

Publication Number : OP - 001

Abstract Referance : 7

Extraoral Fixation of a Gunshot Mandibular Fracture

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Gunshot injuries of maxillofacial skeleton cause significant tissue loss and complicate surgical management of the patients. Multiple fragmented and chronic infected cases are best treated with closed reduction without disturbing periosteal integrity. A 26 years young male patient had been injured with a sniper shot from the left mandible. He had immediate tracheostomy and soft tissue repair of lacerated intraoral wounds. The patient was rehabilitated with external pin fixation-halo device for chronic infected mandibular fracture for 4 weeks and underwent fragment repositioning with a reconstruction plate. Usage of external fixation for mandibular fractures will be also reviewed.

Keywords : gun shot ,fracture,mandible,external fixation

Treatment of Peri-implant Defects in the Rabbit's Tibia with Adipose and Bone Marrow-Derived Mesenchymal Stems Cells

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Aim: The purpose of this *in vivo* study was to evaluate the success of bone regeneration capacity of adipose-derived and bone marrow derived mesenchymal stem cells (MSCs) for the treatment of peri-implant bone defects when applied with Beta-Tricalcium Phosphate(TCP)/Collagen based scaffolds.

Material Methods: Forty implants were placed into the tibiae of 10 rabbits bilaterally. The implants were placed so that four threads were exposed at all aspects. The defects around the implants were treated with one the following treatment modalities; 1) Scaffold loaded with adipose derived MSCs + collagen membrane 2) Scaffold loaded with bone marrow derived MSCs + collagen membrane 3) Autogenous bone + collagen membrane 4) Collagen membrane only. The bone regeneration capacity of each technique was determined by histomorphometry, microCT scans and measuring the implant stability by resonance frequency analysis (RFA).

Results: One limb of one rabbit was excluded because of fracture and another limb was excluded because of infection. Histomorphometric parameters, microCT analyses and RFA measurements on 36 implants revealed that both sources of MSC can form equivalently new bone that is comparable to autogenous bone. The defects treated with membrane only had significantly less bone formation compared to other groups.

Conclusion: Both adipose-derived and bone marrow-derived MSCs are feasible alternatives to autogenous bone grafts in the treatment of peri-implant osseous defects.

Keywords : dental implants, mesenchymal stem cells, rabbit, guided bone regeneration

Publication Number : OP - 003

Abstract Referance : 13

Microstomia Repair : Literature Review and Presentation of 2 cases

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Microstomia as a word means " small opening or window". Basically, decrease in rim lenght of the upper and the lower lips due to trauma, surgery or hereditary etiology causes microstomia .Several surgical techniques were described and the managament may vary according to reconstruction needs of an each case. We will review the literature and present surgical maangement of 2 patients with microstomia.

Keywords : microstomia,oral,surgery

Maxillofacial Pseudoaneurysm as a Complication of Facial Bone Trauma: Report of two rare cases.

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Pseudoaneurysms of the facial arterial system are uncommon and rare vascular complications in the practice of oral and maxillofacial surgery. Maxillofacial pseudoaneurysm may occur following maxillofacial trauma, orthognathic surgery or facial surgical treatment and may appear immediately or weeks to months after the initial injury. The clinical diagnosis may be difficult initially but quick recognition and management is necessary to avoid the devastating consequences. In this presentation we report two rare cases of maxillofacial pseudoaneurysm that occurred following facial bone fractures, the first was related to the internal maxillary artery that occurred as a complication of complex untreated mandibular fracture with bilateral temporomandibular joints dislocation and presented clinically as severe bleeding during surgical repair, and the second case was related to the internal carotid artery occurring secondary to unilateral displaced mandibular condyle fracture. The presentation will highlight the clinical presentations and the procedures that have led to the diagnosis. As part of the management our first patient underwent endovascular embolization with titanium coil and for the second case the patient had intra-cranial stent insertion. Both patients had satisfactory resolution of the complication related to the pseudoaneurysm with a final successful outcome.

Keywords : pseudoaneurysm, complication, facial bone fracture, internal maxillary artery, internal carotid artery, endovascular embolization

Outcomes of MDO in Omani Paediatric Pier Robin Sequence Patient with severe upper airway obstruction.

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Abstract:

Objective: Mandibular Distraction Osteogenesis (MDO) is now widely used for treatment of children suffering isolated and syndromic Pier Robin Sequence (PRS) with severe upper airway obstruction.

Aim: This study aim to assess the outcome and complications of MDO in Omani paediatrics PRS patients with severe upper airway obstruction.

Methodology: A retrospective cohort study of PRS patients with upper airway obstruction treated with internal MDO at Sultan Qaboos University Hospital and Al-Nahda Hospital, Oman, from 2008 to 2014. Data collection included age, sex, pre-operative airway measure, pre-operative endoscopic airway assessment, pre and post MDO removal weight, airway outcome and surgical complications.

Result: 24 patients (19 male and 5 female) underwent MDO (16 isolated PRS and 8 syndromic PRS). Mean age was 17 months (range 13 days – 10 years). Pre-operatively, 12 patients were tracheostomised, 4 intubated and 8 had no airway support. All patients except for 1 underwent full endoscopic pre-operative airway assessment. Recoded complications were 3 cases had temporary facial nerve weakness, 4 skin infections and 1 scar formation. Twenty patients were successfully extubated or decanulated (83.3%) and 4 failed cases (2 failed to decanulate and 2 underwent subsequent tracheostomy). Mean weight gain at time of removal of MDO for successful cases was 1.2 kg compared to 400 grams for failed cases. The success rate of MDO was higher in isolated PRS compared to syndromic PRS (93.7% VS 62.5%).

Conclusion: MDO is a safe intervention with an overall success rate of 83.3% in PRS patients with severe airway obstruction.

Keywords : pediatrics , mandibular distraction osteogenesis , tracheostomy , feeding , upper air way

The investigation of the effectiveness of systemically administered denosumab on bone defects healing

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PURPOSE: Denosumab is a fully human monoclonal antibody that blocks its binding to RANK, inhibiting the development and activity of osteoclasts, decreasing bone resorption, and increasing bone density. Given its unique actions, denosumab are used useful in the treatment of osteoporosis. The present study aimed to investigate the effectiveness of denosumab on bone regeneration when used alone or in combination with grafts (BCP, Xenograft, Autograft)

EXPERIMENTAL DESIGN: In this study, 15 New Zealand white rabbits were used and four calvarial defects were prepared in each animal cranium. Autograft, xenograft, Biphasic calciumphosphate (BCP) were applied to the defects; one defect was left untreated as a control. After surgery only experimental group were administered to the systemically subcutaneous injection denosumab (10 mg/kg/month) for 2 month (n=8 group). Then rabbits were sacrificed at 8 week after, the samples were sent for histological and histomorphometric analysis to evaluate and compare the volume and area of regenerated bone.

RESULTS: Histomorphometric analysis showed that denosumab increased bone regeneration when denosumab was used in combination with autograft, a further significant increase in new bone formation was observed compared with that when other grafts was used (p:0.015; p<0.05).

CONCLUSIONS: Denosumab has a positive effect on bone formation when used alone and in combination with autograft

Keywords : bone defects, denosumab, bcp, xenograft, autograft, bone regeneration

Three-Dimensional Volume Change after Maxillary Sinus Floor Augmentation in the Presence of an Antral Pseudocyst

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Purpose: The purpose of this study was to analyze the effects of antral pseudocysts on bone graft material volume in a sinus-floor augmentation procedure.

Materials and Methods: A maxillary sinus lift procedure using lateral window technique was performed in 40 patients, of which 20 patients had an antral pseudocyst in their maxillary antrum; the remaining patients were a control group with no pathology in their maxillary sinus. 100% allogenic bone was used for all procedures. For evaluation of the grafted volume of the maxillary sinus area, CBCT scans were taken 10 days and 6 months after the operation. Mimics software program was used to evaluate the three-dimensional resorption volume rate.

Results:

Of all the procedures, only one graft infection and case of sinusitis was seen in the control group. This patient was excluded from the study and replaced with another patient. One implant failure also occurred in the control group. No other graft infections or sinusitis formations were encountered in either group. The graft volume reduction rate of graft material in patients with antral pseudocysts from 10 days after surgery until 6 months later was 32.9%, compared to 11.28% in the control group. Patients with antral pseudocysts had a considerably higher rate of graft volume resorption than patients without antral pseudocysts ($p < 0.01$).

Conclusion: Although application of sinus-floor augmentation in the presence of antral pseudocysts seems to be reliable, the resorption rate of grafted area volume in maxillary sinus floors is considerably fast. Thus, surgeons should take into consideration this volume resorption rate before operations.

Keywords : antral pseudocyst, bone graft, sinus floor augmentation, three-dimensional radiographic changes

Objective evaluation of patient compliance to treatment of TMJ disorders by wearable micro-sensors.

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OBJECTIVE: The aim of this study is to acquire objective wearing-time of oral appliances used for treatment of TMJ disorders by heat-sensing micro-sensors and compare treatment outcome among patients with differing amount of wearing-time.

METHODS: 32 patients complaining TMJ pain and anterior displacement of disc with reduction associated with bruxism were included. patients were called for follow up on 1st, 2nd, 4th, 8th and 12th week of treatment.

RESULTS: Initial results of this ongoing study suggests that patient compliance to oral appliance therapy is less than anticipated amount. Average wearing time for first week was 5.80 hours/day and appliances were used properly average 4.18 days a week. 1 month following administration of appliances average usage was 5.29 hours a day and appliances were properly used for average 10,75 days of first month.

CONCLUSIONS: To conclude patients find wearing oral appliances difficult and wearing time of these appliances is less than the recommended amount.

Keywords : tmj, micro-sensor, compliance, wearing-time, oral appliance, bruxism.

Publication Number : OP - 009

Abstract Referance : 24

EXTRACAPSULAR SUPRADISCAL SURGICAL CORRECTION FOR TMPOROMANDIBULAR JOINT INTERNAL DERANGEMENT(ELSHEIKH TECHNIQUE)

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Background

Internal derangement of temporomandibular joint represents a real challenge over the past decades and causes many functional and psychological problems, many procedures had been introduced for correction of this problem but results were not satisfactory.

Patients and methods

This study was carried out on 50 patients complaining of temporomandibular joint internal derangement requiring surgical treatment with different age groups ranging from 13 to 50 years, 47 of them were females. In this study we introduced a new procedure which composed of two parts (done in one stage) to alleviate the derangement problem (ELSHEIKH TECHNIQUE).

Results

Results were very promising based on objectives and subjective remarks.

Keywords : temporomandibular, joint, internal, derangement

Efficacy of Marsupialization in Preadolescent Patients

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Dentigerous cysts

(DCs) are benign odontogenic cysts that develop from the reduced enamel epithelium related to the crown of an unerupted and/or impacted tooth. DCs are usually a symptomatic intraosseous lesions that affect the bones of the maxillofacial complex, interfering with tooth eruption. The treatment modalities range from marsupialization to enucleation of the lesion and are based on the involvement of the lesion with the adjacent structures. When large cysts are involving unerupted permanent teeth, marsupialization is the better option.

Marsupialization is a simple treatment technique that can be easily tolerated by the patients especially preadolescents, and it has low complication rates. The other advantages of marsupialization are preserving vital structures and allow eruption of impacted teeth.

The purpose of this presentation is to emphasize the superiority of marsupialization especially in preadolescence period. It should be considered as a primary treatment method of the cysts in appropriate cases.

Keywords : marsupialization, odontogen cyst, treatment, conservative treatment

Publication Number : OP - 011

Abstract Referance : 34

Use of Orthodontic Anchorage Screws for Treatment of Mandibular Fractures

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Orthodontic anchorage screws (OAS) or mini-screws are becoming increasingly more common in many orthodontic indications. These screws are also useful appliance for intermaxillary fixation as a conservative treatment of mandibular fractures. We present mandibular fracture cases treated with OAS. Indications and techniques of the method were discussed in light of literature.

Keywords : mandibular fracture, orthodontic anchorage screw, intermaxillary fixation, conservative treatment

POSTERIOR FACIAL HEIGHT CORRECTION; A CHOICE BETWEEN SPLIT RIB BUNDLE GRAFT AND ARTIFICIAL CONDYLE

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Posterior facial height disturbances may result from many problems; trauma, ankylosis, congenital and after tumor ablation leading to facial asymmetry and occlusal disturbances. This study was carried out on 20 patients of posterior facial height disturbances patients some of these patients were reconstructed with split rib bundle graft and the other 10 patients were reconstructed with artificial condyle. Patients reconstructed with artificial condyle exhibited more functional and aesthetic problem results with long term stability than the group reconstructed with split rib bundle graft.

Keywords : tmj,condyle, costochondral, facial height

Effects of local and systemic boric acid on synthetic bone grafts in the repair of critical size defects

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Abstract

Objective: The aim of this study was to assess the effectiveness of local and systemic administration of boric acid (BA) in promoting new bone formation in critical size bone defects in rat mandibles.

Materials and Methods: Thirty-six male rats were divided into six groups (two groups were control groups, and the other four groups were experimental). Each group contained six animals. B-tricalcium phosphate graft material was used for filling defects in all groups. No additional treatments were used in the control groups. In the systemic boron (SB) groups, the animals received graft material plus 0.3 mg/kg boric acid daily via the oro-gastric pathway. BA was given to the rats 1 day after the operation and daily during scarification. In the local boron (LB) groups, 0.3 mg/kg diluted boric acid was inserted in the graft material by syringe. Eighteen rats were euthanized after 15 days, and the remaining rats were euthanized after 45 days. Histomorphometric evaluation was performed to analyze new bone formation, the number of osteoblasts and capillaries, and the intensity of the inflammatory cells. Immunohistochemistry analyses was also performed to evaluate BMP-2, TGF- β 1, VEGF, OPG, and RANKL.

Results: On days 15 and 45, bone formation increased significantly in the LB groups compared to the SB and control groups. The SB groups also showed superior bone regeneration compared to the control group. In addition, the LB and SB groups showed superior effect compared to the control group in terms of histomorphometric and immunohistochemistry markers.

Conclusion: This study has demonstrated that boric acid, especially local administration, may hasten new bone regeneration and decrease the healing period of grafted areas.

Keywords : critical size defect, rat, mandible, boric acid, synthetic graft

Publication Number : OP - 014

Abstract Referance : 57

Biomechanical Evaluation Of Oversized Drilling On Implant Stability – An Experimental Study In Sheep

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Objective: The aim of this study was to evaluate the effect of oversized drilling on implant success and secondary stability.

Methods: We employed 4 mm in diameter and 10 mm in length alumina blasted implants. 16 implant sites were prepared on the proximal tibias of the 2 sheep. In the right tibia, a standard preparation with 3.5 mm diameter was performed at the control group, while, in the left tibia, an over-preparation with 4.2 mm diameter was performed at the experimental group. However, the implants of the control group were nonmobile, the experimental group had rotational and vertical movements. The initial implant stability was measured using the resonance frequency analysis (RFA). Animals were sacrificed after 12 weeks. After the sacrifice of the animals, RFA and reverse torque (RT) values were measured.

Results: The results showed that there was no statistically significant difference between the experimental and control group in terms of RFA and RT values.

Conclusion: Osseointegration can be achieved in the absence of primer stability in the 12 weeks' period of healing time even for alumina blasted implants.

Keywords : animal study, dental implant, implant stability, osseointegration, oversized drilling.

Publication Number : OP - 015

Abstract Referance : 79

Osteochondroma of the Tongue – A Case Report.

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Osteochondroma, a benign tumor of osseous and cartilaginous origins, generally develops in osseous tissue and is frequently found near the end of long bones. Relatively rare in the craniofacial region, osteochondroma is common in the mandibular condyle and coronoid process. Osteochondroma arising in the soft tissues of maxillofacial region is extremely rare. In this paper, we report on a rare case of osteochondroma arising in the tongue.

Keywords : osteochondroma, tongue

Mixed Radiolucent-Radiopaque Lesions In The Mandibular Posterior Region: A Case Series

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Objectives: A large variety of lesions may involve in the maxillofacial region. Bone lesions have different radiographic feature such as well-deliniated radiolucent lesion, unilocular-multilocular radiolucent lesion, mixed radiolucent-radiopaque lesion. Differential diagnosis via radiographic, clinical and histopathologic correlation is usually the most beneficial way. Especially fibro-osseous lesions have similar radiographic characteristic and usually located in the mandible. Although these pathologies have been grouped under fibro-oseeous lesions, a more spesific diagnosis may be critical because of different surgical necessities range from none to complete removal. The aim of this report was to present a case series of posterior mandibular fibroosseos lesions.

Case series: Six posterior mandibular fibroosseous lesions (4 focal cemento-osseous dysplasia, 1 florid cemento-osseous dysplasia and 1 cementoblastoma) were presented in this report. The mean age of the patients was 31. The differantial diagnosis, clinical, histopathological and radiological features, surgical treatment proceures and follow-up period of the patients were explained in detail.

Conclusion: Fibro-osseous lesions should be considered for differential diagnosis of mandibular teeth related radiolucencies. During the radiolucent period of lesions, they may be confused with apical periodontitis, traumatic bone cyst or radicular cyst. During the mixed period the lesions may misdiagnosed as Pindborg tumor or calsified odontogenic cyst. To ensure correct diagnosis and perform ideal treatment, detailed radiographic and clinical examination should be made.

Keywords : pathology, fibro-osseous lesions, differential diagnosis

A Case Report: Surgical Management Of Obstructive Sleep Apnea in Treacher Collins Syndrome

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Introduction

Treacher Collins syndrome or mandibulofacial dysostosis is a autosomal dominant congenital disorder characterized with craniofacial deformities. It's typical features are downward slanting eyes due to underdevelopment of zygomatic bone, hearing loss due to malformation of mid-ear bones and ears and malnutrition accompanied with OSAS due to micrognathia. Our aim is to present the surgical management of micrognathia with mandibular distraction protocol.

Case Report

A ten year old girl has been brought to our clinic by her parents and the main complaint was that she was unable to sleep. Clinical observation showed that mandible was too underdeveloped that the patients tongue was outside her mouth. She was unable to close her mouth and drooling constantly. The patient was underdeveloped due to malnutrition.

Panaromic and CT images also supported clinical view of the patient. We decided that mandibular distraction would prevent drooling and help with the sleeping problem because advancing the base of tongue and hyoid bone increases the pharyngeal airway. After two weeks of distraction, our patients sleeping and feeding problem was improved.

Discussion

The children having a retruded mandible compromise a condition with potential for morbidity and mortality due to respiration, feeding and sleeping problems. Application of mandibular distraction osteogenesis is an important component in treatment of OSAS and permits mandibular advancement in treacher collins syndrome. Moreover, It is an early surgical part of the treatment stages of the syndrome. During the growth of the children, overcorrection of advancing the mandible is preferable. Bilateral mandibular distraction is a useful method to improve pharyngeal airway, expanding the mandible and advancing the base of tongue and hyoid bone.

Keywords : distraction osteogenesis, obstructive sleep apnea, treacher collins syndrome

Management of patients receiving bisphosphonates: A case series

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Introduction: Bisphosphonates (BPs) are used to treat osteoporosis and bone metastases from malignancy. They may result in BPs-related osteonecrosis of the jaws (BRONJ) in a subset of patients receiving BPs. This study examined management of BRONJ lesions and patients at risk category.

Methods: This retrospective clinical study included a series of 16 cases of BRONJ. We recorded all patients' symptoms and clinical findings and classified each patient into a BRONJ stage (at risk category and 0–3; stage). Four out of 16 patients were at risk category who had no apparent necrotic bone following dental procedures. 12 patients referred to our clinic for treatment of BRONJ lesions

Results: Four out 12 patients with BRONJ lesions treated surgically. Conservative treatment alone was delivered to 8 out of 12 patients. Dental extractions are the most potent local risk factor. Bisphosphonate exposure ranged from 3 months to 6 years. Ages ranging from 32 to 77 years, were included in this study. Underlying diseases in our patients were malignant diseases, osteoporosis, multiple myeloma and Paget disease. Ten out of 16 patients prescribed bisphosphonates for malignant metastases.

Conclusion: Although both conservative and aggressive surgical approaches can result in successful treatment of BRONJ lesions, aggressive surgical treatment needs a shorter mean duration to achieve complete remission of BRONJ lesion than conservative treatment. In conclusion prevention of BRONJ development is the best solution for better quality of lives of patients.

Keywords : bronj, bisphosphonate necrosis

Management of Post Traumatic Deformity; a Case Report

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A 21 years old male patient with history of traffic accident and post traumatic surgery at INT clinic referred to Selcuk university faculty of dentistry department of oral and maxillofacial surgery with complain of malocclusion and function loss. After oral and radiographic examination false fixation of the maxilla or relaps detected. Lefort I osteotomy was performed to advance the maxilla and get the maxilla to class I occlusion. For dental rehabilitation block graft harvested from mandibular symphysis area and applied to maxilla anterior region with allograft. After healing period dental implants placed and 4 months later dental prosthesis were performed.

Keywords : trauma- post trauma - deformity

THE CHANGE OF LOWER LIP ESTHETIC FOLLOWING BONE GRAFT HARVESTING FROM MANDIBULAR SYMPHYSIS

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Objectives: The mentalis muscles elevate the central lower lip and support the lip vertically. Following the surgical release of mentalis muscle, lip incompetence and/or increase lower incisor exposure may be occurred due to wrong closure, undesirable attachment or lengthening of these muscle fibers.

The aim of this study was to evaluate the extent of lip ptosis, lower incisor exposure, and other soft-tissue changes following onlay bone graft harvesting from mandibular symphysis.

Methods: Seventeen consecutive patients (13 females, 4 males) who underwent bone graft harvesting operation from mandibular symphysis were included in this study. Preoperative and sixth month postoperative digital lateral cephalograms were analyzed to evaluate the horizontal and vertical soft-tissue changes of the lower lip and chin. The statistical comparison of preoperative and postoperative findings was performed with *Regression analysis*.

Results: Lower incisor exposure increased 1.41 mm six months after bone graft harvesting procedure and this increase was statistically significantly ($P < 0.05$). Vertical position of soft tissue supramentale was placed more inferiorly and this vertical change was also statistically significant ($P < 0.05$). The positional changes of lower lip soft tissue were not significant on horizontal plane ($P > .05$).

Conclusions: Even the mentalis muscle fibers were placed to its original position during the closure of mucoperiosteal flap, vertical positional changes of the lower lip can be observed following the bone graft harvesting from mandibular symphysis.

Keywords : lower incisor exposure; chin ptosis; lower lip ptosis; bone graft harvesting

Effect of Botulinum Toxin Type A in the treatment of TMD

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Etiology of temporomandibular disorder (TMD) is generally multifactorial. Occlusal factors, trauma, emotional stress, pain and parafunctional activities are common etiologic factors encountered.

Clinical characteristics of muscular disorders are dysfunction, pain in rest, increased pain with function, feeling of muscle tightness and pain muscle palpation.

Management of TMD is aimed to improve function and reduce pain and discomfort. Soft diet recommendations, pharmacotherapies, physical therapies, occlusal appliance therapies are commonly used treatment methods for the patients with myofacial pain and dysfunction (MPD).

Recently, the therapeutic uses of Botulinum Toxin type A have expanded exponentially to include a wide range of medical and surgical conditions. Botulinum toxin is a neurotoxin derived from a bacteria called clostridium botulinum. The toxin inhibits the release of acetylcholine (ACH), which is a neurotransmitter responsible for the activation of muscle contraction and glandular secretion, and its administration results in reduction of tone in the muscle.

The use of Botulinum Toxin type A is a minimally invasive procedure and is showing quite promising results in management of muscle-generated dental diseases like Temporomandibular disorders, bruxism, clenching, masseter hypertrophy and used to treat functional and esthetic dental conditions.

In this study, we report the outcomes of 20 TMD patients with MPD who were treated with conservative and nonsurgical approaches in combination with botulinum toxin injections.

Keywords : tmj, botulinum toxin, bruxism, tmd, masticatory system disorders

Efficacy of bilateral mental nerve block with bupivacaine for postoperative pain control in mand. parasymphysis Fx

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Efficacy of bilateral mental nerve block with bupivacaine for postoperative pain control in mandibular parasymphysis fractures

Postoperative pain control is extremely important for patients and surgeons. Due to the surgical trauma and subsequent cascade release of pain mediators various degree of pain are stimulated. Opioid drugs administration is common technique to reduce pain from surgical trauma. However, the use of opioids during and after surgery can be associated with an increased incidence of ventilatory depression, sedation, nausea, vomiting, pururitis, difficult voiding and ileus. In maxillofacial surgeries in which patients often receive intermaxillary fixation, these complications can lead to a life-threatening complication especially in early postoperative hours and in recovery room. Various methods have been proposed to minimize these side effects. Bupivacaine is a well-known long acting local anesthetic solution. The aim of current study was to evaluate the efficacy of bilateral mental nerve block with this solution for post operative pain control and reduction of opioid drugs need in traumatized patients referring to Tabriz trauma center. A double blind case - control study was performed for this research

Keywords : bupivacaine, mandibular fracture, pain

COMPARISION OF EFFICIENCIES OF BUPIVACAINE AND ARTICAINE FOR POST OPERATIVE ANALGESIA IN IMPACTED THIRD MOLAR SURGERY

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Pain is the most prevalent complication after surgical removal of the mandibular third molar. Post operative pain is generally related with bone osteotomy during extraction of third molars. According to literature, pain after surgical extraction of a third molar makes a peak at 6-8 hours after surgery.

Articaine is a common LA used in oral surgery. Even though it is considered a long lasting anesthetic then the other local anesthetics , such as bupivacaine, etidocaine or ropivacaine, with more extended anesthetic effects. Bupivacaine is often chosen in prolonged operations due to its extensive anesthetic period. Moreover, some authors have attributed the ability to attain longer postoperative analgesic periods, bupivacaine is reducing analgesic requirements in the early postoperative hours when the maximum pain intensity is reached. The onset of postoperative pain is majorly important for the patient when undergoing a surgical procedure. The patient's requirement for postoperative opioid analgesics is considerably lessened when bupivacaine is administered for pain control.

The aim of this study was to compare the post operative analgesia efficiencies of bupivacaine to articaine in impacted third molar surgery and however to compare use of bupivacaine-infused absorbable gelatin hemostatic sponges versus to articaine-infused gelatin hemostatic sponges for postoperative analgesia in impacted third molar surgery.

Keywords : dentoalveolar surgery, pain, postoperative analgesia, bupivacaine, articaine

A pilot study: Is there any correlation with the orthognahic surgery and sleep apnea ?

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Objective: The aim of this study was to evaluate the pharyngeal airway volumetric changes on patients with bimaxillary orthognathic surgery on Class III patients by using 3 dimensional simulation programme and observe whether there is any correlation with the surgery and sleep apnea.

Material and Method: Five Class III adult patients were included in the study to evaluate phareyngeal airway after orthognathic surgery (mean age 21 years old.). All the patients were treated with mandibular set back and maxillar advancement. Polysomnography and computed tomography were done before surgery and 9 months after surgery. The tomographic data were transferred to computer using OsiriX (OsiriX Foundation, Geneva, Switzerland) programs. The pharyngeal airway was divided into three sections (Upper, middle and lower phareyngeal airway) The pre-treatment and post-treatment pharyngeal airway evaluated by linear and volumetric values. Polysomnographic parameters consist of apnea hypopnea index (AHI), REM of sleep and desaturation index. The results among the groups were evaluated by using Mann Whitney U test. The corelation between the changes of phareyngeal airway and polysomnographic results were evaluated by using Spearmen's rho test.

Results: Before and after surgery the phareyngeal airway changes and polysomnographic outcomes did not show any significant ($P>0.05$). Lower phareyngeal airway showed correlation with AHI and desaturation index. Upper and lower pharyngeal airway did not show any correlation with apnea parameters.

Conclusion: The orthognathic surgery which includes mandibular set back affects negatively the apnea scores and oxygen saturation index. The advancement of maxillary increase the total volume of the phareyngeal airway but this improvement did not influence the polysomnographic parameters.

Keywords : bimaxillary surgery, pharyngeal airway, apnea, polysomnographic value

BONE HEALING IN CRITICAL SIZE DEFECTS TREATED WITH EITHER BONE GRAFT, HYALURONIC ACID OR COMBINATION OF BOTH MATERIALS

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Introduction: Different types of grafts, artificial materials and techniques were introduced and positive effects during treatment of large bone defects were stated in previous researches. Hyaluronic acid (HA) provide lots of benefits in a wide variety of biological events such as wound healing, osteogenesis and immune response. The aim of this study was to evaluate bone healing parameters after local HA and alloplastic bone graft augmentation alone or in combination at the fourth and eighth weeks of bone healing in rat critical-size calvarial bone defects.

Materials and Methods: Twenty four Sprague-Dawley rats were used for this study. Four, 5-mm diameter, critical-size bone defects were created with a trephine bur to the parietal and frontal bones bilaterally symmetrical. Treatments were distributed to defects in a planned manner as control, HA, graft and HA-graft combination. Rats were randomly divided into two groups and were sacrificed at the fourth and eighth weeks of surgery. Calvarium of rats were harvested and processed for histologic analysis. Tissue sections were evaluated under light microscope. Defect closure, inflammation, new bone formation, angiogenesis and connective tissue formation were investigated. For comparing different treatment groups Kruskal-Wallis statistical analysis was used.

Results: Defect closure and new bone formation were significantly higher in the HA group at the fourth ($p<0,01$) and eighth weeks ($p<0,05$). However, HA is ineffective on connective tissue formation, angiogenesis and inflammation. Our data also indicated that graft augmentation enhanced new bone formation, defect closure, angiogenesis and connective tissue formation significantly in both graft and HA-graft combination groups ($p<0,01$) at the fourth and eighth weeks.

Conclusion: HA is effective in bone production and related healing parameters. However, graft augmentation enhance almost every bone healing parameters. Results indicate that augmentation with graft materials is the essential treatment procedure for critical size bone defects.

Keywords : hyaluronic acid, bone graft, bone regeneration

IMPROVEMENT OF LABIAL CANTING DUE TO ASYMMETRIC ORTHOGNATHIC SURGERY

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AIM: Labial canting seems to be normal in most patients and can be ignored. However, patients treated with orthognathic surgery expect elimination of labial canting with correction of facial asymmetry. The aim of this study is to evaluate the changes observed in the labial plane inclination in patients with or without labial canting, following two-jaw orthognathic surgery.

MATERIALS AND METHODS: 30 adults who received two jaw orthognathic surgery (Le Fort I osteotomy and bilateral sagittal split ramus osteotomy with/without genioplasty) were included in the study. The patients were divided into two groups depending on whether they have lip canting or not before orthognathic surgery. 14 patients presenting 2° or more labial canting were included in group 1 and 16 patients presenting less than 2° were included in group 2. Frontal facial photographs and posteroanterior cephalometric radiographs of patients taken before and at least 6 months after surgery were examined. Skeletal and soft tissue changes obtained due to orthognathic surgery were evaluated with angular and linear measurements and parameters were statistically analyzed.

RESULTS: As a result of asymmetrical impactions and down fractures in the maxilla, position of menton was corrected in group 1. The asymmetries of the facial soft tissues were reduced due to the correction of the hard tissue asymmetries. The correction of the soft tissues was as prominent as the hard tissues and labial canting observed before surgery was prominently reduced.

CONCLUSION: The vertical asymmetry of the jaws can be successfully eliminated and well balanced aesthetic smiles can be obtained with asymmetric two jaw orthognathic surgical procedures.

Keywords : orthognathic surgery, labial cant

In The Le Fort I Osteotomy Performed Patients Effect of Cinch and V-Y Suture On The Lip and Nose Soft Tissue

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The purpose of this study was to evaluate the effect of cinch suture and VY suture on nose and upper lip appearance for prevention of unexpected changes following maxillary advancement and impaction surgery and to compare the measurements obtained from marked reference points on the nose and lips in 15 consecutive patients.

15 orthognatic surgery patient underwent maxillary advancement and impaction surgery because of treatment of malocclusion related with growth anomaly, were included this study. The age of the patients are between 18 and 29 (mean age 24). 14 class III patients and class I patient were treated by orthognatic surgery. Bimaxillary surgery were applied to all patients. The measurements between the marked references points were recorded to detect the changes on the nose. Lateral cephalometric graphies were obtained preoperatively. As soft tissue edema due to surgery relieves 6 months after the surgery, 6 months after the surgery clinical and radiographic measurements were obtained to compare with the preop data.

After orthognatic surgery, in the V-Y suture performed group mean 1,28 mm not significant increased, in the V-Y suture not performed group mean 0,3 mm not significantly decreased observed. Alar width; in the cinch performed ($p=0,010$) and not performed group ($p=0,016$) statistically significant increased observed. The differences between the groups were not statistically significant ($p=0,463$). Subalar width; in the cinch suture performed group mean $1,88\pm0,64$ mm significant ($p=0,010$), in the cinch suture not performed group $2,57\pm0,53$ mm significant increased observed ($p=0,015$). In this measurement differences between groups were statistically significant ($p=0,047$). Nasolabial angle; in the cinch suture performed group $4,63^\circ\pm9,68^\circ$ decreased, in the cinch suture not performed group $2,29^\circ\pm8,42^\circ$ increased observed ($p=0,865$). Nose nostril height not important changes, in the width statistically not significant changes done. When in the cinch suture performed group right nostril width increased, left nostril width decreased. In the cinch suture not performed group right and left nostril width increased observed.

Keywords : maxilla, soft tissue, surgical closure techniques, orthognathic surgery

Surgical Treatment of TMJ Internal Derangement : Which Procedure?

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Internal derangement (ID) is a condition of TMJ that interferes the smooth action of a joint, lead to pain and restricted mouth opening. This disturbance can lead to degenerative changes of the disc, cartilage and bony frame of the joint. According to the many studies about internal derangement of TMJ, there is an agreement that conservative approaches are applied first in the management of ID. If conservative methods fail, open surgical procedures are applied.

The aim of this study is the comparision of discectomy, discectomy with replacement and eminectomy procedure to discuss the appropriate procedure for different disturbances of TMJ internal derangement and discussion of ending time of the noninvasiv conventional treatments.

The medical notes of 258 patients who had refered to our service with internal derangement syptoms over 5-year period between 2009 and 2014 were retrospectively reviewed.

Patients were staged by wilkes classification in order to clinical and radiological findings. Patients has end stage TMJ diseases (Wilkes stage 5) were excluded from this study. Discectomy, discectomy with dermis-fat grafting and eminectomy were performed to the patients who received open joint surgey after the convantional treatments failed. All of the operated patients were asked the question that were they content of operation. Success of the operation types were statistically evaluated regarding to this question and clinical measurements. Thirty five of 258 patients were male (27%). According to the clinical and radiographic findings, 103 of the patients were diagnosed as reducdated disc displacement, 70 patients were irreducdated disc displacement and the remaining 85 patients had irreducdated disc displacements with degenerative changes. Thirty patients did not receive any treatment.

Thirty open joint surgeries were performed in total. Two eminectomy, one discectomy with replacement and one discectomy surgery were failed.

There are a few surgical procedures described for TMJ ID; open surgery and rehabilitation increased the range of movement. Depending on literature many studies have been showed that open surgeries are more effective at eliminating or decreasing the pain.

Keywords : tmj, internal derangement, surgical treatment, open surgery

Mikroleakage and Push-Out Bond Strength of Zirconia Pins Used As A Core Material in Retrograde Fillings

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ABSTRACT

OBJECTIVE: The aim of this in-vitro study was to evaluate the apical leakage and bond strength of Mineral Trioxide Aggregate (MTA) and BioAggregate application with or without zirconia pin as a root-end filling material.

METHODS: Eighty-six extracted single rooted, fresh human teeth were used in the study. All teeth except positive control group were filled with gutta-percha and AH Plus root canal filling materials. Three teeth in the positive control group were filled only with gutta-percha. The root apices of teeth in negative control group were covered with three layers of nail polish. The apical 3 mm of the samples were resected by using diamond saw perpendicular to the axis of teeth. The root-end cavities were prepared by using ultrasonic retro tips in 5 mm depth. The specimens were randomly divided into four groups of 20 samples. In groups 1,2,3 and 4 root-end cavities were filled with MTA, BioAggregate, MTA and zirconia pin, BioAggregate and zirconia pin, respectively. The zirconia pins that were prepared at the same size of ultrasonic retro tip were placed with digit pressure into the root-end cavities filled with MTA or BioAggregate. The microleakage of samples was tested by using fluid filtration method and the bond strength of root-end fillings in all groups were evaluated by using push-out test method. The data were evaluated by using SPSS, 17.0. One-way ANOVA and the Post Hoc Tukey HSD tests were used for the analysis of data. Statistically significant differences among the groups were set at $p \leq 0.05$

RESULTS: Group 4 showed lower apical microleakage than the other groups, however statistically significant difference was found between groups 1 and 4 ($p=0.015$). Group 4 showed higher bond strength than the other groups. There was statistically significant differences between groups 1 and 4 ($p=0.005$), and groups 3 and 4 ($p=0.003$) in terms of bond strength.

CONCLUSIONS: New developed bioceramic containing root-end filling material BioAggregate and MTA showed similar results in terms of sealing ability and bond strength. In addition, application of zirconia pin into root-end cavities showed better results than the conventional root-end filling technique. It is suggested to conduct further studies to evaluate the effects of zirconia pins used with different materials which simplifies the retrograde filling procedure.

Keywords : bioaggregate, fluid filtration , mta, push-out, zirconia pin

Mandibular reconstruction using CAD/RPM technology for preoperative surgical planning in odontogenic myxoma

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Background: Odontogenic myxoma is a benign odontogenic tumor with locally aggressive behaviour. Since this neoplasm is rare in the oral cavity, there are currently no clear surgical management guidelines for odontogenic myxoma, and a variety of approaches may be used although a propensity exist towards radical excision. In addition if a resection is planned in order to optimize reconstruction and rehabilitation proper treatment protocol should be instituted. In this case report preoperative planning and intraoperative handling techniques are presented.

Patients and Methods: An asymptomatic lesion was diagnosed as an odontogenic myxoma. The location of the planned resection, the cosmetic and functional demands of the patient, and the nature of the tumor dictated for a segmental resection. Surgical and reconstructive planning, a CAD / RPM (Computer assisted design / Rapid Prototyping Modelling) plan was designed for the resection and reconstruction. Rapid Prototyping Modelling-designed models utilized for cutting guides for the mandible and harvesting of the ileum cortico-cancellous grafts. A reconstruction plate was prepared at this stage to minimize operating time. In addition a resection template is prepared and used as an acrylic cutting guide/ template that was placed in-situ to handle the segments following resection. Another template wasdesigned to be used at the donor site.

Conclusion:The patient is followed-up for 6 months and currently is free of recurrence. The used technology in terms of a CAD/ RPM considerably shortened the operation time, provided avoidance of mishaps of malocclusion intraoperatively, and proper transfer of preoperative surgical planning. Collectively both operating team and patient benefitted from this technology.

Keywords : computer assisted surgical planning ; odontogenic myxoma ; mandibular reconstruction; operation time; rapid prototyping ; segmental resection; cad/ rpm

Histopathologic evaluation of effects of local simvastatin and photobiomodulation by led on bone healing

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Objective: The aim of this study is to evaluate the effect of photobiomodulation (PBM) and locally applied simvastatin on bone formation in critical size defects formed in rat calvaria.

Material and Methods: A total of 28 Sprague-Dawley male rats average aged of 18 weeks were used. Bilateral 5 mm critical sized calvarial defects (CSD) were created in experimental animals. 0,5 mg simvastatin solution was embedded to gelatin sponge and locally applied in the one of the defects. The other one was left empty. Half of the animals were subjected to PBM treatment where on the remaining half were left spontaneously healing. The animals were sacrificed at days 8 and 15. The specimens were histopathologically analyzed.

Results: Histopathologic evaluation revealed that the 15 day new bone formation levels were significantly higher compared to 8 days.

Conclusion: PBM and local simvastatin applications had favorable effects on new bone formation and antiinflammatory action in the rat CSD.

Keywords : simvastatin, photobiomodulation, new bone formation, local, defect

Mantle Cell Lymphoma of the Oral Cavity Clinically Misdiagnosed as Pleomorphic Adenoma: A Case Report

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Mantle cell lymphoma (MCL) is recognized as a distinct clinicopathologic subtype of B-cell non-Hodgkin's lymphoma. MCL of the oral cavity is an uncommon diagnosis. Most oral MCLs occur in an elderly male population and have a possible predilection for the palate. Like MCL occurring in other sites in the body, the prognosis and outcome of oral MCL appears to be poor. Recognition of MCL and its differentiation from other non-Hodgkin's lymphoma (NHL) subtypes is important because of both the variable prognosis and changing therapeutic regimens.

In this poster, 74 year old female patient who had an asymptomatic swelling with normal overlying mucosa misdiagnosed as pleomorphic adenoma, localized on right side of the palatal region, its surgical treatment and pathological reports is presented.

Keywords : mantle cell lymphoma, pleomorphic adenoma, pathology

Conservative treatment for large keratocystic odontogenic tumors in the jaws: Report of 3 cases

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A keratocystic odontogenic tumor is a benign intra-bone mass originating from dental lamina or its residue. The term odontogenic keratocyst was first used by Philipsen in 1956. This lesion was renamed as Keratocystic odontogenic tumor (KCOT) and reclassified as neoplasm in World Health Organisation's 2005 edition due to its biological behavior. Clinically, KCOT is frequently involved in mandibular region. Due to its infiltrative characteristic, when KCOT involved near the maxillary sinus, it could expand to giant size and occupy the entire maxilla. It almost always occur within the bone, except small number of peripheral KCOT. The cystic lumen is filled with creamy proteinaceous material or clear yellowish fluid which is also a diagnostic marker. Treatment options; enucleation and open packing/surgical obturator, marsupialization and open packing/surgical obturator, decompression by marsupialization followed by enucleation.

In this paper we aimed to describe three cases of large KCOT, surgical, clinical and radiological aspects with follow-up results, overview of various aspects with literature data.

Keywords : keratocystic odontogenic tumor, keratocyst, jaws, maxilla, mandible, marsupialization, decompression, enucleation, surgical obturator

A new surgical approach to paraalar hypoplasia

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Objective

The aim of this presentation is to define a new surgical approach to paranasal area for correction of alar base hypoplasia in order to improve paranasal and nasolabial aesthetics.

Methods

Maxillary anterior segmental osteotomy was combined with high level lateral nasal wall osteotomy. Lateral nasal wall was splitted about 1,5-2 cm above the nasal base to achieve desired aesthetics. Maxillary anterior segmental distraction started 7 days following to surgery. The duration of the distraction was determined according to occlusal relationship and soft tissue changes. The distractor was removed after 8 weeks of consolidation and the treatment was continued with straight-wire orthodontic mechanics.

Results

When pre and postoperative radiographs were overimposed, it was observed that paranasal deficiency and nasolabial angle were improved by these osteotomies.

Conclusions

Paraalar hypoplasia and adjacent soft tissues can be rehabilitated with this presented technique.

Keywords : paraalar hypoplasia, nasolabial aesthetics, nasal tip sag

Reconstruction of Major Anterior Maxillary Defects with Intraoral Distraction Osteogenesis

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Objective

Distraction osteogenesis (DO) is a technique of applying controlled traction across the site of surgically produced bone disruption while it is healing. In the surgically created gap, the technique takes advantage of the regenerative capacity of bone by creating an active area of bone formation. Anterior maxillary defects are among the most complicated ones. Bone grafting attempts are mostly disappointing as the soft tissue and nasal base coverage are not easy. The aim of this study, is to review DO as it applies to major maxillary anterior defects.

Methods

To be able to show the results of this new maxillary horizontal distraction technique we present the usage of DO in cleft and gun shot injuries.

Results

Both bone and soft tissue defects were augmented by horizontal distraction osteogenesis. At the follow up of two months all of the reconstructed sites were stabile with acceptable aesthetics and function.

Conclusions

Intraoral distraction osteogenesis can be successfully used to correct major maxillary defects at cleft patients and gun shot injuries.

Keywords : distraction osteogenesis, cleft patients, gun-shot injuries, case report

Different treatment modalities of cystic lesions of the jaws: a clinicopathological study of 30 cases

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Objective: The aim of this retrospective study was to evaluate the effectiveness of the treatment types in the management of cystic lesions of the jaws.

Methods:The records of odontogenic and nonodontogenic cysts treated in oral and maxillofacial surgery unit between 2008 to 2015 were retrieved and analyzed for age, gender, location of the lesion.

Results: Thirty patients with cystic lesions of the jaws were collected, comprising 29 odontogenic cyst and one nonodontogenic cyst. The most frequent diagnosis was radicular cyst (43,33%), followed by odontogenic keratocyst (keratocystic odontogenic tumour) (40%), dentigerous cyst (13,33%) and nasopalatine duct cyst (3,33%). The overall male to female ratio was 1:1.14. Mean age of the patients was 33.8. Three patients were in the pediatric age group (7 years to 15 years) and 27 were in the adult age group (16 to 83 years). Treatment modalities were: marsupialization, marsupialization with enucleation, total enucleation. The longest marsupialization period was 15.5 months. Second surgical operation was required in two cases (6.66%) and recurrence was found in one case (3.33%).

Conclusions: As a conclusion, clinician should have a knowledge of the biologic behavior and clinicopathologic features of the jaw cysts for an early diagnosis, accurate management of the treatment and adequate surgery.

Keywords : odontogenic cyst, nonodontogenic cyst, jaw cysts, marsupialization, enucleation.

Evaluation of osseointegration with different regeneration techniques in treatment of circumferential bone defects

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Aim: The aim of this study was to evaluate the osseointegration of implants placed in areas with artificially created circumferential bone defects, using three bone regeneration techniques.

Material and methods: The experimental model was the rabbit femur (24), where bone defects were created and implants were placed. The peri-implant circumferential bone defects were filled with a DFDBA (8 rabbits), DFDBA combined with PRF (8 rabbits) or DFDBA combined with rifamycin (8 rabbits). After 4 weeks, the animals were euthanized and bone tissue blocks with the implants and the surrounding bone tissue were removed and processed according to a histological protocol for hard tissues on non-decalcified ground sections. The samples were studied by light microscopy, histometric analysis was performed to assess the percentage of bone in direct contact with

the implant surface and new bone formation a statistical analysis of the results was performed.

Results: In the samples analyzed 4 weeks after implantation, the percentage of bone tissue in direct contact with the implant surface for the three groups were 50.94 ± 5.26 % (DFDBA), 60.07 ± 4.91 % (DFDBA – Rifamisin), 73.43 ± 3.86 % (DFDBA – PRF). The percentage of new bone formation for the three groups were 37.61 ± 1.70 % (DFDBA), 48.51 ± 2.80 % (DFDBA – Rifamisin), 63.09 ± 2.10 % (DFDBA – PRF). In terms of the percentage of bone contact and new bone formation, groups DFDBA – rifamycin and DFDBA – PRF presented statistically significant differences from group DFDBA ($P < 0.05$). DFDBA – PRF group also presented statistically significant difference from group DFDBA – rifamycin ($P < 0.05$).

Conclusion: In conclusion, DFDBA – PRF combination presented a percentage of bone contact with the implant surface and new bone formation statistically greater than in the other groups.

Keywords : dental implant, dfdba, prf, rifamycin, circumferential bone defect

Surgical Approach in Subcondylar Fractures

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Mandible fractures commonly occur in patients who have exposed blunt facial trauma, and the subcondylar region is the most frequently fractured due to its intrinsic biomechanical weakness. Subcondylar fractures most commonly result in medial dislocation of the head of the condyle with a subsequent loss of ramal height that causes open bite and facial asymmetry. Treatment is one of the most controversial aspects in the field of maxillofacial traumatology. This controversy is based on the positive and negative aspects of open and closed approaches for the treatment of this kind of fractures. The treatment can be divided into two major methods: closed reduction and open reduction. Closed reduction requires a period of maxillomandibular fixation (MMF), followed by active physiotherapy. Open reduction allows good anatomical repositioning and immediate functional movement of the jaw. Closed reduction is often associated with reduced mouth opening, decreased patient compliance and potential for ankylosis. Beside this; dislocated subcondylar fractures can not be reduced desired position with closed reduction and can result with malocclusion. In such situations open reduction become compulsory. These situations are; luxation type condyle fractures and dislocated subcondylar fractures.

In the light of these knowledges, we aimed to present our dislocated subcondylar fracture cases, the types of surgical approaches, miniplate osteosynthesis we have achieved and follow-up results with literature data.

Keywords : subcondylar fracture, trauma, surgical approach, preauricular approach, open reduction, maxillofacial traumatology, miniplate osteosynthesis

Surgical Approaches in Orbito-zygomaticomaxillary Complex Fractures

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The zygomaticomaxillary complex (ZMC) plays an important role in maintaining the structure and function of the face. The prominent convex shape of the ZMC makes it particularly vulnerable to trauma. Fracture of the ZMC is one of the most common facial injuries. So the etiology is commonly trauma. Early diagnosis of the fracture is essential for optimal treatment and is directly dependent on appropriate initial evaluation, correct injury assessment. Treatment of ZMC injury has improved due to various reduction methods and development of miniplates, screws and wires. The treatment consist of surgical reduction and fixation of the dislocated bone fragments to their original location. Most ZMC are successfully repositioned with open reduction such as intraoral and transconjunctival approach or closed reduction such as Gillie's approach. The primary goals in treatment include the restoration of the projection and the height of zygoma by accurate reduction and the restoration of the aesthetic. Adequate exposure and reduction by multiple incisions and strong fixation by plates are believed to be essential to achieving satisfactory results.

This presentation is intended discussion and presentation of our orbito-zygomaticomaxillary complex fracture cases which occurred due to facial trauma, surgical reduction and fixation methods we have achieved.

Keywords : zygomaticomaxillary complex , fracture, trauma, facial trauma, surgical reduction, malocclusion, miniplate osteosynthesis, wire osteosynthesis, circumzygomatic suspension, hook traction, infraorbital approach, dingman's approach, intermaxillary fixation

Evaluation of Locking and Non-Locking Reconstruction Plate-Screw System in lateral mandibular defects by FEA

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Background: Reconstruction plate systems have been used to restore function following mandibular resection.

Objective: The purpose of this study is to analyze and compare stress distribution on bone screws and plate systems in locking and non-locking screw-plates design with lateral mandibular defects.

Methods: Solid mathematical model of the mandible was created by three-dimensional finite elements analysis and 25 mm in length of lateral resection was performed on model. Models were reconstructed with two different reconstruction plate system including three 2.4 mm titanium screws. Realistic mastication force was applied by simulating natural muscles vectors. The stress formation on bone and hardware system were evaluated and compared.

Findings: The stress values of the cortical bone, plate and screw system of the conventional plate model was higher than the locking system model. The highest stress values were measured in the proximal segment especially in conjunction with conventional screw system. Furthermore, the distribution of the stress on bone surface more homogeneously in the locking system.

Conclusions: It is evident that in the reconstruction model, the use of locking system offers an additional advantage over the conventional system in 25 mm in length of lateral mandibular defects.

Keywords : locking plate, segmental resection, reconstruction, fea, mechanical stress

CHALLENGING CASES OF BISPHOSPHONATE INDUCED OSTEONECROSIS OF THE JAW

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Objective:

The aim of this presentation was to emphasize the failure of current treatment methodologies in such Bisphosphonate Induced Osteonecrosis of the Jaw (BIONJ) cases.

Methods:

Four patients (3 male, 1 female) with age between 65-81 referred to Başkent University Department of Oral and Maxillofacial Surgery because of symptomatic BIONJ occurrence following tooth removal procedures. All of them had intravenous bisphosphonate (zoledronate) therapy for multiple myeloma, prostate or breast cancer. Two of them had stage 1 and the others had stage 2 and 3 BIONJ according to American Association of Oral and Maxillofacial Surgeon's (AAOMS) classification. Several conservative treatment methods such as superficial debridement of wound, sequestrectomy, prolonged combined intramuscular and oral antibiotics, platelet rich fibrin application for dressing the exposed bone, biostimulative diode laser, ozone therapy and/or hyperbaric oxygen treatment were applied together with zoledronate drug holiday.

Results:

Following all treatment applications, the existence of exposed bone, pain, pus suppuration and/or extraoral fistula were still observed; however, a little improvement was observed in some symptoms after 6 months follow up. All patients have been followed up for 1 year.

Conclusion:

Clinicians should be aware of persistent BIONJ cases and insufficiency of current treatment options is still a universal problem in treatment of BIONJ. Therefore further multicentre outpatient studies to obtain successful BIONJ treatment should be performed.

Keywords : bionj; osteonecrosis; osteochemonecrosis; zoledronate

Treatment of Subcondylar Mandibular Fracture by Transoral Approach

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Fractures of the mandible are the most common fractures of the facial bone as, it is reported that 9 to 45% of mandibular fractures are observed at the condylar process. Mandibular condyle fractures frequently result from scuffles, sports and traffic accidents, with definite geographic differences. The clinical features of the mandibular condylar fracture includes malocclusion, open bite, swelling, tenderness over the joint, loss of mandibular function, deviation of chin, crepitus and laceration on the skin. There is still debate about whether open reduction and internal fixation (ORIF) or closed reduction with maxillomandibular fixation (CR/MMF) should be the treatment of choice for fractures of the mandibular condyle. Factors that influence this choice include the type of the fracture, associated mandibular fractures and risk of complications such as loss of the height of the ramus, malocclusion, anterior open bite, injury to the facial nerve, chronic pain, reduced mandibular function, deviation during mouth opening, restricted mouth opening, and ankylosis . Although closed treatment is the most widely used method, even for the treatment of dislocated condylar fractures, anatomic reduction may be difficult to achieve, compared with open reduction and internal fixation (ORIF). Some authors have considered another method as transoral open reduction. Treatment of subcondylar fractures of the mandible with transoral approach is included within the concept of minimally invasive surgical procedures. This method is a valid alternative to the transcuteaneous approach for the reduction and fixation of extracapsular condyle fractures in selected cases.

The aim of this report is to describe the reduction of the subcondylar mandibular fractures by transoral approach and present the clinical and radiographic results through a case treated in Kocaeli University Faculty of Dentistry, Department of Oral and Maxillofacial Surgery.

Keywords : subcondylar fracture, transoral approach

Development Of A Three-Directional Distractor System For The Correction Of Maxillary Transverse And Sagittal Deficiency

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Objectives

Patients with maxillary deficiency who need both transvers palatal expansion and maxillary advancement are generally treated with two separate surgeries, which lengthen the treatment period, and cause scar formation. The aim of this study was to develop a one step solution for the correction of maxillary deficiency in adult patients. Our goal was to design and produce a bone borne three-directional distractor to achieve simultaneous transvers palatal expansion and maxillary advancement.

Material and Methods

Cone beam computed tomography images of a patient were used to design a three dimensional distractor system. The images have been transported to a projection software (Solid works®), and a virtual three-dimensional maxillary model (V3DM) was created. Three different distractors (D1, D2, and D3) were designed virtually, and adapted to V3DM. Finally a Y-shape segmental osteotomy of the maxillary model was performed for the simulation of distraction osteogenesis. Vertical bite forces were applied on the first molar, and incisive areas. Finite element analysis were performed to investigate biomechanical properties of three different distractors. Maximum distraction lengths of three different distractors were also determined.

Results

234 N of bite force on the first molar region led maximum von mises stresses (MVMS) of 332,376, 217,97, and 335,169 N/mm² in the bodies of D1, D2 and D3, respectively (D3>D1>D2). MVMS that were transmitted from the plates to the maxillary bone was 48,21, 39,05, and 69,6 N/mm² respectively in D1, D2 and D3 (D3>D1>D2).

93 N of bite force on the first incisive region led MVMS of 352,269, 554,922, and 284,428 N/mm² in D1, D2, and D3, respectively (D2>D1>D3). MVMS of bone were 44,93, 244,12, and 104,96 N/mm² respectively in D1, D2 and D3 (D2>D3>D1).

Distraction lengths of D1, D2, and D3 were 12 mm, 12 mm and 6,5 mm, in transvers direction; and 9, 9, and 10 mm in sagittal direction, respectively.

Conclusions

This study is the first report in the literature for the development of an intraoral bone born distractor to correct maxillary hypoplasia in three directions. D1 and D2 had similar final lengths of distraction, and better biomechanical properties than D3. Also, D1 can be considered as the most convenient design regarding the ease of application from the surgical point of view.

Keywords : distraction osteogenesis,maxillary deficiency,three direction

Unilateral Temporomandibular Joint Ankylosis Treated With Custom-made Fossa Prosthesis: A Case Report

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Temporomandibular joint (TMJ) ankylosis mostly arises from trauma and infections. Treatment of TMJ ankylosis might usually needs multiple surgical approaches involving multistep procedures and long treatment times. Hemi-joint replacements or fossa prostheses have been used in the treatment of various TMJ disorders providing reduced operation time and less invasive surgery. However fabrication of custom-made TMJ fossa prosthesis may generally be time consuming and expensive. We report a single-stage technique for replacement of an ankylosed joint using a custom-made prosthesis, and discuss the technical aspects of the procedure. A 27-year-old man who had no history of significant medical problems or any family history of hereditary disease referred to our clinic. He had had an accident that caused a serious trauma to his chin 3 years ago. His main complaint was limited mouth opening (17 mm) and pain in the left TMJ region during function. After preparation of a template from pattern resin on stereolithographic model, a custom-made fossa prosthesis was produced with routine casting procedures in dental laboratory. Under fiberoptic assisted nasotracheal intubation A preauricular incision with temporal extension (hockey stick incision) was used to access the TMJ. After determining the anterior and posterior limits of the ankylosed TMJ, the ankylosed mass was removed. The irregular edges of the segments were reshaped with a bur, and the ramus was completely disconnected from the upper bony block. The custom-made fossa prosthesis was fit in the fossa and fixed with screws. The gap was filled with fat graft. Maximum interincisal opening was 36 after operation. The patient was then followed up for a period of 1 year with no pain or evidence of recurrence. 85% of custom TMJ prosthesis patients experienced long-term quality of life improvement as a result of increased mandibular function and reduced chronic pain. Custom TMJ prosthesis device components are designed and manufactured for each specific case and clinical situation. Stereo lithographic models generated from computed tomography is reported to have dimensional accuracy of 97.9%. The present technique may be preferred for TMJ surgery because of it well adaptation, simple and cost-effective features.

Keywords : temporomandibular joint, tmj, prosthesis, joint replacement, ankylosis, custom-made

Clinical and Radiological Outcomes of Piezosurgery in SARME ; preliminary results

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Introduction:

The surgically assisted rapid maxillary expansion (SARME) is a form of distraction osteogenesis of the maxilla. Using combined orthodontic- forces and bone osteotomy leads to particular expansion of the midline palatal suture.

Purpose:

The purpose of this clinical study is to compare the using of piezosurgery and conventional method (oscillating saw) during the bone cut in SARME patients and to evaluate clinical & radiological outcomes of them.

Material &Method:

17 patients at the age of 18 to 25 underwent a SARME under IV sedation. The patients were randomly divided into two groups. In Group 1 (10 patients) the bone cut was performed with piezosurgery, while in Group 2 (7 patients) bone cuts were performed with oscillating saw. Intra operatively complications and operation period was detected. In the evaluation of postoperative edema facial width measurement (in mm) were done by a measuring tape clinically and by ultrasound device. The difference was calculated by the recording preoperatively on the 2nd, 5th and 7th days. The maximum mouth opening measure was obtained by measuring the maxillo-mandibular incisor distance A Pain analysis was done with visual analogue scale (VAS) during the first 7 days. Student t-test and ANOVA were used in the statistical analyses.

Results:

Maxillary expansions were obtained in all SARME patients as well. There were no permanent complication was occurred both intra operatively and post operatively. Although VAS scores of Group 1 are higher during 2nd hour and 12th hours measurement and lower at the others measurements, these differences were statistically not significant.

Trismus levels were lower in Group 1 in all measurement times. The difference between two groups was statistically significant.

Edema was almost disappeared at the end of the first week control in all patients. Group 1, edema measurements were higher in the 2nd days and lower at the other periods. However these differences were statistically insignificant in all periods

Conclusion

Based on the results of our study we conclude that piezosurgery are comparable and safe method in bone cut

Keywords : same, piezosurgery, ultrasound , edema, vas

Evaluation of the Effect of Photoionization on Dental Implant Osseointegration: Experimental study

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Objective: The term 'photoionization' means; ionization (as in the ionosphere) of a molecule or atom caused by absorption of radiant energy. This phenomenon, can be achieved by using, uv lights, electricity or radiant energy. The aim of this study is to evaluate the effect of (u.v light source) photoionization treatment on dental implant osseointegration in a new experimental animal model.

Material and Method: 10 rabbits were undergone bilateral surgical procedures of placement of specially experimental model designed dental implants (Nucleoss (Turkey/Izmir), 2.8x4mm SLA) on mandibular corpus. Before placement of dental implant in the right side of rabbit (*group 1* n=10), photoionization was applied to implant socket by using a detector (miniRAE,3000) in a period of 20 minutes. Whereas the implant in the left was placed as control (*group 2* n=10). After ten weeks, the animals were sacrificed for histomorphometric examinations. Specimens were stained with Goldner's trichrome method. Bone and osteoid formation were measured by using a software programme (AnalySIS LS Research). The total amount of new bone, bone and osteoid together (TB) and percentage of bone-implant contact and TB-implant contact to the implant surface were calculated according to the total region between the threads. The data was analyzed statistically.

Results: All implants were placed in mandibular corpus of rabbits uneventfully. The implant-to-bone contact was slightly lower in the control group (*group 2*). Percentage of new bone and TB formations were found greater in experimental group (*group 1*). However, no significant difference was found between the groups neither in percentage nor in amount of bone and TB. ($p > 0.05$).

Conclusion: Mandibular corpus of rabbit is a new experimental model for dental implant placement. Photoionization may not have any positive or harmful effect on dental implant osseointegration in low dose and 20 minutes duration. Further studies with different duration and doses of photoionization may be needed to reach certain consequences.

Keywords : implant, mandible, photoionization, bone, osseointegration

Publication Number : OP - 049

Abstract Referance : 457

SURGERY FIRST IN ORTHOGNATIC SURGERY

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Objective

The aim of this study was to assess the psychosocial and functional outcomes, satisfaction of surgery, requirement and duration of orthodontic treatment after surgery-first procedure of orthognathic surgery.

Methods

This study was carried out in 22 (52%) patients (12 female / 10 male; mean age 22 years) who had undergone surgery-first approach out of total 42 ortognathic surgery procedures for correction of dentofacial deformities in Medipol University Department of Oral and Maxillofacial Surgery in 2014 by the same surgical team. Satisfaction from surgery and requirement and duration of orthodontic treatment after surgery were assessed retrospectively. Psychosocial questionnaire were administered to 7 patient pre and postoperatively.

Results

Surgery without orthodontic treatment was performed in 6 patients (27%). Sixteen patients (73%) had ortodontic treatment following surgery. Two out of 16 (12%) patient who had orthodontic treatment quit orthodontic treatment after surgery due to satisfaction from the current occlusion. Satisfaction and motivation form the results of early performed surgery was analysed. The effects of surgery first procedures on the patients psychology was also evaluated.

Conclusion

The surgery-first approach offers an alternative to the orthodontics-first approach for correction of maxillofacial deformity. As a conclusion the surgery first procedure improves the general life quality of the patients and effective and quicker treatment method in the correction of dentofacial deformities. Both the surgeon and orthodontist should be experienced and cooperate closely to achieve predictable and satisfactory outcomes.

Keywords : surgery first approach, orthognathic surgery, psychosocial

Brown Tumors of the Jaw as Manifestation of Primary Hyperparathyroidism

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Brown tumors are non-neoplastic lesions caused by an abnormal metabolism of bone. They are characterized by a proliferation of highly vascular granulation tissue amid a matrix of multinucleated osteoclast-type giant cells. Grossly, these tumors are red or brown because of hemosiderin deposits caused by bleeding within these spaces, hence the term brown tumor. Brown tumors are caused by hyperparathyroidism, which may be primary, secondary or tertiary. These tumors can occur at any site of the skeleton and are representative of the later stages of hyperparathyroidism-dependent bone pathology. The most commonly affected areas include the ribs, clavicle, and pelvis. The involvement of the tumor in the facial bones is extremely rare with most published scientific literature reports occurrence rate of less than 5%. In this poster we are presenting two rare cases of brown tumors involving the facial bones that were diagnosed at our centres as a complication of primary hyperparathyroidism. The poster will highlight the clinical, radiological, histopathological and biochemical features and findings that have led to clinical diagnosis. In addition, the surgical and non-surgical management of the presented cases will be discussed along with the outcome of the patients.

Keywords : brown tumor, primary hyperparathyroidism, jaw.

Cancellation of fistula in case of post traumatic salivary gland injury by surgical method.Case report

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A parotid fistula is a communication between the skin and a salivary duct or gland, through which saliva is discharged. Fistulas of the parotid gland are uncommon and result from either ductal or parenchymal injury. Most frequent aetiologies of parotid fistulae are postoperative complication after parotid gland surgery and accidental trauma. Early detection of injury and prompt treatment are important since fistulas may cause discomfort as well as wound dehiscence and infection. Although there is consensus in the literature that acute parotid injury must be explored primarily and all injured structures should be repaired accurately. Treatment of chronic parotid fistulae is controversial. Numerous methods of treatment ranging from conservative to aggressive have been described with varying success and morbidity. Management options include pressure dressings and use of antisialagogue, total parotidectomy, tympanic neurectomy, intraoral transposition of parotid duct, radiation therapy, use of botulinum toxin A, and use of fibrin glue. In this paper we treated a patient of posttraumatic parotid fistula using simple but effective method of surgery.

Case report:

25 years old patient was admitted in our clinic with secretion of saliva on facial skin surface and the first clinical diagnose was post traumatic fistula formation. patient anamnesis showed that he got injured on his salivary gland region by sharp instrument 3 months before and fistula was formed 1 month before. Figure 1

Operation was done under general anesthesia. First fistula way was determine. Figure 2.

through Stensen's duct make relation with salivary gland parenchyma. For keeping this connection safe a catheter was used as bridge. Figure 3

fistula was removed and parotid capsule was sutured. Wound was sutured in layers. Atropine was given for 3 days post operation. 3 day compressing dressing on wound. After 5 days oral catheter was removed and repeated sialography didn't show any pathology of salivary gland.

Conclusion;In case of post traumatic parotid gland fistula formation,plastic surgery and therapeutic ways together is recommended to prevent secondary fistula formation and help to normalize activity of gland

Keywords : salivary gland,fistula,catheter

Confrontation of examination methods in patients with Sjogren syndrome

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Sjögren's syndrome (SS) is a chronic autoimmune disease characterized by the lymphocytic infiltration of salivary and lacrimal glands leading to xerostomia and keratoconjunctivitis sicca (KCS). The prevalence of SS is variable but recent studies have estimated it to be between

0.1-0.6%. As such, SS occurs in middle-aged patients with a high female predominance of 9 to 1. SS is classified either as primary (pSS) when occurring alone or secondary (sSS) to other autoimmune diseases such as rheumatoid arthritis or systemic lupus erythematosus. There are actually no

specific diagnostic criteria for SS, but for clinical studies and teaching purposes, SS is classified according to the American-European classification criteria, which include subjective and objective criteria of xerostomia and KCS as well as the presence of autoimmune antibodies and

histopathological salivary gland involvement. Because of the lack of a "gold standard" for SS, the standard of reference being actually used is clinical diagnosis made by an experienced clinician. The importance of making the diagnosis of pSS is cardinal because of the increased risk of developing lymphoma and serious systemic complications. In an endeavor to increase the likelihood of diagnosis of SS, newer diagnostic tools have been devised such as ultrasound sonography of salivary glands, magnetic resonance imaging of parotid glands as well as epigenetic biomarkers.

Aim of our research is comparing of different examination methods which is helpful for correct diagnosis of Sjögren syndrome.

According to AEC principles 12 patients were diagnosed by Sjögren disease. Lower lip minor salivary gland biopsy was taken and Histopathology analysis were done in all 10 cases. (1) Sialography was done in 6 patients, (2) 4 patients CT Scan (3), 2 patients MRI. Blood analysis was done in all cases. Sialography result didn't show difference between chronic paranchymatos sialodentitis and sialosis. The cystic cavities which appear in CT were same with other salivary gland dystrophic disease. Also CT

scan result didn't help to make differ between Sjögren and Sarcoidosis Disease. Beside these examination methods, lower lip biopsy help for correct diagnose of Sögren syndrome .

Conclusion: The most recommended examination method for correct diagnose in case of Soqren syndrome is lower lip minor salivary gland biopsy.

Keywords : salivary gland, byopsi, sialography

Agressive Central Granuloma Asssociated with Mandibular Third Molar: A Case Report With 12 Months Follow-Up

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Objective

To report the conservative surgical excision and follow-up of a mandibular aggressive central giant cell granuloma.

Methods

Twenty-one years old female patient was referred to our clinic with a complaint of dull pain on her left jaw. Radiographic examination revealed lytic lesion which is extending to the ascending ramus and associated with left third molar tooth. Surgical excision of the lesion was performed under local anesthesia with extraction of associated tooth.

Results

Microscopical examination revealed giant cells and numerous mononuclear cells dispersed in a vascular connective tissue stroma. Patient was undertaken follow-up period with 6-months intervals. Solid bone regeneration was observed in the lesional area in the radiographic examination at 12th month follow-up control.

Conclusions

Central giant cell granuloma is mostly localized in premolar-molar region of the mandible. Third molar involvement of the lesion is rare. The treatment of central giant cell granuloma includes surgical excision and curettage, calcitonin therapy and steroid therapy. Surgical excision was the preferred tretment method in this study.

Keywords : giant cell granuloma ; curettage ; third molar

Maxillary Myxoma : A case report

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INTRODUCTION: Myxomas are rarely seen, slowly growing and benign neoplasms. These neoplasms frequently occur in myocardium but when they appear in osseous sites, they are usually found in mandible and maxilla. Odontogenic myxoma commonly occurs in the second and third decade, and the mandible is involved more commonly than the maxilla. The lesion often grows without symptoms and presents as a painless swelling. Radiologically their appearance may vary from an unicystic unilocular radiolucency to a large multicystic expansive lesion. Treatment options may differ from enucleation to radical resection. **RESULT** In this poster presentation, a unilocular maxillary myxoma case which was noticed coincidentally in a panoramic radiograph was presented.

Keywords : myxoma, maxilla, child

Application of ozne therapy in treatment of noma: a case report

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Introduction: Cancrum oris (noma) is a devastating moist gangrene of the oral cavity and para-oral region, which is usually destroying both hard and soft tissues. Noma usually might found in pediatric population with a mean age of 2-16 with no sex predilection. It has specific epidemiology in the region of sub-Saharan Africa and main predisposing factors are poor oral and personal hygiene, starvation, infection diseases and poor overall health condition. The bacteriology of noma is still unclear, however it is believed that *Fusobacterium necrophorum* and *Prevotella intermedia* are thought to be key players in the process and interact with one or more other bacterial organisms (such as *Borrelia vincentii*, *Porphyromonas gingivalis*, *Tannerella forsythia*, *Treponema denticola*, *Staphylococcus aureus*, and nonhemolytic *Streptococcus* spp). The therapy of noma usually includes wide spectrum systemic antibiotic therapy with further soft and hard tissues reconstruction of affected sites. This case is demonstrating effect of combination of routine antibiotic and ozone therapy.

Case report: 4 y.o. male was admitted to our hospital with symptoms of moist necrosis of upper lip R-side, right nasal ala, and anterior portions of buccal region. Upon clinical and lab findings noma diagnosis was established. A systemic antibacterial therapy was started immediately and includes combination of: **Ceftazidime (3rd generation cephalosporine)**, Amikacinum and Vancomycinum. Additionally the local application of ozone containing sodium saline 0,9% and UV therapy were used. 3 weeks later self-limitation of the process was noted and patient referred to plastic surgeon for the further lip and nose reconstruction.

Conclusion: this particular clinical case is showing effect of routine antibiotic therapy with combination of local application of ozone and UV therapy. We believe that this combination might significantly reduce devastating effect of noma and increase rehabilitation rates of the patient.

Keywords : ozone and ultraviolet therapy ,noma,

Prosthetic complications in tooth-implant supported fixed prostheses: a case report

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Dental implants are an appropriate option for patients who have lost a tooth or teeth due to periodontal disease, an injury or dental caries. However, implants are expensive. Fixed-type prostheses usually require more implants for support. It increases the cost of treatment. Therefore, combination of an implant with a natural tooth might be used as abutments in some fixed restoration cases. This opinion is still a contradiction among the dentists. Some of them are agree of connecting implant to natural tooth, but the others are still disagree. Because the structures of implants and natural teeth are different, the prosthetic design should be planned, carefully. The purpose of this study was to evaluate the prosthetic complications of the tooth-implant supported fixed prostheses.

Keywords : dental implant, fixed prostheses, tooth-implant connection

Publication Number : PP - 008

Abstract Reference : 32

Eosinophilic Granuloma of the Mandible

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Eosinophilic granuloma (EG) is the benign and localized form of “Langerhans cell histiocytosis” diseases (LCH). LCH is characterized by a clonal proliferation of pathologic cells with the characteristics of Langerhans cells in single or multiple organs.

The localized form of LCH occurs in older children, adolescents and young adults.

EG is a destructive osseous lesion characterized by presence of a vast number of eosinophils and histiocytes. The prognosis for this form of the disorder is fine.

We present a case of a 16 years old male who before diagnosed as EG because of the lesions on his pelvic bone. The radiolucent lesion associated with impacted 38 region was detected during the patients routine dental examination. However there was radiolucent, non-sclerotic bordered lesion related with 38 region in orthopantomograph, there was no clinical signs or symptoms. Treatment of the lesion was surgical curettage with removal of impacted tooth. Definitive diagnosis was EG after the histopathologic analysis. Postoperative period was uneventful.

Keywords: eosinophilic granuloma, langerhans cell histiocytosis, treatment, mandible, impacted tooth

Open Reduction with a Microplate for Bilateral Condylar Fracture

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Condylar fractures account for 25-35 % of mandibular fractures and deserve a special consideration apart from rest of the mandible due to their anatomical differences and healing potential.

Condylar fractures can be extracapsular (condylar neck or subcondylar) or intracapsular, undisplaced, deviated, displaced or dislocated. Accident with motor vehicles and fall are the major causes of such fractures. Because of the anatomical weakness of the condyle and the shape of the condylar head, the antero-medial dislocation of the condyle is common.

Treatment method depends on age, other fractures, whether the condylar fracture is unilateral or bilateral, the level and displacement of the fracture, the state of dentition and the dental occlusion, and the surgeon's experience.

The open reduction will bring back the normal function much earlier than closed reduction. Open reduction aims at anatomical repositioning and rigid fixation of the fragments by a direct approach which provide occlusal stability, rapid return to function, maintenance of vertical ramus dimension, no airway compromise and less temporomandibular joint dysfunction.

Previous clinical and biomechanical studies have recommended using two or delta shaped miniplates for fixation of condyle fractures. Two miniplates require a certain size of the proximal condyle fragment, and thus are applicable mainly in cases involving low fractures. The aim of this article is to present the clinical use of only one miniplate which was located to posterior border of the condyle.

Keywords : bilateral condylar fracture, open reduction, treatment, miniplate

Platelet-Rich Fibrin in the Treatment of Bisphosphonate-Related Osteonecrosis of the Jaws

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Bisphosphonate-related osteonecrosis of the jaw (BRONJ) is a common complication resulting from the bisphosphonate treatment nowadays. BRONJ manifests as exposed, nonvital bone affecting the maxilla and/or mandible. BRONJ is thought to be caused by trauma to dentoalveolar structures such as tooth extraction that have a limited capacity for bone healing due to the effects of bisphosphonate therapy. This case series present treatment and closure of bone exposure with PRF and PRF membrane together. After surgical removal of necrotic bone, covering the operated bone with PRF contribute uneventful healing in BRONJ.

Keywords : bisphosphonate-related osteonecrosis, platelet rich fibrin, surgical treatment

A Rare Developmental Disorder: Ghost Teeth, With Computed Tomography Evaluation

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Objective

Regional odontodysplasia (RO) is an uncommon developmental disorder in tooth formation. This nonhereditary dental anomaly affects both primary and permanent dentitions in the maxilla or/and mandible. In this disorder, both epithelial and mesenchymal dental tissues are affected. Clinically, affected teeth have abnormal morphology and soft construction. They are typically discolored and there may be dental abscess formation and swelling in nearby gum. Enamel and dentin are thin and hypocalcified and the roots are short with wide open apices. In radiography, the delineation between enamel and dentin is not clear and pulp chambers are exceedingly large. Also there is significant reduction in radiodensity because of hypoplastic and hypocalcified enamel and dentin. So the affected teeth appear as 'ghost teeth' in radiography. Using computed tomography(CT), density of affected enamel and dentin can be measured and compared with other sound teeth' s. Analysis of CT values may be useful in the diagnosis of RO. The treatment of 'ghost teeth' is controversial. While some clinicians prefer extracting the affected teeth and prosthetic rehabilitation, other clinicians prefer restorative procedures.

Methods

This paper reports the case of a 14-year-old girl presenting this rare anomaly on the both sides of maxilla. She was referred to our department with preliminary diagnosis of 'cystic lesion'. According to panoramic and CT images, there were tooth-like structures. The affected teeth were both two maxillary permanent second premolars and CT values for enamel and dentin were different. While one of ghost teeth was erupted, the other affected tooth was impacted and surrounded by a cyst like lesion.

Results

Both affected teeth were extracted and the cystic lesion was enucleated in local anesthesia. The patient was referred for orthodontic treatment. There is no recurrence after 1 year follow up.

Conclusions

RO is a rare dental anomaly and has a characteristic radiographic appearance. To define the diagnosis, CT can be useful. When saving affected tooth with restorative procedures is impossible, extracting the affected tooth and curettage cystic lesion comprises treatment plan.

Keywords : ghost teeth, regional odontodysplasia, odontodysplasia

Undesirable Condition : Apical Resection Procedure For The Patient With Idiopathic Thrombocytopenic Purpura

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Objectives

Idiopathic thrombocytopenic purpura (ITP) is a hematologic disorder, characterized by isolated thrombocytopenia with no clinically apparent associated conditions or other causes of thrombocytopenia. The major causes of ITP are auto-immune thrombocytopenia, decreased bone marrow function and increased reticulum-endothelial system function. Clinically, ITP presents with mucocutaneous lesions such as petechiae and ecchymosis, haematomas, prolonged bleeding after injury, spontaneous gingival and periodontal hemorrhage and haemorrhage into tissues.

Methods

In this case report, an unexpected complication after an apical resection procedure to the patient with ITP is presented. 68-year-old male patient was admitted to our department for his right maxillar lateral tooth. After receiving the patient's medical history in detail, an apical resection procedure was planned. Then the operation was performed without any problem.

Results

The next day the patient came back to department with terrible clinical view. Severe swelling and hematoma, pain and hemorrhage from flap were observed. The patient hadn't informed us about his ITP history. Then he admitted it at that time. The patient was consulted to Hematology Department. His platelet count was nearly 20.000 cells per microliter of blood, so he was hospitalized and treated as soon as possible. Recovery after the treatment was rapid and satisfactory.

Conclusions

Hemorrhagic diathesis such as ITP is a high risk for oral surgery especially when platelet count is above 150.000 cells per microliter of blood. In the patients with ITP, careful medical anamnesis and consulting patient to Hematology Department for haematological tests and platelet transfusion is very important before oral surgical procedures.

Keywords : thrombocytopenia, idiopathic thrombocytopenic purpura, inadequate medical anamnesis

Pyogenic Granuloma In Pregnancy: A Case Report

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OBJECTIVE

Pyogenic granuloma is a benign, tumour-like, hyperplastic inflammatory lesion arises in response to local irritation, trauma or hormonal factors. It predominantly occurs in the second decade of life in young females and pregnant, possibly because of the vascular effects of the female steroid hormones. Pyogenic granuloma is seen with the ratio of %5 of pregnant women in 2nd and 3rd trimesters. The lesion is prone to bleeding and may cause spontaneous hemorrhagies, speech and chewing difficulty. Surgical excision may consider if these type of problems occur in pregnancy.

CASE

A case of a 28 year-old pregnant woman (20 weeks gestation) who presented with a pregnancy associated pyogenic granuloma of the maxillary right posterior teeth is reported.

CONCLUSION

Surgical excision was the treatment of choice, and no recurrence was noted.

Keywords : pyogenic granuloma, pregnancy, benign neoplasm, hyperplastic lesion.

Benign Paroxysmal Positional Vertigo After Indirect Sinus Lifting: A Retrospective Analysis

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Introduction: One of the complications related with the closed sinus lifting procedure is the osteotomy related benign paroxysmal positional vertigo (BPPV). The aim of this retrospective study is to inform the patients and the surgeons about vertigo seen after indirect sinus lifting procedures with osteotomes and assess its ratio and relation with age, gender, residual alveolar bone height (RAB) and cortical thickness of sinus floor.

Patients & Methods: In the study, there were 138 healthy patients of 79 women and 59 men with the average ages of 47.2 (range 35 – 68). The age, gender, preoperative residual alveolar bone (RAB) length and cortical thickness of sinus floor from cone beam computerized tomography (CBCT) were recorded from case history.

Results: Totally 4 out of 138 patients (2.89%) showed a BPPV of the posterior semicircular canal omo-lateral to the operation side. Duration of vertigo was 6 weeks in the first BPPV patient. In the other patients, the durations were 1 week, 5 days and 2 weeks, respectively. BPPV patients were promptly diagnosed with Dix-Hallpike test and treated with the Epley re-positioning maneuver by the otolaryngologist. For RAB datas, if a patient has a criterion value which is lower than 5.9, BPPV can be seen 2.48 times more than a patient that has a criterion value higher than 5.9. For cortical thickness datas, if a patient has a criterion value higher than 0.8, BPPV can be seen 4.54 times more than a patient which has a criterion value lower than 0.8.

Conclusion: Based on our experience, although BPPV has been considered to be a rare complication following closed sinus lift procedure, it is highly disruptive to patients if not diagnosed correctly and treated properly. We suggest that especially the patients who have cortical thickness values more than 0.8 mm should be informed before undergoing surgery and referred to otolaryngologists after a patient faces with any neurovegetative symptom associated with vertigo.

Keywords : benign paroxysmal positional vertigo, maxillary sinus, osteotomy, schneiderian membrane

Reduction of zygomatic complex fracture using combination of microplate and miniplate osteosynthesis: A case report

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Objective: Zygomaticomaxillary complex (ZMC) fracture is the second most common facial bone fractures after nasal bone and has been extensively described in the literature. The goal of treatment as with ZMC fracture is to restore both the functions and pre-injury 3-dimensional facial contours.

Methods: Numerous techniques have been described for the reduction of ZMC fracture. This case report presents a 21-year-old man who was involved in a traffic accident and who subsequently presented with a ZMC fracture. The patient was treated through an open reduction and internal fixation procedure using a titanium microplate and miniplate combination.

Results: Postoperative recovery was uneventful and the patient was discharged well on the fifth post-operative day. No hematoma, wound infections or other complications were observed. The 3-dimensional reconstruction was also accomplished.

Conclusions: This study using microplate and miniplate combination has given us promising result, hence may be considered as a valid tool in the ZMC fracture.

Keywords : zygomaticomaxillary complex fracture; microplate; miniplate

Alveolar Ridge Augmentation of Large Bony Defects with Titanium Mesh and PRF: Presentation of Four Patients

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4 partial edentulous patients with large bony defects were referred to our department for dental implant rehabilitation. One patient had anterior maxillary defect while 3 patient had anterior mandibular defects. All patients were grafted with BIOS graft. In 2 patients titanium mesh and PRF membranes were used to create a tent over grafted site. Other 2 patients were treated by Titanium-Reinforced High-Density PTFE Membrane. 3 months following procedure Meshes were removed and implants were located. 3 months following 2nd surgery implants were loaded with dental crowns. In one patient PTFE membrane was purposely left exposed for preservation of soft tissue architecture. No implant failure or surgical site infection occurred.

Keywords : dental implant, titanium mesh, ptfe, graft, prf, bios.

Comparison Of The Effects Of Low-Level Laser Therapy And Ozone Therapy On Bone Healing

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OBJECTIVE: This study aims to compare the effect of low-level laser therapy (LLLT) and ozone therapy on the bone healing.

METHODS: Thirty six adult male Wistar albino rats were used for this study. Monocortical defects were shaped in right femur of all rats. Defects were filled with nano-hydroxyapatite graft. The animals were divided into three groups and each group was than divided into two sub-groups. Then, LLLT with diode laser was applied to the first group (G1), ozone therapy was applied to the second group (G2) and no treatment was applied to third group as a control group (G3). Animals were sacrificed after 4th and 8th week and the sections were examined to evaluate the density of the inflammation, the formation of connective tissue, the osteogenic potential and osteocalcin activity.

RESULTS: As a result, there were not significant differences among the groups of four weeks in terms of new bone formation. In the immunohistochemical assessment, the number of osteocalcin-positive cells was higher in the laser group compared to the other group of four weeks, this difference was statistically significant in LLLT and ozone group ($p < 0.05$). Histomorphometric assessment showed that the new bone areas were higher in the LLLT and ozone group furthermore there was statistically significant difference in the LLLT in comparison with the control group at 8th week ($p < 0.05$). At the same time immunohistochemical assessment showed that osteocalcin positive cells were considerably higher in G2 than G1 at 8th week ($p < 0.05$). The findings of this study may be the result of differences in the number of treatment sessions.

CONCLUSIONS: Further studies are therefore needed to determine the optimal treatment modality.

Keywords : low-level laser therapy , ozone , graft, bone healing

The Investigation Of The Activity Of Polylactic Acid And Synthetic Graft Material On Guided Bone Regeneration

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OBJECTIVE: In guided bone regeneration barrier membranes are used in order to prevent epithelial collapse and growth of connective tissue to new bone area. At the same time osteogenesis is supported. Blood build up by decortication holes under vacuums constituted is an important factor for bone regeneration. Although clinicians are able to enable bone shaping by using titanium barriers, they need additional materials in order to increase the volume of the bone formation. We aimed to evaluate the effectiveness of polylactic-co-glycolic acid on new bone formation.

METHODS: In the research, twelve adult male New Zeland rabbits were used. The rabbits were divided in three groups; one for control the other two for research, with 8 rabbits in each group. 5 decortication holes were made bilaterally into calvarial bone of rabbits and a total of 24 barriers were placed bilaterally. In the 1st group synthetic graft material was placed into the titanium barrier. In the 2nd group polylactic-co-glycolic acid (PLGA) was placed into titanium barrier. In 3th group (control group) no material was placed inside the titanium barrier. All rabbits were sacrificed with high dose of anesthetic injection at the day 90th. The amount of newly generated tissue and mineralized bone under titanium cap was determined.

RESULTS: When the samples were histomorphometrically analyzed; Defective areas were covered with various grades by connective and bone tissue in all groups. The highest percentage of bone tissue occurred in 3th group followed by the 1st right and 2nd groups.

CONCLUSIONS: In this study, we found that there wasn't any effectiveness of polylactic-co-glycolic acid on bone healing. However further investigations are needed.

Keywords : guided bone regeneration ,titanium barrier, graft, polylactic-co-glycolic acid

Sublingual Sialolithiasis Removal With Er;Cr:YSGG Laser: Report of A Case

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Introduction: Sialolithiasis is calcified structure formation system formed within the salivary glands or ducts. The main clinical manifestations are swelling and pain typically before, during or after meals that decreases if the obstruction is not complete. In treatment options many techniques can be used but the majority comprises the surgical procedures. This report presents a Er;Cr:YSGG laser surgery for removal of sublingual sialolithiasis.

Case: A 75 years old male patient complaint to pain and rigid mass in the sublingual region. In clinical and radiological examination, salivary gland stone was detected in the mouth of the channel on the left sublingual gland. The patient had severe pain during palpation. Stone totally excised with Er;Cr:YSGG laser incision (WaterLase iPlus™; USA BiolaseR Technology Inc., Irvine, CA, USA) was used with the following modulations: wavelength, 2780 nm; power, 2.75 W; frequency, 75 Hz; and an air/water proportion). The stone was in 1,5cm×5mm size. The postoperative course and the regaining of functionality of gland is normal.

Discussion: Salivary gland stone treatment varies according to the localization of salivary glands. Small and close to the drain channel stones may be out manually manipulated. Generally the surgical treatment needs to make an incision to excise the stone located away from the drain channel. Treatment options range from a single probing extraction, extraction with sialographic control using the sialoendoscope, LASER intraductal lithotripsy, lithotripsy extracorporeal shock wave (ESWL), to the surgical techniques combining open duct with endoscopic or glandular removal. In this case we used to Er,Cr:YSGG laser for the incision on the soft tissue for total excision. Er,Cr:YSGG laser surgery is quite suitable and adequate method for sialolithiasis removal treatment.

Keywords : sialolithiasis, er;cr:ysgg laser, salivary gland stone

Implant-Supported Oral Rehabilitation of a Patient with Systemic Sclerosis

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Systemic sclerosis is a systemic disorder of the connective tissue affecting blood vessels, skin and various organs. Oral manifestations of systemic sclerosis are trigeminal neuropathy, xerostomia, thickened periodontal ligament, sclerotic changes in tongue, microstomia, idiopathic resorptions of teeth and jawbone and inadequate oral hygiene. Pilocarpine and/or artificial saliva treatment for xerostomia; oral hygiene education, periodontal treatment, antibiotics and tranexamic acid as a mouthwashes for periodontal disease; conservative dentistry and dental prophylaxis with fluoride treatment for caries; elongation exercises for microstomia; pulsed CO₂ laser for perioral "whistle" lines; simple follow up for mandibular bone resorption; partial, complete removable dentures, dental implants for edentation can be recommended. We present a case of 39 years old female with systemic sclerosis treated with implant supported prosthesis.

Keywords : systemic sclerosis, dental implant, implant-supported dental prosthesis

MANDIBULAR OSTEOMA: CASE REPORT

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Osteomas, are benign, slow growing osteogenic tumors. Although etiology and pathogenesis of osteoma is not known uncertainly, is thought to be a true neoplazm, developmental abnormalities, or developing a reactive tissue growtht or esults of trauma.It is usually non-progressive over the time and it may appear in compactor spongeous bone structure that is endosteal or periosteal. Due to their slow growth, osteomas of the maxillofacial bones remain asymptomatic until they attain sufficient sizes as to cause disfigurement and interference with normal function of their anatomic location. Mandibular osteomas are relatively frequent than maxillary osteomas. Intraoral cases ocur frequently in the lingual molar-premolar area of the mandible. We present a case of osteoma of edentulous posterior mandible in a female patient.

Keywords : osteoma

Reparative Giant Cell Granuloma: Two Case Reports

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OBJECTIVE

Reparative giant cell granulomas are benign, infrequent tumors of non-odontogenic origin, that develop at central or peripheral level. Peripheral giant cell reparative granuloma is a reactive and rare lesion of oral cavity with unknown etiology which is derived from periosteum and periodontal ligament and occurs frequently in young adults. Although the etiology remains unclear, the peripheral lesions are often denominated 'giant cell epulis' and correspond to secondary inflammatory reactions to another type of aggression (local trauma, hemorrhage, chronic irritants, etc.) Histologically, the three lesions are characterized by the presence of abundant giant multinucleated cells.

CASE REPORTS

Case I. A 13-year-old boy patient was referred to our clinic for painless swelling lesion. He had this lesion for 2.5 months in left mandibula premolar approximately 1.5x1 cm in size. Clinical examination showed asymptomatic, a well-defined nodular mass of firm consistency. Excisional biopsy performed under local anesthesia of the lesion and histopathological examination revealed.

Case II. A 10-year-old boy patient was referred to our clinic for painless swelling lesion. He had it for 7 months in the left anterior maxilla approximately 2.2x1.3 cm in size. Clinical examination showed hemorrhagic, a well-defined nodular mass of firm consistency. Excisional biopsy performed under local anesthesia of the lesion and histopathological examination revealed.

RESULTS

The results of histopathological examination the diagnosis confirmed as reparative giant cell granuloma for both cases. The surgical excision margins were all safety clear of tumors. The patients are now free from tumors and are followed up carefully.

CONCLUSIONS

The recurrence rate is reported to be 13–22% with mostly manifesting within first 2 years postoperatively. In our cases the patients were recalled and clinical controls were performed at six months.. Generally, curettage of well-defined localised lesions is associated with a low rate of recurrence but in extensive lesions with evidence of perforation of cortex, more radical excision is mandatory, which may lead to loss of teeth. In recent years, medical treatment including intralesional corticosteroid injection

or calcitonin injection has been advocated in addition to surgery. Clinicians should be follow carefully for recurrence in this cases.

Keywords : reparative, giant cell, granuloma

Biostimulatory effect of diode laser and ozone on wound healing in rats

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Aim: To evaluate the biostimulatory effect of diode laser and ozone on healing of sutured skin wounds in rats.

Methods: In this study were used twenty one adult male Wistar albino rats. One centimeter-long, full-thickness, three incisions were applied to the backs of the animals. Three incisions on each rat were closed with sutured. Then, diode laser was applied to the first wound every day (Laser Group). Second wound was irrigated with 0.9% saline solution (Control Group). Ozone therapy was applied to the third wound (Ozone Group). Animals were euthanized at the 3th, 7th and 14th days after treatment, and all wounds were removed surgically to evaluate the acute and chronic inflammatory reaction, granulation tissue and fibrosis, histopathologically. All data were compared statistically using Kruskal Wallis and Mann Whitney U test, $p < 0.05$.

Results: According to histological (hematoxylin-eosin staining) results, chronic inflammatory reaction, granulation tissue and fibrosis, through 14 days of healing period showed similarities among three treatment methods. However, statistically significant difference was found among three treatment methods in acute inflammatory reaction ($p < 0.05$). Ozone treatment reduced intensity of acute inflammatory reaction only for 3th days ($p < 0.05$). In addition, statistically significant difference was found between follow-up periods all treatment groups for fibrosis ($p < 0.01$).

Conclusion: The effect of diode laser and ozone on healing of sutured skin wounds was found similar in rats. However, ozone treatment was more effective a treatment when compared other treatment for reduce intensity of acute inflammatory reaction.

Keywords : wound healing, diode laser, ozone

Continuity of the mandibular incisive canal

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The knowledge on location of incisive canal is crucial in clinical dentistry and surgical procedures in the antero-lateral aspect of the body of the mandible. Cone-beam computed tomography is more reliable and accurate 3-dimensional visualization of anatomical structures than traditional radiographic imaging.

In this study 100 CBCT images of mandibular incisive canal were evaluated retrospectively. Continuity of the mandibular incisive canal was observed %99 in patients. The continuity of the incisive canal was minimum 1, maximum 39mm, medium 4. There was no significant difference between the left and the right incisive canal continuity.

The knowledge bilateral symmetry of the incisive canal is important for dental surgeons on planning of operation.

Keywords : mandibular incisive canal, cone-beam computed tomography

Peripheral Giant Cell Granuloma in Edentulous Maxilla

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Objective: In this report, we presented a 73-year-old male patient with a mass on the maxillary premolar region, occurred after tooth extraction.

Method: The lesion was totally excised and peripheral ostectomy was performed. The large bone defect occurred after the lesion was removed and it was covered by a plaque.

Result: There was no complication in the postoperative 7 months follow-up period. Both bone and mucosal healing was perfect.

Conclusion: It is considered to be useful these plaques to protect wide surgical areas. Especially, in intraoral region removal of the large lesion leads to wide exposed bone surface. In these cases, using of such plaques has positive effects on postoperative healing period.

Keywords : peripheral giant cell granuloma, plaque, edentulous maxilla

Management of a Patient with Bilateral Coronoid Hyperplasia

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Management of a patient with bilateral coronoid hyperplasia

Objective: : In this case report a 19 year-old female patient suffering from limitation of mouth opening due to coronoid hyperplasia and her treatment with bilateral coronoidectomy and physiotherapy was presented.

Material and Method: The patient was operated under local anaesthesia due to necessity of tracheostomy for general anaesthesia. Coronoid processes were osteotomized bilaterally. Pre and post-op maximum mouth opening (MMO) values were calculated. Physiotherapy exercises were recommended after operation and patient was followed for 16 months.

Results: At the end of the operation healing was uneventful and MMO was 34 mm. This MMO value of 34 mm is still preserved after 16 months of the operation.

Conclusion: In cases of limitation of mouth opening, coronoid hyperplasia must be considered as a possible cause like the other factors such as infection, temporomandibular joint internal derangements and muscular spasms.

Keywords : coronoid hyperplasia, trismus, coronoid process, coronoidectomy

PERIPHERAL OSSIFYING FIBROMA: TWO CASE REPORTS

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Peripheral ossifying fibroma(POF) is a relatively common, non-neoplastic gingival growth that is classified as a reactive hyperplastic inflammatory lesion. The clinical appearance of POF is generally a small well-circumscribed and it can be sessile or pedicled. POF is seen more frequently in the maxilla and most of the cases occur in the incisor-canine area. It has a high proportion recurrence rate. Surgical approach is the most common choice in treatment options. In this report, two POF cases in two young adult patients with their surgical management and prognosis will be discussed.

Keywords : periferal ossifying fibrom

Repeated Arthrocentesis of Temporomandibular Joint

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Aim: The aim of this study was to assess the efficiency of repeated arthrocentesis on reducing clicking sound and pain of patients presenting temporomandibular joint (TMJ) internal derangements.

Material and Methods: 15 patients presenting TMJ dysfunction at stage Wilkes I-II-III and symptom free of osteoarthritis was evaluated retrospectively. Arthrocentesis and hyaluronic acid (HA) injections were performed days 1 and 15. On day 5. And 19. HA injections were performed without arthrocentesis. Patients were evaluated retrospectively with respect to the data recorded as pain, clicking sound and maximum interincisal opening preoperatively and post-op 1., 6, 12 and 24 months.

Results: Statistically significant reduction of pain and clicking sound was observed in all patients.

Conclusion: We suggest that repeated arthrocentesis with HA is an effective treatment modality on early stages of TMJ internal derangements.

Keywords : arthrocentesis, tmj, clicking

The biological complication related to closure screw of single-molar implant: a case report

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Objective: For submerged healing, the closure screws are particularly recommended in dental implant procedures. However biologic complications after the placement of dental implants occur continuously over time as a result of fatigue and stress. This case report describes a biologic complication related to single-tooth implant closure screw in crestal mucosa. **Methods:** A 38-year-old male was referred to our clinic for dental implant placement to restore the missing mandibular first molar. Surgery was performed under local anesthesia and 4.0x11.5 mm osseointegrated implant were placed in missing first molar area. 4 weeks after surgery, the patient returned with complaining of swelling and pain on crestal mucosa of implant side. The closure screw loosening was occurred on the panoramic radiograph. A crestal incision was made over the implant side, screw was removed and intraoral drainage was performed. After this procedure, closure screw was placed and incision was sutured. **Results:** After the healing and osseointegration period of 2 months, implant retained single crown was finished. **Conclusions:** Screw complications may not lead to implant failures, but they are significant in relation to the amount of repair and maintenance needed, time, and cost to both the clinician and patient in private practice.

Keywords : dental implant, biologic complications, screw failure

Surgical approach for a large maxillary radicular cyst: a case report

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Objective: Radicular cysts are the most common odontogenic cystic lesions of inflammatory origin. It can become quite large because of its ability for significant expansion, extension into adjacent tissues and rapid growth and also has high recurrence rate. They are generally symptomless and are diagnosed during routine radiologic investigations. The aim of this case presentation was to evaluate the use of enucleation in the management of large radicular cyst of the maxilla. **Methods:** A 34-year-old male patient presented with swelling and pain, involving the left anterior area of the maxilla. The original radiographic cone-beam dental tomography image suggested the presence of an odontogenic cyst at the size of 20 × 15 mm. Based on a clinical diagnosis of radicular cyst, an excisional biopsy was performed, the lesion was totally enucleated under local anesthesia. **Results:** The histological analysis confirmed that the lesion was a radicular cyst with no evidence of epithelial invasion in the connective tissue wall. The patient was followed up clinically and radiographically at six months. **Conclusions:** The treatment of radicular cysts includes conventional nonsurgical root canal therapy when lesion is localized or surgical treatment like enucleation, marsupialization or decompression when lesion is large.

Keywords : radicular cyst, odontogenic lesion

Focal Cemento-Osseous Dysplasia due to Excessive Orthodontic Forces

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Focal cemento-osseous dysplasia (FCOD) is a member of a group of jaw disorders characterized by the replacement of bone by a benign connective tissue matrix called as fibro-osseous lesions (FOLs). FCOD in the tooth bearing areas of the jaws is an asymptomatic benign condition, belonging to the spectrum of fibro-osseous lesions. FCOD and periapical cemento-osseous dysplasia are different names for the same pathological process. The ethiology and pathogenesis of FCOD are unknown and this lesion is considered to be a reactive or a dysplastic process in the periapical tissues. Usually it affects two or more mandibular anterior teeth, and the radiographic appearance varies depending on the state of development. The lesion is detected only on radiographical examination. The radiographical features are variable, comprising a combination of radiolucent and radiopaque patterns. The lesion varies from completely radiolucent to densely radiopaque. In rare cases, the lesion may affect only one tooth, and thus mimic an apical granuloma or a cyst.

We present a case of 15 year-old male patient who was referred by his orthodontist for evaluation of the swelling on his chin occurred after the orthodontic treatment. Radiographical examination revealed a well circumscribed partly radiolucent lesion mimicking a periapical lesion localized in the right anterior side of the mandible. Clinical examination revealed a slight buccal swelling in the vestibular sulcus area without any pain and/or parasthesia. The lesion was totally enucleated and histopathological examination confirmed that the lesion is FCOD.

Keywords : focal cemento-osseous dysplasia, fibrous dysplasia

CAN LARGE ODONTOGENIC CYSTS BE TREATED UNDER LOCAL ANESTHESIA WITH CONSERVATIVE SURGERY?

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Objective: This case series aimed to determine the bony healing of extensive odontogenic cysts after conservative surgery under local anesthesia, without using bone filling materials.

Methods: Patients who were referred to Ege University School of Dentistry, Department of Oral and Maxillofacial Surgery for surgical treatment of wide cystic lesions of the jaws and who refused surgical operation under general anesthesia were enrolled. After having biopsies, patients were treated by using conventional surgical methods under local anesthesia, without bone resection and using bone filling materials. All patients were examined clinically and radiologically for 6 to 24 months.

Results: Patients showed no post-operative complications and considerable or complete bone healing was observed in recall examinations.

Conclusions: Even though conservative surgery may not be appropriate for all patients, conservative surgical method may be practiced under local anesthesia without performing jaw resections for extensive cystic lesions.

Keywords : mandible, maxilla, odontogenic cysts

The Comparison of Clinical Successes of Antibiotic Therapy and Laser Applications in Pericoronitis Treatment

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Introduction: Pericoronitis is an inflammation seen around the impacted or semi-erupted teeth, in hard and soft tissue caused Gram-negative bacteria. Antibiotics and several types of lasers are used for pericoronitis treatment.

Material-Method: Totally 36 patients were included in the survey. All patients VAS (Visual Analog Scale) scores and presence of LAP (Lymphadenopathy) were measured. There were three groups in the study (antibiotic, Er,Cr;YSGG laser and diode laser). Antibiotic (1g amoxicillin 2 times a day) prescribed and call them when LAP became asymptomatic. Er,Cr;YSGG Laser (Er,Cr:YSGG laser 2780 nm, Closed Pocket Therapy 1.5 W, 30 H, H mode, 20 water, 11 air, MZ5 tip) applied and then call them again. Diode laser application (940 nm, 0.10 pulse length, 0,10 interval, 1,5 W) 3 times 7 seconds in pocket. VAS and LAP values were noted and compared in all groups. When LAP became asymptomatic, the teeth were extracted in all groups.

Result: Diode laser and Er,Cr;YSGG laser groups mean of 4. day and antibiotic group mean of 2. day LAP became asymptomatic. Mean of the day VAS score resetting were 4. day in diode laser, 3. day in Er,Cr;YSGG laser and 2,5. day in antibiotic group. There is statistically significant difference in 3. and 4. day LAP score ($p=0.048$ and $p=0.013$, $p<0.05$) and 6. day VAS score ($p=0.048$, $p<0.05$) in the antibiotic group. Er,Cr;YSGG laser found better but it's not statistically significant different between diode laser.

Conclusion: In this study antibiotics was found to be significantly more effective in treatment of pericoronitis then laser treatment groups. Diode laser application didn't diminish the symptoms of LAP. Laser application provided dysinfection in localized pockets. Although antibiotics resolve the LAP symptoms earlier than lasers we thought that Er,Cr:YSGG laser treatment is more practical, safe and economical way than the antibiotics.

Keywords : antibiotic therapy and laser applications

Unusual Severe Mandibular Deflection During Mouth Closing as a Psycosomatic Problem

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Psychiatric comorbidities such as depression, anxiety, paranoia, personality or somatoform disorders are usually concomitant with different degrees of temporomandibular disorders. The aim of this case report was to present severe mandibular deflection during mouth closing as a psychosomatic disorder.

Thirty years old female patient referred to the oral and maxillofacial surgery clinic with a complaint of painful, involuntary and directionless leftward mandibular deflection during mouth closing, hemi-facial numbness and bilateral temporomandibular joint pain which started two weeks ago following a dramatic and stressful familial event. 10 mm leftward deflection (maximal laterotrusive movement) of the mandible was observed during mouth closing. Maximal interincisal distance was 37 mm and the mandible was positioned on midline at maximal mouth opening. It was noticed that the deflection of mandible disappeared when the clinician directed the mandibular movement during mouth closing. MRI findings revealed bilateral condyle displacement and discal edema. Masticatory muscle contraction and neurologic function were normal. According to psychiatric consultation severe depression was determined and an antidepressant was prescribed to the patient. Following two weeks psychopharmaco-therapy no improvement was observed on patient's mandibular deflection. Psychopharmaco-therapy was combined with physiotherapy for one month. Full recovery of the patient was obtained after combined therapy and patient was followed for six months.

Psychopharmaco-therapy combined physiotherapy is an effective treatment option for psychosomatic mandibular deflection. The clinicians should be aware of the significant impact of psychological problems on temporomandibular disorders.

Keywords : temporomandibular disorder; psychosomatic problem; psychopharmaco-therapy

Dangerous Masticatory Space Abscess Formation as an Unusual Complication of Dental Treatment

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Masticatory space abscess is a rare complication of dental treatment and also their diagnose is difficult for both dentist and emergency department due to the complex anatomy of this region. In this case report, a 58 year-old female patient with noninsulin-dependent (type 2) diabetes who presented with right-sided facial pain and edema two weeks after right mandibular second molar's root canal treatment was described. Initial diagnose was buccal abscess and intraoral drainage was tried from vestibular sulcus; however, effective drainage could not been performed. The final diagnose, severe masticatory space infection, was detected by magnetic resonance imaging and combined pterygoid-temporal lodge involvement was noticed. The abscess formation was managed successfully with extra-oral ultrasound guided drainage and prolonged intramuscular antibiotic therapy. Pterygoid-temporal lodge abscesses are unusual and life-threatening complications of dental treatments and it is really important to diagnose this kind of abscess formation as possible as early. Although clinical differential diagnosis may be hard, knowledge of complicated anatomy allows dental clinicians more effective diagnosis and treatment of these infections.

Keywords : temporal abscess; masticatory space abscess; odontogenic infection; root canal treatment

Two Different Treatment Procedures For Central Giant Cell Granuloma Of Mandible

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Central giant cell granuloma(CGCG) is a non-neoplastic lesion of bones. Usual treatment option for CGCG is curettage, moreover non-surgical treatment options such as corticosteroids, calcitonin and interferon alpha-2a can be considered for large lesions. The aim of this report was to present two cases of CGCG, which were treated with different surgical procedures.

The first case was a 38 years old female patient who referred to our clinic with the complaint of moderate swelling of the right cheek. Radiographic evaluation revealed the presence of 35x25 mm multilocular radiolucent lesion in the right mandibular angle. Intact lingual cortical plate and base of mandible remained following the curettage of the lesion. Final histo-pathological diagnosis of the lesion was CGCG. No recurrence was observed at post-operative first year and radiographic evaluation showed that defect was healed with new bone formation.

The second case was a 34 years old, female patient who referred with the complaint of swelling at the chin. Multilocular radiolucent lesion was observed in the midline of the mandible during radiographic evaluation. The lesion was 26,4x16,7 mm in diameter and destructed base of the mandible. Extraoral approach with submental incision and curettage of the lesion was performed. Mandibular basis was reconstructed with an autogenous iliac crest graft. The histo-pathological diagnosis of the lesion was CGCG. No recurrence and complete healing of grafted region was observed at the first year post-operative follow up.

Two patients with CGCG were successfully treated with curettage. One of the patients undergone mandibular reconstruction with iliac graft following the curettage. The bony defects were healed with new bone formation and adequate function was established. Curettage may be enough for lesions which do not involve the base of the mandible; however, reconstruction is essential for lesions which destruct base of the mandible.

Keywords : giant cell, bone pathology, iliac graft

A RARE İATROGENİC COMPLİCATION DURING TOOTH REMOVAL

sohrab popal¹ ¹sohrab popal ²elif ozcelik ³aysegul sipahi ⁴sertac aktop ⁵hasan garip

Tooth extraction complications are common and may occur during or after tooth removal. These complications may include: Damage to adjacent teeth, dry socket, swelling , bleeding, fractured jaws, nerve injury, emphysema, edema, pain and etc. Two patient were referred to our department with complaining of infection after tooth extraction. On the radiological examinations were seen broken elevator blade in the posterior mandible and in the maxillary sinus. These kind of complications may be seen rarely during tooth removal. Surgical procedures were done under local anesthesia. Broken elevator blade were removed and post operation healing is acceptable.

Keywords : tooth extraction, complication, elevator

Chronic Suppurative Osteomyelitis of Mandible: A Case Report

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Objective: Osteomyelitis is an inflammatory disease of the bone with variable clinical features that usually begins as an infection of the medullary cavity, rapidly involves the haversian system, and quickly extends to the periosteum of the area. The aim of this presentation was to describe a case of Chronic Suppurative Osteomyelitis without typical symptoms.

Case: A 46-year-old man presented with swelling his mandible biletarally. On the basis of clinical, radiological and histological findings, primary chronic osteomyelitis was diagnosed. This case of chronic suppurative osteomyelitis associated with a draining extraoral sinus, which was successfully treated with surgical debridement and excision with antimicrobial therapy.

Discussion: Chronic osteomyelitis is a bone disease that is characterized by inflammatory processes, including necrosis of mineralized and marrow tissues, suppuration, resorption, sclerosis, and hyperplasia. It develops in the jaws after a chronic odontogenic infection or for a variety of other reasons such as trauma, inadequate treatment of fracture, or irradiation to the mandible. The treatment of chronic mandibular osteomyelitis involves thorough surgical debridement and prolonged antimicrobial therapy.

Conclusion: The present case shows that surgical debridement is a definitive method of treating chronic suppurative osteomyelitis of the mandible, with favorable clinical/radiologic results and postoperative function.

Keywords : osteomyelitis, oral pathology

47 year-old female patient with intramucosal nevus

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Melanocytic nevus is a benign lesion. Intraoral melanocytic nevi are uncommon lesions, with only several hundred cases reported in the literature. The origin is not well understood, but it has been supposed that they are derived from cells that migrate from neural crest to the epithelium and chorion. Intraoral melanocytic nevi are diagnosed most frequently between the third and fifth decade of life. The hard palate is the most frequent location of melanocytic nevi, which also have been observed in the mucobuccal fold, the gingiva and the buccal mucosa. They can appear in shades of gray, brown and blue depending upon the depth of the nevus cells. Melanocytic nevus is histopathologically classified as junctional, compound, intramucosal, blue and combined types and the most common type is intramucosal.

In this poster, we relate the diagnosis and treatment of a 47-year-old female patient with a pigmented lesion of the oral mucosa who underwent excisional biopsy resulting in a diagnosis of intramucosal nevus.

Keywords : oral pathology; melanocytic nevus; intramucosal nevi

Implant Borne Dental Rehabilitation After Reconstruction Of Mandible With Free Iliac Bone Graft: A Case Report

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Objectives: Extensive resection of neoplasm and trauma in the maxillofacial region often result in bone and soft tissue defects which results in very challenging functional rehabilitation and can significantly diminish quality of life. The iliac crest has a unique advantage over other donor sides in terms of bone quality and quantity. Dental implant placement is a substantial part of dental rehabilitation for reestablishment of oral function after segmental mandibulectomy. Implant borne rehabilitation of mandible after reconstruction with iliac graft demonstrates a good prognosis based on the high success and survival rates of implants.

Case Report: 34 years old, male patient referred to our clinic for dental rehabilitation of right posterior mandible. That was learned from the medical records of patient, reconstruction of right mandibular ramus with fibula graft after segmental resection was performed in a different university hospital 16 years ago. Due to infection of graft, it was removed and replaced with iliac graft, two months after first surgery. No other complication was noted to medical records of patient. During clinical and radiographic examination radioopaque and radiolucent lesions were observed at the anterior mandible. Sufficient bone volume in the iliac graft observed and no recurrence of lesion was confirmed. Radioopaque and radiolucent lesions of anterior mandible were surgically excised and histomorphologic examinations were compatible with compound odontoma and inflammatory odontogenic cyst. After three months of healing period two endosseous implant were placed to anterior mandible and other two were placed to iliac graft. Fixed partial dentures to the mandible was delivered after three months of osseointegration. At the one year follow up control, healthy peri-implant tissue and no significant marginal bone loss was observed. Patient reported satisfactory functional and esthetic results.

Conclusion: Endosseous implant placement and prosthetic rehabilitation has been an integral part of dental rehabilitation following reconstruction of segmental defect with free vascular grafts. High level of patient satisfaction with oral function and esthetic can be achieved via this technic.

Keywords : implant, iliac graft, dental rehabilitation

Interdisciplinary Treatment Of A Bilateral Cleft Lip And Palate: A Case Report

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Background: Cleft lip and palate (CLP) is a congenital birth deformity. The etiology is related to both hereditary and environmental factors. Patients with CLP may have other features such as midface deficiency resulting in a Class III tendency, transverse maxillary deficiency, alveolar cleft, and hypodontia. The soft and hard tissue deformities with related skeletal and dental malocclusion complicates the treatment of CLP. Interdisciplinary approaches are essential during treatment of CLP patients to obtain functional and esthetic outcomes.

Case Report: A 13 years old girl with non syndromic CLP was referred to our clinic. She had received primary lip repair and palatoplasty in the first year of life. During clinical examination maxillary retrusion and widening of alar bases were observed. Her intraoral photographs showed constricted V-shaped maxillary arch, bilateral posterior cross-bite and big palatal fistula in the midline of the hard palate. Orthopantomography revealed congenitally missing lateral incisors and right central incisor. Bilateral osseous defects and little osseous support for central incisor was also considered. Maxillary transverse deficiency was corrected with hyrax appliance. Braces were applied to maxillary tooth. Fistula of palate was closed by tongue flap after maxillary expansion. Iliac crest was grafted in palatal osseous cleft. Then rhinoplasty was performed to correct nasal tipping. Distraction osteogenesis was preferred to correct maxillary retrusion of patient, instead of Le fort I advancement. Because of palatal scar, conventional orthognatic surgery may not ensure adequate advancement and long term stabilization of maxilla. During computed tomographic evaluation of maxilla failed iliac graft was noted and bilateral osseous defects was still present before surgery. The internal distractor was adapted to 3D maxilla model of patient preoperatively. A bite splint was fabricated preoperatively to prevent medial deviation of lateral segments of maxilla and enable advancement of premaxilla during distraction osteogenesis. 13 mm advancement was achieved in the 13 days, following consolidation period. Required overjet was obtained. After distraction period elastic force was also used to get the proper interarch relation.

Conclusion: Patient was successfully treated by interdisciplinary treatment. Patient recorded satisfaction with outcomes of treatment. Different morphologic properties of

CLP patient should be considered during orthodontic and surgical treatments to prevent complications and achieve stable results.

Keywords : cleft lip-palate, interdisciplinary treatment, maxillofacial reconstruction

Mandibular Fracture Associated With Third Molar Removal In An Osteoporotic Patient: A Case Report

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Objective

The aim of this study is to represent a rare case of mandibular fracture occurred after third molar removal related to osteoporosis and vitamin D deficiency.

Case report

A 50-year-old female patient was referred to our clinic with a diffuse pain on the left side of the mandible. Sistemically she had vitamin D deficiency and osteoporosis. She also mentioned bruxism. A panoramic radiograph revealed the presence of a distoangular and deeply impacted mandibular third molar close to the mandibular nerve. A detailed information was given to the patient about possible nerve injury after operation and a written consent form was obtained before the surgery. Extraction of the tooth 38 was performed under local anesthesia without any intraoperative complication. Two weeks after the operation, the patient admitted to our clinic again with swelling, pain and paresthesia of the lower lip. She described that she heard a cracking noise and pain during chewing three days ago. A panoramic radiograph and volumetric tomographic scan showed an oblique fracture line on the left mandible buccal cortex extended from the socket of the third molar to lower mandibular border. The lingual bone of mandible was intact. The fragments were not displaced and the occlusion was stable. We decided to follow up the patient and advised soft diet. Antibiotic and Vitamin B were prescribed to the patient. After a month the paresthesia was improved. Bone union and complete healing observed at the fourth month on panoramic radiographic examination and volumetric tomographic scan.

Conclusion

Prior to the extraction of the lower third molars, if the tooth is deeply impacted the patient must be informed about the risk of fracture especially in osteoporotic patients.

Keywords : mandibular fracture, third molar surgery, complications

Management Of Oral Mucocele On The Ventral Surface Of The Tongue: A Case Report

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OBJECTIVE

Mucocele is a clinical term that describes swelling caused by the accumulation of saliva at the site of a traumatized or obstructed minor salivary gland duct. It is the most common benign minor accessory salivary gland lesion. Clinically they are characterized by single or multiple, soft, fluctuant nodule, ranging from the normal color of the oral mucosa to deep blue. Oral mucoceles were highly prevalent in the age group of 15-24 years, were seen in 51.72% of males and 48.28% of females, with a ratio of 1.07:1. The extravasation type (84.48%) was more common than the retention type (15.52%). The most common affected site was lower lip (36.20%) followed by ventral surface of the tongue (25.86%). The lowest frequency was observed in floor of mouth, upper lip and palate. The maximum numbers of mucoceles were asymptomatic (58.62%), and the color of the overlying mucosa had color of adjacent normal mucosa (48.28%). It was also observed that most of the mucoceles had diameter ranging from 5 to 14 mm. The causative factors of the lesion were lip biting (22.41%), trauma (5.18%) and numerous lesions (72.41%). The treatment of choice for mucoceles is surgical excision. Removal of the associated salivary glands is essential to prevent recurrence. The aim of the current report is to present the surgical removal of oral mucocele seen on the ventral surface of the tongue.

CASE REPORT

A 27-years-old man referred to our clinic with a big lesion on the right ventral surface of the tongue for 3 weeks. Clinical examination showed a well-defined fluctuant nodule, unilateral, painless, asymmetric and well-circumscribed masses on the ventral surface of the tongue. Intraoral examination revealed approximately 1.5x2 cm in size. The lesion presented similar in color to the oral mucosa.

RESULTS

Surgical excision of the extravasation type oral mucocele was made under local anesthesia and the histopathological examination was confirmed as oral mucocele. The surgical excision margins were all safety clear of lesion. The patient is now free from lesion and is followed up carefully.

CONCLUSIONS

The non-neoplastic diseases of salivary gland pose a diagnostic and therapeutic challenge to the clinician because of close resemblance of clinical presentation despite different etiologies such as reactional inflammatory processes, metabolic and immune disorders, infections and iatrogenic responses. Thus, clinical knowledge of oral lesions, as well as the determination of aspects related to the etiopathogenesis of these lesions, is necessary for the correct diagnosis and for the indication of appropriate treatment.

Keywords : mucoccele, tongue

Management of Implant Treatment for Insufficient Keratinized Gingiva by Modified Kazanjian Technique; Two Cases Report

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Maxillofacial surgeons are often faced with extensively atrophic mandible with insufficient keratinized gingiva. Dental implant treatment is the best method of achieving prosthetic management in edentulous mandible. Atrophic mandible which might have a shallow buccal vestibule and high insertion of the mentalis muscle, in relation to the crest of the ridge. Vestibuloplasty techniques like Kazanjian aim to eliminate the muscle insertions, reposition the mucosa and increase the attached gingiva, giving more stability to the edentulous prosthesis. Keratinized mucosa surrounding the implant and abutment helps protection against mechanical trauma. These mechanical trauma cause inflammation at soft tissue, hyperplasia of the surrounding mucosa and marginal bone loss around the implant. This paper attempt to manage with atrophic mandible with insufficient keratinized gingiva by modified Kazanjian technique. We inserted 2 implants and made modified Kazanjian technique at the same time. Bipedicled mucosal flap was developed in the labioalveolar mucosa for extended vestibular depth, soft tissue healed secondary epithelization. We punched the mucosa for putting implant healing caps on the implants and placed modified edentulous prosthesis into the patients. We made one surgery for vestibuloplasty, placing implant and gingival healing. In this treatment method; we decreased total treatment time, avoid second surgery, increased the long-term patient comfort, gained vestibular depth and improved oral hygiene. The patients was followed up average 15 (13- 17) months.

Keywords : atrophic mandible, implant, vestibuloplasty, keratinized gingiva

Treatment Of Dentigerous Cyst With Marsupialization in Pediatric Patients

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Dentigerous cyst is a developmental odontogenic cyst and most common cyst in oral and maxillofacial surgery. It is a benign and asymptomatic intraosseous lesion. Treatment can be change marsupialization to enucleation. Intraosseous lesions may interfere tooth eruption. In this article marsupialization used for treating dentigerous cysts in children. Impacted teeth associated with dentigerous cyst have been reported to erupt after marsupialization provide space is maintained for eruption. Important benefits of marsupialization include the ability to preserve adjacent anatomy and low associated morbidity compared with other invasive treatment options.

Keywords : dentigerous cyst.marsupialization.eruption

Using Piezoelectric Surgery for the Treatment of TMJ Ankylosis

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Purpose: The surgical protocol for bony TMJ ankylosis involves resection of the bone mass to create a gap about at least 10 mm. It is important to work meticulously on the removing ankylotic bone and the mobilization of the mandible. Piezoelectric surgery represents a novel and alternative method to the conventional hard tissue management with rotary and manual instruments in the TMJ ankylosis surgery. The special features of piezoelectric surgery may be beneficial for the surgeries involving TMJ bone surgery. This paper reports the gap arthroplasty treatment of three cases of TMJ bony and fibrous ankylosis utilizing piezosurgery.

Materials and Methods: The first case was 16-year old boy presented with post-traumatic bilateral bony ankylosis. Pre-operative maximal interincisal opening (MIO) was 12 mm. The second case was 42-year-old male patient with unilateral TMJ fibroankylosis. The last case was 21-year-old male patient also with unilateral TMJ bony ankylosis. All of the patients were operated under general anesthesia using fiberoptic guided nasal intubation. None of the patients required tracheostomy. Standard preauricular incision was used to reveal TMJ and ultrasonic surgery device was used for resecting ankylotic bony mass carefully. All of the cases were also received ipsilateral coronectomy in a same manner. After achieving enough space for TMJ gap arthroplasty, mobilization of mandible and interincisal opening was checked intra-operatively. Aggressive physical therapy was instituted on the 7th postoperative day for all patients.

Results: Patients responded to the surgery well and postoperative period was uneventful without any complications. Hemorrhage was minimal during bone cutting due to effect of cavitation effect. Postoperative maximal interincisal opening was 36mm, 38mm and 40mm for all three patients, respectively.

Conclusion: This report demonstrates the value of utilizing piezosurgery device for resecting ankylotic bone in TMJ area where bone cutting extremely sensitive and difficult due to adjoining important neural and vascular structures.

Keywords : tmj ankylosis, piezosurgery, coronoidectomy, gap arthroplasty

An unexpected complication of Le Fort I osteotomy

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Le Fort I osteotomy is a routine procedure for oral and maxillofacial surgeons. Following advances in instrumentation and anesthesia, it is usually carried out safely as an elective procedure in hospitals with no adverse complications. Life threatening complications are rare. An unexpected intraoperative complication of Le fort I osteotomy, puncture of nasotracheal entubation tube, was presented in this case.

Keywords : le fort I, complication , nasotracheal tube, anesthesia

Oral squamous cell papilloma of the mandibular molar gingiva

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Oral squamous cell papilloma is a benign proliferation of the stratified squamous epithelium, which results in a papillary or verrucous exophytic mass. They are common lesions with a predilection for the mucosa of the hard and soft palate. When they occur on the gingival mucosa, they are most often asymptomatic and benign. Many considered its pathogenesis as being from the human papillomavirus (HPV) there is controversy regarding its viral origin. A 30 year-old-male patient reported in this case report, had pedunculated squamous cell papilloma in the gingival margin of the left mandibular third molar. The patient referred to our department, with a chief complaint of growth on the gingival margin of the left mandibular third molar for 3 months, also suffered from pain and hemorrhage. Intraoral examination revealed that papillary surface architecture of the lesion is characteristic of an oral squamous papilloma. The lesion and the pedunculated attachment were surgically excised with a 1 mm margin to the depth of the gingiva. The second and third molar teeth were also extracted and sutured. The histological analysis confirmed that the lesion was a squamous cell papilloma with no evidence of epithelial invasion in the connective tissue wall. There was no evidence of recurrence of the lesion at one-year follow-up period.

Keywords : oral lesion, papilloma

Autotransplantation of Impacted Maxillary Second Molar to Replace the Nonerupted First Molar Due to a Compound Odontoma

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Maxillary first and second molar impaction is rarely seen together. Treatment methods involving uprighting, extraction or autologous tooth transplantation have been described. The aim of this case report is to present the autotransplantation of second molar tooth to replace the nonerupted first molar in the same quadrant.

A 11- year-old boy with the chief complaint of unerupted left maxillary molars was referred to our clinic. The patient had a skeletal class II malocclusion, with a class II molar and canine relationship and crowding. Radiographic evaluation revealed the combination of a horizontally impacted maxillary left first molar at maxillary sinus floor owing to presence of compound odontoma as well as horizontally impacted maxillary left second molar and third molar germ. Since the patient rejected the orthodontic treatment, the odontoma and first molar is extracted without damaging the second premolar, then the immature second molar was removed from its socket, transplanted to the recipient site where the first molar was extracted. Second molar and second premolar were splinted using twist flex wire for a month. The transplanted second molar had alveolar bone support only at the palatal side because of the surgical removal of severely impacted first molar.

Following the removal of the stabilization splint no mobility of the transplanted tooth was observed. Radiographic examination indicated that bone regeneration started around the transplanted tooth and root development continued. Even the alveolar bone support is not adequate autologous tooth transplantation of immature teeth is a feasible, fast and economical choice for the treatment of impacted teeth when a suitable donor tooth is available.

Keywords : autotransplantation, compound odontoma, impacted maxillary first molar

Surgical Navigation For Implant Placement Using Radiovisiography

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Objectives: We aimed to present a new guidance technique using radiovisiography in the operating room and to test the accuracy of this surgical protocol.

Method: Implant placements into the narrow or unsuitable bones in upper or lower jaws require surgery guides and specific surgical protocols. One of the methods to assist practitioners during the operation is radiological guidance systems. In our case, a patient with missing first premolar tooth in his right mandible referred to our department for implant placement. Clinical and radiological examinations showed that there was not sufficient distance between adjacent roots on both sides of space. After the orthodontic distalization of adjacent tooth roots implant placement was performed. After using first drill, an radiograph was taken. Distances between drill and adjacent roots was noted and angulation of drilling was changed nearly 5° to distal.

Results: Implant placement completed succesfully without any contact to adjacent roots.

Conclusions: This protocol is seen as sensitive as other guidance or navigation systems. It has been observed that the use of radiovisiography guidance during implant surgery is useful and handy protocol in especially crucial cases.

Keywords : implant, surgical navigation, radiovisiography

Endoscopic transnasal extraction of tooth

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Caldwell-Luc procedure, is the most common approach performed by maxillofacial surgeons, for maxillary sinus surgery. This procedure involves raising of a mucoperiosteal flap and bone removal to create a window into the maxillary sinus. However in recent years transnasal endoscopic sinus surgery that spares the morbidities of traditional approaches is more commonly offered to the patients.

A 22 year old male patient was referred to our clinic for removal of an ectopic third molar tooth in the right maxillary sinus. We performed endoscopic transnasal technique and in contrary to the Caldwell luc procedure there was no post-operative clinical oro-antral communication.

Endoscopic transnasal removal of foreign bodies within the maxillary sinus is a safe and minimally invasive procedure compared to the classic Caldwell-Luc procedure.

Keywords : endoscopy, transnasal tooth extraction, ectopic tooth

MARSUPIALIZATION OF KERATOCYSTIC ODONTOGENIC TUMOR: A CASE REPORT

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The odontogenic keratocyst (OKC) has been one of the most controversial entity of the jaw. OKC, now known by the World Health Organization as keratocystic odontogenic tumor, can be treated enucleation alone, enucleation with various adjunctive therapy, such as Carnoy's solution, peripheral osteotomy, cryotherapy, decompression or marsupialization with or without secondary adjunctive surgery and more aggressive radical surgical resection. Enucleation is the treatment of choice if it can be performed without damage to adjacent structures. Marsupialization has been used as a more conservative form of treatment for large OKCs to minimize the cyst size and limit the extent of surgery. It is a surgical technique by which a window is produced in the wall of the cyst to relieve the intracystic pressure and enable the cavity to decrease slowly in size. Later, when sufficient bone has been deposited and the adjacent vital structures have been saved from damage, complete enucleation can be performed as a second-stage procedure. The timing of enucleation after marsupialization is usually determined by the morphologic changes within the cyst area. We report a case of 18 year old patient with a keratocystic odontogenic tumor involved impacted teeth. A panoramic radiograph was obtained; a big unilocular radiolucency from lower right premolar until the left condyle side. Paresthesia or pain had not seen. In the present study, a large keratocystic odontogenic tumor was treated by marsupialization with enucleation was reported.

Keywords : keratocystic odontogenic tumor, marsupialization

A RARE CASE OF DESMOID FIBROMATOSIS OF THE MAXILLA

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Fibromatosis are proliferations of highly differentiated fibrous tissue. The deep or musculoaponeurotic types of fibromatosis are known as desmoid fibromatosis (DF), aggressive fibromatosis, or desmoid-type fibrosarcoma. It is commonly seen as abdominal tumors; the occurrence of these tumors in maxillofacial region is a rare entity. It is a histologically benign, deep-seated monoclonal myofibroblastic neoplasm that originates from musculoaponeurotic stromal structures and displays locally aggressive growth. The incidence of DF is 2 to 4 per 1 million population annually, with a female/male ratio of 3:1. The incidence of DF in children peaks at about 8 years of age (range, birth to 19 years). In adults, DF peaks in the third and fourth decades. Local trauma, genetic mutations and hormonal levels are the causative factors of this disorder. Head and neck lesions are more aggressive than extra-abdominal fibromatosis arising elsewhere and are capable of massive destruction of the adjacent bone, erosion of the base of the skull, and occasionally encroach on the trachea, sometimes with fatal outcome. A 27 year-old man was referred to our clinic by an oral radiologist because of a radiolucency that was detected during a routine dental visit. On panoramic radiograph, there was an unilocular radiolucency at his upper left premolar area. Although swelling or pain had not been seen, root resorption was observed on the teeth in related area. The extraoral examination of the patient did not show any cervical or submandibular lymphadenopathy. There was no significant facial or cervical asymmetry.

The surgical plan was enucleation of the lesion. The enucleated mass was submitted for pathologic examination. Histopathologic examination showed that it was desmoid fibromatosis. In pathologic records, apart from normal appearance there were immature odontogenic epithelial remnants and myxoid matrix in examined mass. In the present study, a rare case with desmoid fibromatosis was reported.

Keywords : desmoid, fibromatosis, maxilla

Experimental comparison of three different fixation methods of sagittal split ramus osteotomy

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Sagittal split ramus osteotomy is a surgical technique that has been widely used to correct many congenital and acquired mandibular deformities. Wire osteosynthesis , metal plates and screws and various combinations of both are used for fixation in this method. But the ideal technic is still debated. This in vitro investigation was developed with the purpose of comparing the biomechanical features of 3 different methods of rigid internal fixation for sagittal split ramus osteotomies. Nine adult sheep mandibles were stripped of all soft tissues and sectioned at the midline. Each side of the mandible had a sagittal split ramus osteotomy and was advanced 5mm. Six of the hemimandibles were fixed with 3 bicortical positional screws in a traditional inverted-L pattern, six were fixed with sagittal split sliding plates and six were fixed with sagittal split plates. All specimens were mounted in a servohydraulic testing unit, displacement of each proximal segment was recorded every 5 N force. The 3 bicortical positional screws group showed a significantly higher value for stability than the other two groups. There was no significant difference in stability between the sagittal split sliding plates and sagittal split plates.

Keywords : sagittal split ramus osteotomy, fixation methods, stability

Implant loss caused by periapical lesion of an adjacent tooth

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Numerous reports link failure and loss of implants as well as implant complications to the development of pathosis in adjacent teeth that are either root treated or undergo pulpal necrosis and infection of the root canal system and periapical tissue. 60-year old male patient referred to our clinic with a mobile implant on maxillary right incisor site. The diagnosis of a large radiolucent lesion associated with implant and adjacent canine tooth was described in panoramic radiograph. The mobile implant was removed and cyst-like lesion was enucleated. Lesion at the apical sites of the canine and lateral tooth was remarkable on the patient's panoramic radiograph which was taken before lateral tooth extraction and implant placement. This case report addresses the concerns in the literature that an adjacent endodontic pathosis or residual lesion at the implant area may result in the loss of an implant.

Keywords : implant, apical lesion, implant loss

Assessment of Changings on Masseter Muscle Hypertrophy After BTX-A Implamentation

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In recent years, BTX-A has been widely used for treating a variety of neuromuscular disorders such as strabismus, blephorospasm, hemifacial spasm and torticollis, migraine, hyperhidrosis, esophageal achalasia, bruxism, masseter hypertrophy (MMH) and oromandibular dystonia (OMD). Masseter muscle hypertrophy (MMH) is a benign, unilateral or bilateral painless enlargement of masseter muscle. It may arise from habitual unilateral chewing, temporomandibular joint disorder, loss tooth, continuously gum chewing or clenching and bruxism. Oromandibular dystonia (OMD) is a group of focal dystonia that is seen on lower face muscle and develops as idiopathic. If the masseter muscle is affected spasm will occur and this situation may compel the jaw lateral and protrusive movement, may force the jaw remain close or open position. If the masseter and temporal muscles are contract involuntarily bruxism and trismus are seen. The purpose of this study was to evaluate pre- and post-operative changes in volume and surface area in masseter muscle after administered BTX-A using three dimensional close range photogrammetry in two patients.

Keywords : botulinium toxin, masseter muscle hypertrophy

Publication Number : PP - 058

Abstract Referance : 124

A rare case of maxillary osteomyelitis

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Osteomyelitis of the jaws is predominantly a disease of the mandible, whereas the maxilla by virtue of its vascularity and thin cortical plates is less frequently involved. The patient was referred to our clinic with complain of purulent efflux. A maxillary osteolytic lesion was determined in routine radiographic examination. There was any specific causative factors for osteomyelitis like odontogenic infection, whether from periodontal disease, periapical abscess, or adjacent soft tissue infection, contaminated maxillofacial fractures or foreign bodies such as implants, wires, bone plates and screws. To perform histopathologic assessment excisional biopsy was made. The surgery, performed under local anesthesia, removed the whole lesion of necrotic bone. Final diagnosis was osteomyelitis.

Keywords : maxilla, osteomyelitis

Oral melanotic macula:a case report

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OBJECTIVE

Melanotic macula (MM) is a rare oral disorder of pigmentation. The etiology is not clear and it may represent a physiologic or reactive process. The average age of presentation is 43 years with female predilection. These lesions are oval or irregular in outline , brown or even black, usually less than 0.5 cm in diameter and tend to occur on the gingiva, palate, and buccal mucosa. Histologically, it is characterized by in situ increased production of melanin by basal melanocytes, which are otherwise normal in number and distribution, or display increased numbers of melanocytes along the junctional zone in the case of the labial melanotic macules. Melanin pigment also may be observed in melanophages in the upper portion of the lamina propria. It could have be causal or incidental to the appearance of these lesions. A biopsy is recommended to distinguish these lesions from each other and from other oral melanotic lesions. Treatment is not required. The aim of the current report is to present the MM observed at gingiva in a patient.

CASE

A 50-year-old women referred to our clinic has a lesion at the maxially first premolar vestibulum. Intraoral examination revealed well-circumscribed, brown to black, asymptomatic, macular lesion that measured 2 millimeteres. The lesion was smooth, macular and not ulcerated, with normal mucosal texture under palpation. Biopsy was made under local anesthesia and examined histopathologically. Numerous melanophages were noted . Biopsy on the surface squamous epithelium acanthosis, increased melanin pigment content, including more pronounced in interpapil extensions of the end portions , melanophage in case mild inflammatory infiltration and spray containing subepiteryal field of lymphocytes and plasma cells was observed. The biopsy diagnosis was melanotic macula.

CONCLUSION

MM is a bening pigmented, uncommon, reactive lesion in oral cavity. We reported the case of MM observed at gingiva in the patient. Biopsy was made and examined. Diagnosis was MM. Clinicians should be aware of this possible event and make a correct and pathologically confirmed differential diagnosis,confirmed by means of pathological analysis.

Keywords : melanotic macula,melanin pigment,melanophage

Treatment of temporomandibular joint internal derangements with open surgery: a case report

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OBJECTIVE: Temporomandibular joint disorders have a negative effect on a wide portion of the population. An important part of these disorders involve internal derangement problems. Main causes of internal derangements can be classified as acute macrotrauma, chronic microtrauma, or developmental and acquired defects. The goal of surgical treatment of temporomandibular joint internal derangement is to regain adequate nutrition and masticatory functions. The aim of the current report is to present the open surgical treatment of a patient with temporomandibular joint derangements.

CASE: A 40-year-old woman was referred for severe pain and restricted jaw movements for the treatment of a severe mouth opening restriction and pain in the TMJ. The patient gave a history of pain in the TMJ area and had undergone a previous operation. 1.5 years before, she underwent surgery for temporomandibular disc repositioning due to persistent pain in the left joint associated with disc displacement. Symptoms and joint sounds resolved after the intervention, but 2 months later she started pain and functional limitation again. Post-operatively, the range of mandibular movements decreased rapidly. The maximum mouth opening was 5 mm, with absence of endfeel distance, and computerized tomography showed significant degeneration of the mandibular articular disc of the right TMJ. The clinical diagnoses were confirmed by the surgical findings.

The posterior and anterior attachments of the disk were exposed, and the disk was excised with scissors and scalpel. Inspection of the joint surfaces followed, and careful irrigation and hemostasis was performed. The condylar head was checked for mobility in lateral movements and anterior translation. The wound was then closed in layers, and the skin was sutured with 6-0 Dermalon. In the oral cavity, 10 dental implants were placed. The antibiotics, anti-inflammatory and analgesic were given. Postsurgical care included instructions in active mobility training of the mandible to start on the day of the surgery and continue for at least 2 months. 3 months later prosthetic treatment was made. At her one-year review, she reported no joint pain with an interincisal opening of 36 mm and was enjoying a normal dietary range.

CONCLUSION:The role of TMJ surgery in the management of common disorders such as traumatic injuries and internal derangement. We reported the case of treatment of temporomandibular joint internal derangements with open surgery in the patient. Discectomy was performed on the joint. 10 dental implants were made in to the oral cavity. 3 months later prosthetic treatment was made. A carefully tailored post-surgical rehabilitation protocol helped the patient to gain a clinically significant improvement in jaw function. Longer follow-up periods are needed to assess the long-term maintenance of results.

Keywords : temporomandibular joint internal derangement, discectomy, post surgical rehabilitation

Guided Bone Regeneration With Titanium Meshes: A Case Report

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Objective: Oral rehabilitation with grafting and dental implants proved successful for patients who had traumatic injury resulting in tooth loss and damage to adjacent bone. The objective of this presentation is to evaluate repairing of bone defect caused by tooth fracture with a titanium mesh.

Method: Several techniques could be used to repair bone defects. Alveolar bone regeneration with titanium meshes is a widespread procedure for bone regeneration. A-47-year old man with fractured maxillary right first premolar and bone defect at same region referred for implant treatment. After extraction of tooth, the vestibular bone defect was observed. For treatment a titanium mesh was placed surgically at operation area without any graft material and fixed with mini screws.

Results: Titanium mesh was removed and a dental implant was placed into the healing bone. After four months fixed prosthetic restoration was completed with patient's satisfaction.

Conclusion: Titanium meshes can be useful to repair bone defects. In guided bone regeneration with using titanium meshes, there was no need to wait graft ossification. Titanium mesh offered an excellent solution and had some advantages like time consuming and more cost effectiveness.

Keywords : gbr, titanium mesh, augmentation

Periosteal Expansion Before Local Bone Reconstruction And Implant Placement

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Introduction and Aim: Several techniques have been developed to increase bone volume for overcoming anatomic limitations of the residual jaw bone crest, which frequently preclude the ideal placement of dental implants. Hydrogel expansion of the periosteum is an applicable method to achieve a surplus of soft tissue to cover bone grafts. The aim of this presentation was describe a patient's treatment with soft tissue expander before grafting.

Case: 30 years-old female patient presented to our department for implant treatment. After clinical and radiological examination, vertical and horizontal bone deficiency was seemed at right mandible. A self-inflatable soft tissue expander was placed under the periosteum. After 2 weeks, the expander was removed and a particulated onlay bone graft was placed in the expanded area. At augmentation after soft tissue expansion, primary wound closure was easily achieved. There were no soft tissue-related complications such as necrosis, perforation, infection, or wound dehiscence. Two implants were placed 4 months after augmentation. Two months after implant placement, final prosthetic treatment was carried out.

Conclusions: Within the limits of this observational clinical study, hydrogel expanders may help to generate additional soft tissue, and they might contribute to the overall improvement of the bone augmentation process by reducing the risk of complications related to the lack of soft tissue.

Keywords : soft tissue expander, periostal expansion, onlay grafting.

Septa within the sinus: A New procedure for Lateral Approach

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Objective: Inadequate bone height in the the maxilla bring out a contra-indication for implant surgery. The elevation of the sinus floor allows implant placements in maxilla. The incidence of antral septra varies between 16% and 58% according to the literature. The aim of this prensentation is present new lateral approach protocol for sinus flor elevation.

Case: A 40-year-old woman refered to our department for implant placements. In radiological examination a sinus septum was observed in the right maxillary sinus. Under local anesthesia we prepared two separate windows (trap-doors) on the lateral wall of the sinus. Floor elevations and grafting procodures on both sides were carried out separately. Six months after the grafting two dental implants placed at operation area.

Discussion: The presence of septa determines the shape of the window and can cause problems during sinus lift. If the septum is higher, the door must either follow the contour making a W-shape or two trap-doors must be prepared as we did.

Conclusion: The practitioner must have knowledge regarding the sinus morphology of the patient before the sinus lift. It is recommend that a CT is taken.

Keywords : sinus lifting, sinus septa, floor elevation

Treatment Of Chronic Oroantral Fistula

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Objective: Oroantral fistula (OAF) can occur as a result of inadequate treatments such as maxillary posterior teeth extractions, implant surgery, cyst and tumor enucleations etc. The purpose of this presentation is present the surgical treatment of large oroantral fistula.

Case: A 40-years-old male patient who have OAF, presented to our department. It was learned that extraction of maxillary right first molar was done nearly 6 months ago. The CT examination showed that a huge fistula about diameter of 12mm was occurred. After removal of adjacent tooth, buccal advancement and palatal flap technique was used for closure. Recurrence or complication was not noted during the controls.

Discussion: Oroantral fistula is an epithelialized communication between the oral cavity and the maxillary sinus. The most used techniques for the treatment of OAF involve buccal flap, palatal rotation advancement flap, Bichat fat pad.

Conclusion: Oroantral fistula should be treated by creating a physical barrier to prevent maxillary sinus infections.

Keywords : oroantral fistula, palatinal flap, buccal advancement.

Treatment Of An Oroantral Fistula Caused By Bisphosphonate-Related Osteonecrosis With A Combined Technique

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Objective: The objective of this report is to describe management of a maxillary bisphosphonate necrosis that was resulted in an oroantral fistula.

Methods: The patient, who used an i.v. bisphosphonate for 4 years, had an active pus drainage from the fistula. In order to keep the infection under control, he first received an antibiotic combination for 1 week. Then the maxillary sinusitis was managed with endoscopic sinus surgery and the fistula was repaired with a buccal fat pad.

Results: The fistula was successfully closed. After 8 months, the patient is still symptomless.

Conclusion: Buccal fat pad is a viable option for management of bisphosphonate related maxillary sinus perforation.

Keywords : bisphosphonate necrosis, oroantral fistula, endoscopic sinus surgery, buccal fat pad

Alveolar Ridge Augmentation Using Autogenous Block Bone Graft: A Case Report

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OBJECTIVE: Bone augmentation has been proposed to augment the width of edentulous ridges for implant placement. This study presents the effect of a membrane on SBA for the regeneration of buccal implant dehiscence defects using block grefts, harvested from mandibular ramus combined with particulate xenograft and collagen membrane [case class IV(according to Cadwood and Howell's classification)].

MEDHODS: An 18 year-old-female was refered to our department for implant rehilitation of her edentulous left central maxillary region. She had lost her left central maxillary tooth by an accident when she was 10 years old. Clinical and radiographic examination showed that buccal and palatine alveolar bone of left maxillary central region were present severe defects. Autogenous graft was obtained from mandibular ramus. Titanium screws were used to stabilize the graft onto the recipient area. Small gaps at the edges of the autogenous bone graft were filled with xenograft bone grafting material. The graft material was stabilized with an absorbable collagen membrane for guided bone regeneration. The site was re-entered after 6 months for removal of the fixation screw and placement of the implants. Four months after the second stage surgery, healing abutments were placed to achieve an esthetic soft tissue emergence profile.

RESULTS: Autogenous bone grafts are recommended in bone augmentations prior to implant placement because of their osteogenic potential. Mandibular ramus donor site provided enough ridge width for proper implant placement.

CONCLUSION: A combination of block graft, obtained from with mandibular ramus, particulate xenograft then covered with an absorbable collagen membrane is apredictable technique for augmenting anterior maxillary horizontal ridge deficiency.

Keywords: bone graft, mandibular ramus, horizontal bone augmentation, block graft, bone grafts, ridge augmentation, onlay grafting, anterior maxilla

A Case of Anesthesia Complication: Emphysema

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Objective

Emphysema is a kind of complication which occurs after dental infiltration and tuber anesthetic. If an air bubble is injected into the subcutaneous tissue, emphysema is occurred. Typical symptoms are swelling and crepitus on palpation.

Methods

A 42 year-old male patient referred to our clinic because of the unilateral swelling of left cheek following a local anesthetic administration. He hasn't systemic disease. We couldn't find crepitation on palpation. We thought that, it could be a hematome because of plexus pterygoideus trauma or posterior superior alveolar artery. CT was requested for a correct diagnosis. We monitored easily air bubbles on CT views.

Results

We started to alcohol application on twice a day. Following therapy, symptoms disappeared with in a few days.

Conclusions

If we have perfect anatomic information and experience, complications will minimize during dental operation.

Keywords : emphysema, anesthesia complication, crepitation, hematome

Why Do We Need To Extract Third Molar Teeth: The Effect to Social Security System

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Objective:

This study aimed to investigate the impact of the parameters including patient age and sex, number and position of teeth, and clinical status on the decision to extract third molars.

Materials and methods:

This study reviewed the medical data of 180 randomly selected patients who applied to Ankara University, Faculty of Dentistry, Department of Oral and Maxillofacial Surgery, with erupted or unerupted third molar teeth that had an indication to extract between 2014-2015. The patients were categorized according to patient age and sex, number and position of teeth, and clinical status; the study data were then analyzed using Chi-square test and SPSS statistics software package, CHAID decision trees, and SPSS Clementine software package.

Results:

In study population, 47,8% are most of the young adults between the ages of 21-35, %40,6 are adolescent (age<21), %11,7 are adults (age>35).

Of the study population, 39,4% were asymptomatic; the extraction was carried out for pericoronitis in 15% of the patients and for an orthodontic indication in 11.1%.

In erupted or semi-erupted teeth (n=79) the indication of extraction was pericoronitis in 31.6% and decayed teeth in 18.9%, while 29.1% of the extracted teeth caused no symptoms.

As for the fully impacted teeth (n=101), the rate of extraction of asymptomatic teeth was 47.5%, the rate of extraction of asymptomatic teeth was 46% in patients younger than 21 years and 49% in those older than 21 years of age (p<0.05).

Conclusion:

This small-scale study suggested that a wide-scale public discussion should be undertaken on the impact of extraction of asymptomatic teeth on the social security system of Turkey that has approximately 25 million young adults.

Keywords : third molar, pericoronitis, extraction of third molars

A case report of metastasis of malignant mesothelioma to the retromolar trigone

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Introduction: Malignant mesothelioma predominantly arises from the serosal surfaces of the pleural or peritoneal cavity. There is currently no effective standard treatment for mesothelioma and the prognosis for patients is poor. Occurrence of the malignant disease typically carries an average survival rate of 9–12 months. Distant metastases are common but only a few cases are reported to the oral cavity.

Case: In the current report, a 59-year-old male with metastatic mesothelioma is presented.

To the best of our knowledge, this is the first report regarding the metastasis of this type of neoplasm to the retromolar trigone.

Conclusion: This case points out the relevance of biopsy to all new growing lesions, even in uncommon anatomical sites, whenever a history of mesothelioma is on record.

Keywords : malignant mesothelioma; metastasis; retromolar trigone.

Soft Tissue Flaps versus Bone Fixation Tecnique on Treatment of Oroantral Fistulas; A Case Report

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Oroantral fistula (OAF) is a pathological communication between the oral cavity and maxillary sinus which has its origin either from iatrogenic complications or from dental infections, osteomyelitis, radiation therapy or trauma. OAF closures can be achieved using different flaps or bone fixation tecniques which show both advantages and limitations. A 65 years old male heathy patient referred to our department complaining of pain on the right maxillae palatal region and persistence of non-healed orifice due to a superior tooth extraciton six months before. Patient first referred to Eskisehir Osmangazi University Medical Faculty Otorhinolaryngology Department. They performed palatal flap to treatment of oroantral fistula, however fistula did not heal due to palatal flap couldn't stretch fiil alone to close the fistula. Fistula treated our department using autogenous bone graft fixation tecniqeu and buccal flap.

Keywords : oroantral, fistula, bone, plate, screw, buccal flap, graft

Marsupialization of Dentigerous Cysts in Preadolescent Patients

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A dentigerous cyst is one of the most common developmental odontogenic cyst. It is a benign and asymptomatic intraosseous lesion that affects the bones of maxillofacial complex, interfering with tooth eruption. This poster presentation reports the case series of preadolescent patients that have spontaneous eruption or orthodontic traction of permanent teeth after marsupialization of infected dentigerous cysts and extraction of the deciduous teeth. All the radiographs showed large cysts with radiolucent areas involving deciduous teeth and unerupted permanent teeth. Although enucleation is the treatment of choice, marsupialization is the best option for large cysts involving permanent teeth for preadolescents, as in this case series. All the patients were followed at least 6 months and eruption of the permanent teeth and gradual reduction of the radiolucent area were observed.

Keywords : preadolescents, dentigerous cysts, marsupialization

Multidisciplinary treatment of a case: an unusual combination of avulsion and intrusive luxation

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Injury to the teeth and associated oro-facial structures is one of the main issues of oral and maxillofacial surgery and requires immediate intervention. Avulsions and intrusive luxations are the most challenging displacement types to manage and have the poorest prognosis of all dental traumas. In avulsion tooth is completely displaced outside the socket resulting in the damage of the supporting tissues (periodontal ligament and bone). In an intrusive luxation, dislocation of the tooth occurs in an apical direction into the socket. Combination of avulsion and intrusive luxation in a case is rare in the literature because the vector of forces causing these two injury types are in different directions.

This case report presents an unusual traumatic injury of two permanent maxillary central incisors with avulsion and intrusive luxation concomitantly. The patient is treated with a multidisciplinary approach of oral and maxillofacial surgery, endodontics and prosthodontics.

Keywords : dentoalveolar trauma, avulsion, intrusive luxation, splint.

GLANDULAR ODONTOGENIC CYST ARISING IN THE POSTERIOR REGION IN THE MAXILLA

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The glandular odontogenic cyst (GOC) described as a distinct entity by Gardner et al. in 1988 is a rare developmental odontogenic epithelial cyst. The cyst occurs more commonly in the middle age people and has a tendency to recur. The common radiographic features include a well-defined radiolucency with distinct borders, presenting an unilocular or multilocular appearance. For certain diagnosis of GOC, histopathological examination is necessary. Because of recurrence potential of the GOC, complete surgical removal and post-operative clinical and radiological follow-up is very important. In this presentation, we describe a rare case of GOC arising in the posterior region of the maxilla in a 56-year-old male and also present the clinical, radiological and histopathological features of glandular odontogenic cyst.

Keywords : glandular odontogenic cyst , sialo-odontogenic cyst , odontogenic cysts, mucous cell

Clinical and Radiological Efficiency of the Intra-articular Platelet-rich Plasma Injections for the TMJ Osteoarthritis

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OBJECTIVE: The objectives of this study were to evaluate the long-term clinical and radiological efficiency of intra-articular platelet-rich plasma (PRP) injection into the temporomandibular joints with osteoarthritis and to compare the outcomes with arthrocentesis.

METHODS: 30 adult patients for a total of 47 joints with osteoarthritis, diagnosed according to the Research Diagnostic Criteria for Temporomandibular Disorders (RDC/TMD axis I group IIb), were randomly divided into two groups (15 joints of 12 subjects with mean ages 35.08 ± 14.84 years for control group, 32 joints of 18 subjects with mean ages of 32.22 ± 14.32 years for study group). One session arthrocentesis was used for the control group, and four session PRP injections on a monthly basis (initially arthrocentesis plus PRP injection) were performed in the study group. Clinical and radiological evaluations were conducted at initially and at 12 months follow-up after the last session in both groups.

RESULTS: There was a statistically significant a reduction in the joint sound and general pain complaint in both groups and an increase in masticatory efficiency, painless interincisal opening, and lateral motion in study group. However, only the mean of the changes in masticatory efficiency showed statistically significant increase in the study group when compared to control group. CBCT evaluations showed that progression of the osseous abnormalities occurred at the rate of 87.5 and 46.6% in the study and control groups, respectively.

CONCLUSIONS: Our findings suggested that arthrocentesis and four session PRP injections are safe and promising method for the treatment of TMJ osteoarthritis, and PRP injection into TMJ is a more effective method than arthrocentesis.

Keywords : arthrocentesis; cbct; intra-articular injection; platelet-rich plasma; tmj osteoarthritis.

Segmental osteotomy for anterior open bite complicated by ankylosed maxillary central and lateral incisor: A case report

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Ankylosis of teeth is the abnormal adherence of alveolar bone to dentin or cementum. If an ankylosed tooth does not respond to orthodontic forces, surgical procedures may be indicated to facilitate movement of the tooth to the correct position including a single-tooth segmental osteotomy to reposition the alveolar bone including the ankylosed tooth. The objective of this case report is to describe the treatment of a patient with an ankylosed maxillary central and lateral incisor, with segmental osteotomy associated with a 'sandwich' bone graft technique, performed to reposition the teeth into its correct position.

Keywords : segmental osteotomy, ankylosis, sandwich tehnique

Temporomandibular Joint Osteoarthritis: CBCT Findings, Clinical Features and Correlations

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OBJECTIVE: This study was aimed to identify prevalence of and associations between clinical signs and symptoms and CBCT findings of temporomandibular joint osteoarthritis (TMJ-OA).

METHODS: One hundred seventeen TMJ of 76 patients (65 female (85.5%) and 11 male (14.5%)) diagnosed osteoarthritis according to the Research Diagnostic Criteria for Temporomandibular Disorders (RDC/TMD axis I group IIb) were included in this study. All patients were examined according to clinical sign and symptoms and CBCT findings.

RESULTS: Amounts of mandibular motions included maximal interincisal opening (MIO) with and without pain, lateral motion and protrusive motion were 29.66 ± 9.81 , 40.90 ± 8.13 , 7.5 ± 2.86 and 7.76 ± 2.69 mm, respectively. Joint sound, mastication efficiency and general pain complaint were recorded as 5.62 ± 3.37 , 6.43 ± 2.7 and 5.94 ± 2.39 , respectively. Of the 76 patients, 37 (48.7%) had pain during rest, 105 (84.2%) mastication, 88 (61.8%) phonation and 103 (81.6%) yawning. Pain during lateral palpation of TMJ was observed on 62 (53%) patients, whereas pain at posterior palpation on 27 (23.1%) of them. Of the 117 joint with osteoarthritis, 108 (92.3%) showed condylar flattening, 100 (94.1%) condylar erosion, 93 (78.9%) condylar osteophyte, 14 (12%) condylar sclerosis, 22 (18.8%) condylar hypoplasia, and 4 (3.4%) subcortical cyst. One joint for each parameter had sclerosis of articular fossa and bifid condyle. Flattening of articular eminence and pneumatization were observed 5 (4.3%) joint. Condylar hyperplasia and erosion or resorption of articular fossa weren't observed any joint. 41 (53.9%) joint had bilateral degenerations, as well as hypermobility was detected in 47 (40.2%) degenerative joint. Masticatory efficiency negatively correlated with both condylar flattening and sclerosis, and lateral motion with condylar sclerosis. General pain complaints positively correlated with both condylar flattening and degeneration grade.

CONCLUSIONS: Present study showed that prevalence of erosion, flattening and osteophytes are higher than other radiological parameters according to CBCT findings. Patients with TMJ osteoarthritis have considerable pain and joint sounds during in functional activities and on lateral and posterior palpation of TMJ, whereas reduced jaw movements and worsened mastication. Poor correlations found between almost all parameters included CBCT osseous findings and clinical signs and symptoms of TMJ OA.

Keywords : cbct, clinical symptoms, correlation, epidemiology, prevalence, tmj osteoarthritis

Assessment of Long-term Effectiveness of Dextrose Prolotherapy in Subjects with Temporomandibular Hypermobility

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OBJECTIVE: The aim of this study investigated whether dextrose prolotherapy is effective in temporomandibular joint (TMJ) hypermobility treatment.

METHODS: 22 adult patients with bilateral TMJ hypermobility, but without TMJ degenerations were randomly divided into two groups (10 subjects for control group, 12 subjects for study group). Dextrose prolotherapy injections included 2 mL of 30% dextrose, 2 ml of 0.9% NaCl₂ and 1 ml of 4% articaine or mepivacaine mixture for study group, and 4 ml of 0.9% NaCl₂ and 1 ml of 4% articaine or mepivacaine mixture for control group were performed three sessions in monthly to posterior disc attachment, superior joint space, lower and upper joint capsule and stylomandibular ligament. Clinical evaluations were conducted at initially and at 12 months follow-up after the last session in both groups.

RESULTS: There was a statistically significant decrease in the joint sound and general pain complaints in both groups. Pain during palpation of head and neck muscles were remained relatively unchanged in both groups. Masticatory efficiency is increased, but maximum jaw opening increased significantly in only study group. No statistically significant difference observed in all clinical parameters between the groups.

CONCLUSIONS: Application of dextrose prolotherapy for treatment of TMJ hypermobility is not resulted in additional benefit.

Keywords : tmj hypermobility, dextrose prolotherapy

Clinical and CBCT Evaluation of Intra-articular PRP and Hyaluronic Acid for the TMJ with Osteoarthritis Treatment

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OBJECTIVE: The aim of this prospective study was to make a long-term assessment whether the intra-articular PRP injection into the temporomandibular joints with osteoarthritis helps to minimize the clinical symptoms, and to assess how these results compared with HA injections.

METHODS: 64 TMJ joints with osteoarthritis of 43 adult patients, diagnosed according to the Research Diagnostic Criteria for Temporomandibular Disorders (RDC/TMD axis I group IIIB), were randomly divided into three groups (15 joints of 12 subjects for control group, 32 joints of 18 subjects for PRP group, and 17 joints of 13 subjects for HA group). One session arthrocentesis was used for the control group. Four session PRP injections on a monthly basis (arthrocentesis plus PRP injection in first session) were performed in the PRP group. Only one session hyaluronic acid injection was performed followed arthrocentesis in the hyaluronic acid group. Clinical and CBCT evaluations were conducted at initially and at 12 months follow-up after the last sessions in all groups.

RESULTS: Masticatory efficiency was increased significantly more in PRP group than control group, but this increase was insignificant between PRP and HA groups. No statistically significant different change was observed between groups in other clinical parameters included joint sound, general pain complaint, interincisal opening with and without pain, and lateral and protrusive motion of mandibular jaw. But, joint sound and general pain complaint were decreased and interincisal opening was increased significantly in all groups. CBCT evaluations showed that progression of the osseous abnormalities occurred at the rate of 87.5 %, 58.8 %, and 46.6% in the PRP, HA, and control groups, respectively. The progression of osseous abnormalities showed statistically significant difference between PRP and HA groups, and between PRP and control groups.

CONCLUSION: Our findings suggested that PRP is not superior to HA in clinical parameters, but PRP injection into TMJ is more effective than HA or arthrocentesis regarding radiological recovery of osseous structures

Keywords : cbct, platelet rich plasma, hyaluronic acid, temporomandibular joint osteoarthritis

Comparative Cinical and CBCT Evaluation of Intra-articular PRP and Corticosteroid Injections for the TMJ-OA Treatment

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OBJECTIVE: The aim of this prospective study was to make a long-term assessment whether the intra-articular PRP injection into the temporomandibular joints with osteoarthritis helps to minimize the clinical symptoms, and to assess how these results compared with corticosteroid injections.

METHODS: 57 TMJ joints with osteoarthritis of 38 adult patients, diagnosed according to the Research Diagnostic Criteria for Temporomandibular Disorders (RDC/TMD axis I group IIIb), were randomly divided into three groups (15 joints of 12 subjects for control group, 32 joints of 18 subjects for PRP group, and 10 joints of 8 subjects for corticosteroid group). One session arthrocentesis was used for the control group. Four session PRP injections on a monthly basis (arthrocentesis plus PRP injection in first session) were performed in the PRP group. Only one session corticosteroidinjection was performed followed arthrocentesis in the corticosteroid group. Clinical and CBCT evaluations were conducted at initially and at 12 months follow-up after the last sessions in all groups.

RESULTS: Masticatory efficiency was increased significantly more in PRP group than in other two groups. No statistically significant different change was observed between groups in other clinical parameters included joint sound, general pain complaint, interincisal opening with and without pain, and lateral and protrusive motion of mandibular jaw. But, joint sound and general pain complaint were decreased and interincisal opening was increased significantly in all groups. CBCT evaluations showed that progression of the osseous abnormalities occurred at the rate of 87.5 %, 70 % and 46.6% in the PRP, corticosteroid, and control groups, respectively. Statistically significant more progression of osseous abnormalities found in PRP group than only in control group, but insignificant progression between PRP and corticosteroid groups.

CONCLUSION: Our findings suggested that PRP is not superior to corticosteroid in radiological and all clinical parameters, except masticatory efficiency. PRP can be an alternative to corticosteroid for treatment of TMJ-OA.

Keywords : cbct, platelet rich plasma, corticosteroid, temporomandibular joint osteoarthritis

Platelet-rich Plasma for Treatment of Temporomandibular Joint Osteoarthritis: Case Report

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Temporomandibular Joint Osteoarthritis (TMJ-OA) causes not only focal degeneration of the joint cartilage but also osseous erosion, sclerosis, flattening, and, in some cases, osteophyte formation at the joint margins. Patients with TMJ-OA always complain from jaw pain during mandibular movements, including maximum voluntary or assisted mouth and/or lateral excursions, and crepitus sounds. This case report shows radiological and clinical outcomes of temporomandibular osteoarthritis treated with arthrocentesis plus platelet-rich plasma (PRP). In this case, TMJ-OA treated with initial arthrocentesis plus PRP injection and then four consecutive PRP injections. 12 months after the last PRP injection, clinical complaints of the patient were ceased and condylar degenerations recovered. This case report showed that application of autologous PRP may be an effective and safe method for treatment of TMJ osteoarthritis

Keywords : temporomandibular joint osteoarthritis, platelet-rich plasma, arthrocentesis

Removal of Lower Third Molar Tooth Displaced To Sublingual Space During Iatrogenic Extraction

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Introduction

Third molar teeth can be easily displaced to neighboring spaces such as sublingual, submandibular, pterygomandibular and other cervical spaces. These teeth might not cause any complications but the practitioner should be aware that a foreign body reaction can occur.

Case

Report

In this case our patient was a 27 year old male who suffered from constant swelling, pain and trismus following third molar extraction after one month. The panoramic radiography revealed a decayed third molar close to the basis of the mandibula. CT images helped us to find the exact location of the tooth. Considering that intraoral surgical approach might be insufficient, the patient underwent general anesthesia for extraoral approach. Following operation and prescribed antibiotics and pain killers, on the tenth day, our patient regained mouth opening and showed no sign of pain or swelling. The patient was called for one month and two months follow-up appointments.

Discussion

During lower third molar extraction, due to lack of the dentist experience and applying extreme force towards posterior and lingually, might cause displacement of the tooth below mylohyoid muscle to neighboring cervical spaces if the lingual wall is thinner than usual. To avoid this complication sufficient radiological and clinical evaluation should be made before extraction. Open surgical procedure, using lingual retractors and manipulating the instruments gently is necessary to minimize the risk of this complicated situation. Nevertheless if the tooth is displaced, during the removal procedure, especially at intraoral approach, the practitioner should keep in mind that in lingual space, there is lingual nerve, inferior alveolar nerve and blood vessels. All these mentioned above might cause even worse complications such as hemorrhage, parasthesia or anesthesia.

Keywords : third molar, tooth extraction

Clinical and Radiological Efficiency of PRP during Sinus Augmentation Applications with Graft Substitute β -TCP

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OBJECTIVE: Maxillary sinus floor augmentation through inserting bone graft material on the sinus floor has been used for increasing the alveolar bone height in place of dental implants in this region. The aim of this study is to compare clinical and radiological outcomes between β -tricalcium phosphate (β - TCP) plus platelet rich plasma (PRP) and β - TCP alone.

METHODS: Eighteen patients, aged between 22-51 years old, in need of maxillary sinus augmentation were randomly assigned to two different groups with equal numbers. Bone graft substitute β - tricalcium phosphate was used in the control group, while bone graft mixture of β - tricalcium phosphate + PRP in the study group. Radiological images were obtained after sinus augmentation and following 6 months, and the data was analyzed.

RESULTS: After sinus augmentation, vertical height of bone grafts were measured 12.48 and 14.77 mm in the control and study groups, respectively. Approximately 1-1.5 mm of bone graft resorption was observed in the groups after healing period 6-month.

CONCLUSION: The results of the present study revealed that adding platelet rich plasma into β - tricalcium phosphate graft substitute do not provided higher vertical alveolar height compared to β -tricalcium phosphate graft substitute alone. However, both graft substitutes provided adequate vertical alveolar height for safety implant placement.

Keywords : β -tricalcium phosphate, platelet rich plasma, sinus augmentation, cbct

Foreign Bodies in Upper Lip Detected 12 Years After Car Accident

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Introduction:

The discovery of foreign bodies in maxillofacial region due to trauma is commonly reported in the literature. On the other hand; one-third of all foreign body cases are over-looked during initial clinically and radiographic examination. Foreign bodies in maxillofacial region caused by traffic accidents, other trauma types or broken surgical instruments were left behind. Some complications can occur such as infections, peripheral nerve damages, pseudoaneurysms and sialovitis.

Case report:

A 40 year- old male patient was referred for routine dental examination. At the initial examination, the patient was free of any symptoms but he had periodontal disease, caries and teeth loss. In panoramic radiography, some radiopaque structures were detected in right maxillary incisors region. The CBCT image showed three homogeneous, radiopaque, cubic structures in vestibular sulcus. Foreign bodies buried in soft tissue. Upon further investigation, the patient reported having been involved in a car accident 12 years prior during he had been thrown through the windshield.

Exploratory surgery of associated area under local anesthesia revealed that the three structures were shards of glass, most likely remnants from the windshield. All three glass particles were removed and the wounds were closed with interrupted sutures.

Discussion:

The main etiologic factors for impacted foreign bodies in maxillofacial region are accidents and physical aggressions. A wooden rod is the most common reported foreign body case. Traffic accidents are among the major causes of glass foreign bodies found in the head and neck region.

Keywords : foreign body, upper lip

Histomorphometric Evaluation of Platelet Rich Plasma during Sinus Augmentation Applications with Graft substitute β -TCP

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OBJECTIVE: The posterior maxillary region often provides a limited bone volume for placement of dental implants. Maxillary sinus floor augmentation through inserting bone graft material on the sinus floor has been used for increasing the alveolar bone height in place of dental implants in this region. The aim of this study is to evaluate histomorphometric efficiency of platelet rich plasma containing intense autologous growth factors, combined with bone graft substitute beta-tricalcium phosphate (β -TCP).

METHODS: Eighteen patients, aged between 22-51 years old, in need of maxillary sinus augmentation were randomly assigned to two different groups with equal numbers. Bone graft substitute β - tricalcium phosphate was used in the control group, while bone graft mixture of β - tricalcium phosphate + platelet rich plasma in the study group. After 6 months of sinus augmentation, radiological images and bone graft biopsies harvested during implant placement were analyzed.

RESULTS: Histomorphometric evaluations showed that there is no statistically significant differences between groups in all parameters including mineralized versus demineralized bone areas and counts of osteoblasts, osteoclast, osteocytes, osteoprogenitor cells, and capillary vessels, except inflammatory cell ratio, which is greater in the study group. However, more intense mesenchymal stem cells were also observed in platelet rich plasma added group.

CONCLUSION: The results of the present study revealed that platelet rich plasma do not provide better bone regeneration and bone formation. However, more intense stem cells observed in the platelet rich plasma added group may provide promising better bone formation outcomes in this group.

Keywords : platelet rich plasma, beta-tricalcium phosphate, sinus augmentatipon, histomorphometry

Osteitis Fibrosa Cystica: A Case Report

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Introduction:

PTH has a main role in bone formation. Primary hyperparathyroidism (PHPT) is a generalized disorder of calcium, phosphate, and bone metabolism due to excessive secretion of PTH. The main cause of PHPT is adenoma in about 80% cases. Hypercalcemia and hypophosphatemia are the most common presentation in laboratory test.

The brown tumor or osteitis fibrosa cystica is a benign bone lesion that caused by hyperparathyroidism (HPT). Pelvis, ribs, clavicle, mandible and the extremities are most commonly affected bones in brown tumor, whereas maxillary involvement is rare (0.1%).

Case Report:

A 29-year-old man was referred to our clinic with the major complaint of swelling in maxilla and mandibula region which initiated six months ago and gradually increased in size. He presented that the distance between the teeth increased gradually . The patient's medical history revealed that he had end-stage renal disease (ESRD) for about ten years. He was on dialysis every other day for the past ten years. On oral examination, displaced teeth without normal alignment was seen, teeth showed lower degree mobility.

Discussion:

The brown tumor is a bone lesion that is caused by osteoclast activity in HPT condition. Pelvis, ribs, clavicle, mandible and the extremities are most commonly affected bones in brown tumor, whereas involvement of the maxilla is considered rare. Periapical radiographs reveal loss of lamina dura in 10% of patients with HPT. The loss may be either complete or partial around the particular tooth.

Keywords : osteitis fibrosa cystica, hyperparathyroidism

Clinical and Radiological Efficiency of PRF during Sinus Augmentation Applications with Graft Substitute β -TCP

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OBJECTIVE: Maxillary sinus floor augmentation through inserting bone graft material on the sinus floor has been used for increasing the alveolar bone height in place of dental implants in this region. The aim of this study is to compare clinical outcomes and alveolar bone height changes between β -tricalcium phosphate (β - TCP) plus platelet rich fibrin (PRF) and β - TCP alone.

METHODS: Seventeen patients, aged between 20-50 years old, needing maxillary sinus augmentation were randomly assigned to two different groups: 8 subjects in study group (β -TCP plus PRF), and 9 subjects in control group (β -TCP alone). Radiological images were obtained after sinus augmentation and following 6 months, and the data was analyzed.

RESULTS: After sinus augmentation, vertical height of bone grafts were measured 12.48 and 14.21 mm in the control and study groups, respectively. After a healing period 6-month, statistically significant greater bone graft resorption was observed in the study group when compared to control group (0.89 and 2.35 mm in the control and study groups, respectively).

CONCLUSION: Both graft substitutes provided adequate vertical alveolar height for safety implant placement. However, adding platelet rich fibrin into β - tricalcium phosphate graft substitute resulted in greater vertical alveolar bone height reduction during 6 months follow-up when compared with β -tricalcium phosphate graft substitute alone.

Keywords : platelet rich fibrin, beta-tricalcium phosphate, sinus augmentatipon, cbct

EVALUATION OF EFFECT OF DIFFERENT IMPLANTS' SURFACE PROPERTIES ON THE STABILITY WITH RESONANCE FREQUENCY ANALYSIS

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Introduction: Dental implant surface technology has made a big progress with the aim of achieving faster osseointegration on their surfaces and improving the expected outcomes. Recently various attempts have been made to modify the surface of titanium in order to make it bioactive, but without the use of coating of other bioactive material. The most successful methods of titanium bioactivation are e.g. alkali or fluoride treatment. It was found that the combination of treatments modifying roughness on all scales and those modifying reactivity (bioactivity) could result in an optimal implant surface with outstanding ability of quick and reliable osseointegration. Knowledge about the importance of nanostructures in early bone healing and osseointegration is limited.

Aim: The aim of this study was to investigate if titanium bioactivation enhance early bone healing on straight shaped dental implants and to evaluate how long times to be shortened treatments.

Material and methods: A total of 45 straight shaped, self-tapping, commercially pure titanium dental implants, divided into a test group (implants with an alkali-modified surface or biosurface) and a control group (implants with sand-blasted surface) were inserted in the mandibles of 14 patients. A total of 45 implants which had the same diameter and length, were planned to use for this study. Resonance frequency analysis method was used to measure the implant stability quotient (ISQ) 0, 2, 6 and 12 weeks after the implantation.

Results: The results from the resonance frequency analysis showed a tendency for higher values for the implants with biosurface immediately after the implantation. But the high value showed fast/speedy decrease for the implant stability quotient 2 and 6 weeks after the implantation and 3 months later both groups had the same ISQ. Although the result of resonance frequency analysis indicated highly primer stability, over time in the alkali-treated surface implant group there was no effect of seconder stability. Although

immediately after the implantation the statistical significance were exist ($p < 0.05$), 3 months later the differences did not reach statistical significance($p > 0.05$).

Conclusions: According to the results of our study, biosurface implants are more advantageous compared to sand-blasted surface implants for immediate loading. There are need new comparative and long-term follow-up studies with alkali-treated surface implants .

Keywords : dental implant, resonance frequency analysis, biosurface

Histomorphometric Evaluation of Platelet Rich Fibrin during Sinus Augmentation Applications with Graft substitute β -TCP

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OBJECTIVE: The aim of this study is to test histomorphometric efficiency of platelet rich fibrin combined with bone graft substitute beta-tricalcium phosphate.

METHODS: Seventeen patients, aged between 20-50 years old, in need of maxillary sinus augmentation were randomly assigned to two different groups. Bone graft substitute β - tricalcium phosphate was used in the control group (9 subjects), while bone graft mixture of β - tricalcium phosphate + PRF in the study group (8 subjects). After 6 months of sinus augmentation, bone graft biopsies harvested during implant placement were analyzed.

RESULTS: No statistically significant differences were observed between groups regarding mineralized and demineralized bone areas, and osteoblast, osteoclast, osteocyte, and capillary vessel counts. Osteoprogenitor cell counts are significantly lower and inflammatory cell ratio is greater in the study group when compared with control group.

CONCLUSION: PRF does not provide better bone regeneration and bone formation when added β -tricalcium phosphate graft substitute.

Keywords : platelet rich fibrin, beta-tricalcium phosphate, sinus augmentatipon, histomorphometry

Keratocystic Odontogenic Tumor : A Treatment Dilemma About Recurrence And Pathologic Fracture

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Objective : The aim of this case report is to present a patient with keratocystic odontogenic tumor (KCOT) in terms of treatment modalities and overcoming the complications such as pathologic fracture and recurrence.

Method : A 75 year old male patient was referred to our clinic by a dentist due to a radiolucent lesion on the left mandible that was noticed during a routine radiological assessment. The patient was asymptomatic but a slight swelling on the left lower cheek. A panoramic radiograph and CBCT showed a radiolucency extending from corpus to the subcondylar area. A fine needle aspiration biopsy predicted a prediagnosis of KCOT. Subsequently, the lesion was enucleated and curetted through a trans-oral approach under general anesthesia. Buccal cortical bone was seen substantially strong intraoperatively. For this reason, reinforcement of the mandible by a titanium plate wasn't considered. Not to use his partial denture and a soft diet were recommended to the patient at least for six months. Histopathologic evaluation of the lesion revealed the diagnosis of KCOT. Early postoperative period was uneventful but, the patient came back with pain and swelling on the operation site after 3 weeks. A panoramic radiograph revealed the fracture of left posterior corpus. We found out that despite all the warnings about soft diet, he had been using his denture and the fracture occurred in the course of dinner. The osteosynthesis was achieved with a single titanium reconstruction plate. Subsequently the patient followed up with every 6 months' period of time. Orthophantomogram of the 30th months' control showed recurrent lesions in three different areas. The patient reoperated under general anesthesia and the recurrent lesions was curetted more deeply with sharp curettes and rotary burs that time. The patient continues with the follow up.

Results : The general approach to treating KCOTs is enucleation and curettage. The alternative therapies of marsupialization and resection are also valid but have specific limited indications. The two most common reasons for recurrence are failure to remove all of the original cyst lining within bone and new primary cyst formations from additional activated rests or oral basal epithelium. Therefore, the key to reducing recurrence is wide-access enucleation and curettage for all KCOTs and the excision of overly keratinized ridge mucosa for those of primordial origin.

Conclusion: Because recurrence is the major concern in KCOT treatment, specific enucleation and curettage procedures must be followed to minimize the recurrence potential. Another concern about extensive KCOTs is pathologic fracture. As it is seen in this case, if there is even just a bit risk of pathologic fracture, the mandible should be strengthened by plates or other reconstruction alternatives. In this manner, patient-related risk factors should be minimized.

Keywords : keratocyst, pathologic fracture, recurrence, plate

Case Report: Decompression of a Dentigerous Cyst In a Child

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Objective: Dentigerous cysts are the most common odontogenic cysts of the jaws and the treatment of these cysts range from decompression or marsupialization to enucleation of the lesion. In children it is important to preserve the permanent teeth when treating cysts.

Method: In this case report, 10 year old male patient is referred to our clinic for routine oral examination. A large swelling in left maxilla and a radiolucent lesion involving with permanent canine and premolars was seen in radiographic examination. Biopsy was performed and the result of the histopathological examination was dentigerous cyst. The treatment of the cyst was decided as a decompression of the lesion to preserve the permanent teeth. An obturator was prepared to maintain the fenestration for decompression and it was also used as space maintainer. Patient was instructed to irrigate the cystic cavity several times a day. After one year follow up period, first and second premolar tooth erupted uneventfully.

Conclusion: As a conclusion, decompression has beneficial effects while treating the cystic lesions in children.

Keywords : child, decompression, dentigerous, cyst

Comparison of the antinociceptive effect of dual FAAH/MAGL inhibitor and cannabinoid agonist in orofacial formalin test

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Objective: Orofacial pain disorders are endemic in the general population and their pharmacological treatment is not adequately resolved. In this study, we aimed to research for the first time comparative effects of FAAH/MAGL inhibitor and cannabinoids produce analgesic in the orofacial formalin experimental model of pain in rats that their mimics typical human orofacial pain.

Methods: We examined analgesic profile of the dual FAAH/MAGL inhibitor JZL195 in orofacial formalin test comparable to exocannabinoid CP55-940. Male Sprague-Dawley rats received an injection of 50µL of 2.5% subcutaneous formalin injection one visceral pad and the time spent rubbing the face was measured at 3-min intervals for 45 min. The analgesic response of JZL195 was observed at doses of 5-10-20 mg/kg, i.p. administered 180 min. prior to formalin injection these doses produce a dose dependent orofacial pain compared inhibition to CP55-940 (0,04-0,1-0,2 mg/kg, i.p.). Formalin induced a marked biphasic pain (First phase: 0-3 min., Second Phase 12-30 min.)
Results: Dual FAAH/MAGL inhibitor produce profound analgesic effect in comparable to exocannabinoid, CP 55-940. We observed that different doses of dual FAAH/MAGL inhibitors produce robust and dose dependent analgesic effect in orofacial pain imitating inflammatory visceral pain. Principally, dual inhibitors attenuated second phase of face rubbing when injected systemically.

Conclusions: These findings suggest that dual inhibitors have important relieving role for dental pain in orofacial pain formalin test. Dual inhibitors may be alternative therapeutics for the orofacial disorders pain remain to be clarified in further clinical studies.

Keywords : orofacial pain; formalin; faah/magl inhibitor; exocannabinoid

Atypical Facial Pain Due to Ectopic Tooth in Maxillary Antrum: A Case Report

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Although ectopic tooth most of the time symptom free, it is noted that sometimes may cause adjoining areal pain, tooth sensitivity or even atypical facial pain. It has been argued in the otolaryngology literature that the differentiation between typical (headache) and atypical (ear fullness, facial fullness and nasal congestion) facial pain is a continuing challenge to overcome. This paper reports a patient who has long suffered from diffuse, spontaneous moderate pain in the left maxillary area. A 43-year-old female patient referred to our unit from otolaryngology department with the working diagnosis of ectopic tooth in the left maxillary antrum whose chief complaint was chronic left facial pain. A panoramic and CT evaluation revealed an ectopic left molar tooth in left maxillary sinus. The ectopic tooth in maxillary sinus was removed under general anesthesia using modified lateral window technique. Postoperative period was uneventful. At the 3-month recall appointment patient denied any facial pain. In this report differential diagnosis, diagnostic approaches and briefly treatment will be outlined.

Keywords : atypical pain, maxillary antrum, lateral window

A Case of Severe Retro-Orbital Abscess Formation Due to Bisphosphonate-Related Osteonecrosis of Jaw

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Bisphosphonate-Related Osteonecrosis of the Jaw (BRONJ) is a recently presented disorder with necrosis of jaws after antiresorptive or antiangiogenic medicine use. Antiresorptive medications are bisphosphonates (BPs). IV forms of BPs are commonly used to relieve malignancy-related metabolic conditions in spite of the controversies about the potential for increasing the survival rates of the oncologic disorders. Oral forms of BPs can be used for the treatment of osteoporosis and osteopenia. After some usage in the market bisphosphonate related jaw necrosis were published in the literature at the beginning of 2000s, the risk of jaw necrosis related to BPs is declared by the manufacturer and FDA in 2004 and 2005, respectively. Prevalence of MRONJ was reported between 0.00038% and 0.1% with oral BP therapy. A 71-year-old female patient with a complicated stage III BRONJ is presented in this report. The patient was admitted with a radiologically evident necrosis of the mandible body extending to the inferior border intraoral exposure of the bony segment for more than one year, soft tissue abscess around mandible extending zygomatic region and existence of retro-orbital abscess. There was a 9-year history of oral BP treatment prior to the symptoms. The patient was operated for abscess drainage, necrotic bony segment debridement and coverage of the intraoral bony exposure site. The patient became infection and pain free after the operation. The patient was taken under follow-up for a possible increase of bone necrosis. Reconstruction with free vascularized fibula graft was planned in the future if the bone necrosis increase or pathologic fracture of mandible occurs.

Keywords : bisphosphonates, jaw necrosis, bronj, mronj

A Giant Bilateral Idiopathic Fibrous Hyperplasia of Palate: A Case Report

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Fibrous hyperplasia is considered one of the most common benign soft tissue growths in the oral cavity. These lesions have a predilection for females and occur in patients older than 30 years. Chronic irritation or trauma is frequently identified as the contributing agent. In this study an unusually big fibrous hyperplasia of palatal mucosa and the rehabilitation of the patient is reported. A 36-year-old otherwise healthy male patient was referred to our institution for evaluation. Medical and social history was noncontributory except tobacco smoking. Clinical examination showed deep palate, narrow and V shaped maxilla, septal deviation and poor oral hygiene. Under local anesthesia large fibrotic mass was excised and hemorrhage was controlled by electrocautery. Surgical field was left for secondary intention healing. Perioperative and postoperative healing was uneventful. This was an unusually large fibrotic mass with no apparent cause and to our best knowledge there is no other case in the English language literature.

Keywords : fibrous hyperplasia, surgery, palate

THE USE OF LASER IN THE AUGMENTATIVE PROCEDURE OF THE MAXILLARY ALVEOLAR BONE

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Objective: The aim of the presentation was to describe GBR procedure using by Er:YAG laser system for the patient who missed maxillary canine tooth with supporting buccal alveolar bone. We presented the benefits of laser as decortication and deep disinfection ability.

Method: A 45 years old female patient missed the maxillary canine tooth with supporting buccal bone. The de-epithelization and deep disinfection of the bone defect was performed by Er:YAG (2940 nm) laser. After achieving an optimum acceptor side, the defect was decorticated with Er:YAG (2940 nm) laser irradiation. The extraction socket was filled with xenograft and graft materials were stabilized with collagen membrane. Free connective tissue graft is placed over collagen membrane to gain additional soft tissue for future peri-implant sufficient soft tissue. After 6 months bone healing period, the implant is placed through the augmented side.

Result: There was no complication in the post op 6 months follow up period. Both bone and mucosal healing was perfect.

Conclusion: From a clinical point of view, surgery with Er:YAG laser offers a very effective and safe treatment choice in either cystic or in infected lesions of the oral cavity. It is important for the professional to understand the physical characteristics of the different laser wavelengths and their interaction with biological tissues to assure that they are used in a safe procedure, and that the benefits of this technology can be provided in the augmentative surgical procedures.

Keywords : laser, oral surgery, augmentation

Removal of Broken Dental Implant Fixture: A Case Report

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Dental implants represent a growing body of routine treatment option for partially or full edentulous patients. A survival and success rate for implant treatment has been documented within 90-96%. Even the implant treatment is not free from complications. These complications related either with biologic or technical reasons. In the literature a number of reasons, which require removal of dental implants, has been defined. And a number of techniques have also been described to remove non-mobile dental implants in the literature. However, the removal of non-mobile implant will inevitably affect the male patient was referred to our institution for removal of the broken dental implant fixture by general dental practitioner. Patient's overall general health was good. Clinical and radiological examination revealed a broken dental implant fixture. The counter-ratched device was utilized to removal of non-mobile half of the implant with no success. From that moment on a best-fit trephine bur was utilized to remove the broken fixture piece and then the broken piece was successfully removed with minimal bone loss. The removal of implants or implant parts is becoming a growing practice in dentistry as the number of patients receiving implants increases. As a result dental practitioner who placing dental implants should aware of a number of techniques to remove dental implants if the complication arises. The preservation of surrounding bone is utmost importance when utilizing implant removal.

Keywords : dental implant, implant removal, trephine bur, broken implant fixture

Assessment of the Changes of Social Impact Associated with Orthognathic Surgery

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There is currently very little data relating to the social perceptions of the people in relation to changes in facial appearance brought about when an individual undergoes orthognathic treatment. This study aimed to investigate the social impact of combined orthodontic-orthognathic surgical correction for class III malocclusion subjects.

A cross sectional study comparing perceptions of facial apperance before and after orthognathic correction of Class III malocclusion using an analytical questionnaire. Sixty undergraduate students were shown photographs a vignette of six subjects (three male and three female) with four photographs each: frontal at rest, frontal on smiling, ¾ profile and profile pre- and post-orthognathic correction. The observer was then asked to rate the subject in relation to 4 different outcomes: Social competence; intellectual ability; psycological adjustment and attractiveness. A mixed model analysis of variance (ANOVA) was calculated to determine the effect of each variable.

Statistically significant differences were found in ratings of the same face before and after treatment. The results indicated a statistically significant difference in all areas examined. The six patients were perceived to be more sociable, attractive, intelligent psycologically adjusted following orthognathic treatment. There was evidence of variation between the individual faces but not for gender.

After orthognathic treatment in a Caucasian Class III malocclusion patient, individuals were rated by young adults as better adjusted both psycologically and socially, more likely to be successful and more attractive.

Keywords : class III, malocclusion, orthognathic surgery

3D Assessment of the Effect of Orthognathic Surgery on the Nasal Cavity, Maxillary Sinus and Upper Nasopharynx

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Orthognathic surgery has been shown to have an effect on the upper airway space. The effect of the maxillary osteotomies extends to include the maxillary sinus and the nasal cavity. This effect can be measured using two dimensional modalities as the conventional cephalometric radiographs or three dimensionally. 3D images can provide exact data for the volume information. The purpose of this presentation was to assess the three dimensional volumetric changes in the nasal cavity, maxillary sinus and the upper nasopharyngeal airway following LeFort I maxillary osteotomy.

A 26 year old female patient who had skeletal Class III malocclusion due to maxillary retrusion was admitted to our clinic for the treatment. Following a presurgical orthodontic treatment, 6 mm Le Fort I maxillary advancement was applied on the sagittal plane without any other associated mandibular surgery. The preoperative and 6 months postoperative CBCT images were taken and measured for the volumetric assessment.

After the orthodontic and orthognathic treatment patient's Class III malocclusion and concave profile was corrected. Volume of upper nasopharyngeal airway space increased from 12198 mm³ to 14770 mm³. Volume of right maxillary sinus decreased from 6648 mm³ to 6148 mm³ left maxillary sinus decreased from 7816 mm³ to 7191 mm³. Volume of nasal cavity decreased from 10182 mm³ to 9319 mm³

CBCT scanning is a beneficial imaging modality to analyse and measure the effect of orthognathic surgery on the airway dimensions. The volume of the upper nasopharyngeal airway space was increased following LeFort I osteotomy.

Keywords : orthognathic surgery, cbct, 3d, upper nasopharynx, airway dimension

How long does take combined orthodontic and orthognathic treatment

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Orthognathic surgery has been traditionally used to correct functional and esthetic problems due to underlying skeletal deformities and requires multi-disciplinary management. Patients who are provided with accurate information tend to be satisfied with their overall treatment. Knowledge of treatment duration is important factor for the patient compliance. The aim of this study was to determine duration of pre and post-surgical orthodontic treatment and overall treatment time in patient requiring combined orthodontic and orthognathic treatment and to investigate factors that may affect the duration of treatment , such as type of surgery extractions, gender and age.

Retrospective audit of patients' records who had received combined orthodontic treatment and orthognathic surgery at the GMMA Haydarpasa Teaching Hospital, between the years of 2010 and 2015 was investigated. The following data was collected for each patient: age, gender, skeletal pattern, vertical proportions, extraction or non-extraction treatment, type of surgery, orthodontic bond up (T1), date of surgery (T2) and debond (T3).

A total of 48 patients who had skeletal malocclusion of 64.5% Class III, 27% Class II Div1 and 8,5% Class II Div2 was evaluated for this study. Bimaxillary surgery was the most applied surgical procedures (45%). Mean duration of pre-surgical orthodontic treatment (T2-T1) was 21 months; post-surgical orthodontic treatment (T3-T2) was 8 months. Overall treatment duration was longer for bimaxillary surgery and increased vertical proportions. Pre-surgical orthodontic treatment took on average 4 months longer in male patients.

In conclusion, total treatment time would take approximately 3 years but it may be more prudent to inform patients that some cases can take up more time due to complex nature of orthognathic treatment.

Keywords : orthognathic surgery, class iii malocclusion, class ii malocclusion, orthodontic treatment

3D Soft Tissue Prediction Following Orthognathic Surgery

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Orthognathic, surgery is performed to correct a wide range of minor and major skeletal and dental irregularities, including the misalignment of jaws and teeth. Surgery can improve chewing, speaking and breathing. While orthognathic surgery is performed to correct functional problems the patient's appearance may be dramatically enhanced as a result of their surgery. Patients primarily seek correction of their dentofacial deformity to address aesthetic, functional and psychosocial concerns and accurate diagnosis and treatment planning is essential for optimal functional and aesthetic results. With the three dimensional surgical planning software can be made virtual prediction of facial appearance following surgery.

The aim of this presentation to determine the accuracy and validity of three-dimensional surgical planning software in predicting sof tissue morphology following LeFort I maxillary advancement for correction of Class III malocclusion.

A 21-year old male patient who had maxillary hypoplasia and retrognathy referred to our clinic for treatment. His main complaints were unaesthetic appearance and difficulties during speech, and chewing. Computed tomography images were obtained by using Philips MX 8000 IDT Multislice CT System with a section thickness of 1 mm. Scans had been taken preoperatively and six months following surgery to ensure the effect of postoperative facial swelling would be minimal.

The mean difference between the soft tissue prediction simulated by the software and the post-surgical soft tissue morphology of the subject is not different to 3 mm at different anatomically defined regions of the face.

Three-dimensional surgical planning software produces clinically satisfactory soft tissue predictions following LeFort I advancement osteotomy to within an accuracy of 3 mm.

Keywords : orthognathic surgery, soft tissue prediction, lefort I advancement, class III malocclusion

USE OF PEDICLED BUCCAL FAT PAD IN THE CLOSURE OF ORO-ANTRAL FISTULA: A CASE REPORT

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An oroantral fistula (OAF) may develop as a complication of dental extractions, as a result of infection, or as sequelae of radiation therapy, trauma, and removal of maxillary cysts or tumours. The commonest aetiology of OAF is as a complication following extraction of maxillary posterior teeth. If the patient has a healthy sinus, an OAF less than 4 to 5 mm diameter will most likely heal spontaneously. In larger perforations surgery becomes the choice of treatment for prevention of chronic and irreversible changes in the maxillary sinus.

Treatment modalities to repair OAFs following any cause include local and distant soft tissue flaps, autogenous bone grafts, allogeneous materials, xenografts, synthetic metals and other techniques. Regardless of the technique, two principles must be observed. First, the sinus must be rendered free of infection with adequate drainage and the use of appropriate sinus antibiotics in addition to topical or systemic decongestants. Second, tension free closure of a broad base, well vascularized soft tissue flap. Some traditional methods used in the repair of OAF include buccal advancement flaps, palatal rotation and palatal transposition flaps, tongue flaps, and nasolabial flaps. Recently, because of various advantages, buccal fat pad (BFP) is increasingly being employed in the repair of OAF and other oral defects world-wide. We report the case of a 65 year old man with a history of fear of dentist, tooth extraction in the maxilla performed by himself and the subsequent closure of an oroantral fistula with a buccal fat pad.

Keywords : maxillary sinus, oroantral fistula, pedicled buccal fat pad

BISPHOSPHONATE RELATED OSTEONECROSIS OF THE JAW: A CASE REPORT

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Bisphosphonate-related osteonecrosis of the jaw (BRONJ) was first reported in 2003 and has since become an acknowledged complication of bisphosphonate exposure. The risk is greatest with the intravenous nitrogen-containing formulations used primarily in the management of skeletal-related malignancy, including multiple myeloma and metastatic breast and prostate cancers. Most studies suggest that the prevalence of BRONJ related to intravenous bisphosphonates is in the range of 1% to 5%, although this depends on treatment duration and bisphosphonate potency. The inhibition of bone resorption caused by osteoclasts decreased function is the main pharmacological effect of bisphosphonates and they are also thought to have antiangiogenic effects. Due to their effects bone pain is reduced, skeletal events are delayed. Despite the fact that they improve the quality of patients' life, osteonecrosis of the jaw is associated with the use of bisphosphonates. We report the case of a 53 year old woman with a history of used bisphosphonate (Zoledronic acid), tooth extraction in the mandibula, and the subsequent nonhealing lesions involving exposed bone extraction side of mandibula. After we performed decortication, the patient had tooth clenching and following mandibular fracture. The patient's fractured left mandibular area scanned with cone beam computerized tomography, and obtained 3D model and adapted reconstruction plaque on this model. We resected left mandibular fractured area and performed reconstruction plaque. In addition, the patient had dysphagia, therefore we performed laryngoplasty with hyaluronic acid enjection.

Keywords : bisphosphonate, osteonecrosis, reconstruction

Incidental Discovery of Periapical cemento-osseous dysplasia: a case report

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Periapical cemento-osseous dysplasia (PCOD) is a subtype of cemento-osseous dysplasia. PCOD occurs most commonly in the anterior mandible of patients older than 30 years of age. There is a significant tendency towards female patients. PCOD is an asymptomatic disease in which no genetic cause has been identified. The involved teeth are vital. These lesions are found incidentally on routine dental radiography.

A 43-years-old man was referred to Marmara University Faculty of Dentistry for dental implant consultation. The patient was ASA I without any systemic disease. He had no history of trauma to the mandible. In the extra-oral examination, there was no lesion in relation with the disease. Intra-oral examination revealed healthy oral mucosa with the absence of soft tissue expansion or any signs of infection. Periodontal tissues were healthy. All of the teeth were asymptomatic, with no pain or tenderness on percussion or palpation. The involved teeth 43,42,41,31,32,33 were vital in an electric stimulation test. The diagnosis was determined by radiographic examination.

Dental volumetric tomography images of the mandible revealed a sclerotic lesion at the apices of teeth 43,42,41,31,32,33 approximately 5 × 6 mm in size with a surrounding mildly expansile, lytic area measuring 11 × 12mm in total.

Although the term dysplasia represents a cancer potential, cemento-osseous dysplasia is a completely benign lesion that is mostly reactive. PCOD is the focal version of the disease which is localized to one area.

The best tools to differentiate PCOD from a periapical pathosis originating from a tooth are pulp vitality tests. However, these important tests are unavailable if the tooth has been endodontically treated. The clinician then has to rely on patient history, signs and symptoms.

This case emphasizes the importance of patient history, quality radiographs and accurate pulp testing for arriving at a correct diagnosis and the important role of follow-up examinations to confirm the diagnosis. If the initial presenting lesion had been misdiagnosed and root canal treatment performed, needless retreatment, apical surgery or even extraction may have followed as the 'endodontic' lesion may not have healed 'as expected'. The present case was considered as no treatment with only periodic radiographic follow up.

Keywords : periapical cemento-osseous dysplasia,, apical surgery,extraction,dental volumetric tomography

Free gingival graft technique for the treatment of recurrent peripheral ossifying fibroma: A new viewpoint

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Objective

To evaluate the effectiveness of free gingival graft on the prevention of recurrence of peripheral ossifying fibroma.

Methods

A patient with a recurrent peripheral ossifying fibroma was operated under local anesthesia with free gingival graft transfer on the surgical site. After 10 days, sutures were removed and complete integration of gingival graft was observed.

Results

There was no sign of recurrence at 6th. month control after surgery. Gingival tissue seemed healthy in the intraoral examination.

Conclusion

Recurrence of reactive peripheral gingival lesions is caused by residual proliferative lesional cells which are results of inadequate surgical excision or curettage. Free gingival graft procedure may be an alternative source of fresh connective tissue forming cells which may alter the cell cycle of proliferative lesional cells and form normal gingival tissue.

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Keywords : ossifying fibroma ; reactive mucosal lesion ; recurrence

Evaluation Of Demographic And Clinical Data Of The Patients Treated With Dental Implants At An University Hospital

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Objectives: Dental implants have a routine clinical application in prosthodontic treatment of patients to improve the satisfaction and patient's quality of life. The aim of this retrospective study was to analyze the distribution of dental implants with regards to age and gender of patients and type of indication for the implant treatment, as well as the anatomical location (jaw and tooth).

Methods: The demographic data (age and gender), type of indication for implant treatment and anatomical location of 712 implants were recorded from dental records of 125 patients who applied to our university hospital between January 2013 and January 2014.

Results: The patient pool consists of 70 women and 55 men, with a mean age of 58.48 ± 13.56 years. No significant difference was found in relation to the gender ($p>0.05$). Approximately half of the inserted implants were placed for molar tooth loss. The 37.2% of implants were placed for distally extended edentulous space as the most seen indication. Our results revealed that anatomical locations of implants were associated with type of indication. In addition, the 52.8% of implants, as the highest percentage, were placed to posterior mandibula.

Conclusions: Within the limitations of this retrospective study, posterior tooth loss and distally extended edentulous space lead the clinicians to implant treatment.

Keywords : demographics, dental implants,retrospective study

Electromyographic Activity of Masseter and Temporal Muscles after Botulinum Toxin Treatment of Masseter Hypertrophy

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OBJECTIVE: Masseteric hypertrophy (MH) is recognized as an asymptomatic and asymmetric enlargement of one or both masseter muscles. Use of Type A botulinum toxin for treatment of masseteric hypertrophy goes back up to 1994. However, no study was conducted to investigate changes in electromyographic activity (EMG) of masseter and temporal muscles after botulinum toxin Type A treatment.

METHODS: Ten subjects with masseter hypertrophy, who underwent botulinum toxin Type A treatment, were used in this study. Bipolar electrodes were placed on the both masseter and anterior temporal muscles to record the activity at rest, during maximal clenching, and chewing hazelnuts. Three records were obtained: at baseline, at 1 month after the treatment and 8 months later. Raw EMG's were amplified, full-wave rectified, integrated, and analyzed. Amplitudes of action potentials were determined in mV. The mean amplitude of the action potential for the rest position, and the maximum values of maximal clenching and chewing were used for the statistical analyses.

RESULTS: Mean amplitude of the action potentials of the masseter and anterior temporal muscles for the rest position showed little changes during observation period. The maximum values during maximal clenching and chewing reduced significantly in masseter muscles, but increased significantly in anterior temporal muscles one month after the treatment. EMG activities of the muscles returned to baseline after 8 months follow-up.

CONCLUSION: Botulinum toxin Type A injection into masseter muscle resulted in lower electromyographic activity in this muscle, but this lowering compensated by higher EMG activity of anterior temporal muscle simultaneously.

Keywords : electromyographic activity, masseter muscle, temporal muscle, botulinum toxin type a, masseter hypertrophy.

Traumatic Hematoma of the Oral Mucosa Mimicking Minor Salivary Gland Pathology: An Emphasis to Oral Hemorrhagic Lesions

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Objective

Minor salivary gland pathologies are a range of lesions including malign and benign tumors, cystic lesions and adenomatoid hyperplasias. Traumatic submucosal hemorrhagic lesions of buccal mucosa may mimic salivary gland pathologies due to the clinical resemblance. In this study, a case of submucosal hematoma which is confused with adenomatoid hyperplasia is presented.

Methods

Fifty-nine years old male patient was referred to our clinic with a complaint of purple-blue colored swelling on his upper jaw. Intraoral examination revealed blue-colored papuler lesion on the left maxillary vestibular mucosa. A provisional diagnosis of adenomatoid hyperplasia was made and patient was scheduld for excisional biopsy.

Results

Histologic examination revealed normally distributed skeletal muscle fibers in collagenous connective tissue stroma. After 10 days postoperative period, the healing was uneventful. The final diagnosis was made as trauma originated submucosal hematoma.

Conclusions

Hemorrhagic lesions of gingiva and oral mucosa are mostly seen after surgical interventions and traumatic effects. Mainly, these lesions were readily diagnosed. However, they may sometimes be isolated if the patient is unaware of the traumatic agent or effect. In such a case, hemorrhagic submucosal lesion may resemble to minor salivary gland related pathologies. Obtaning a regular dental and medical anamnesis is crucial to avoid the clinical confusion between two lesions.

Keywords : hematoma ; adenomatoid hyperplasia ; minor salivary gland

Radicular Cyst on Palatinal Side with Bone Expansion:A Rare Case

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Radicular cysts arise from epithelial residues in the periodontal ligament as a result of low grade irritation. Radicular cysts are common inflammatory odontogenic cysts arising from epithelial residues due to perapical periodontitis following death and necrosis of pulp . The lesion arises from the proliferation of epithelial rests of Malassez induced by inflammatory cytokines and growth factors released by inflammatory cells found in chronic apical periodontitis following root canal infection and pulp necrosis. They may, however, also be found on the lateral aspects of the roots in relation to lateral accessory root canals - then called acollateral or accessory cyst. Radicular cysts are by far the most common cystic lesion in the jaw. They may be the result of trauma in which case no caries will be seen. The most commonly involved deciduous teeth are mandibular molars (67%), maxillary molars (17%) followed by anterior teeth.Radicular cysts comprise about 52-68% of all the cysts affecting the human jaw.

Case report

37-year-old female patient with no systemic disease gave history of recurrent swelling and pain. The swelling was initially small, which gradually increased to the present size. On clinical examination, diffuse hard swelling was seen over the right maxilla, which was asymptomatic. Right maxillary palatal expansion was observed during intraoral examination. Although they have not any fistula opening and palpation of this area felt the void inside in maxillar bone. Computed tomography (CT) scan was advised by a us. Buccal cortex integrity in Examined CT section was found that, while maintaining the integrity of the palatal cortical destruction. Due to the destruction of the palatal bone flap sulcus were designed palatal flap incision. The flap was achieved by removing the lesion was enucleated without spoiling the integrity of the cyst epithelium. Irregular bone contours were corrected, the flap was closed primarily.

Conclusion

Radicular cyst is an everyday disorder unearthed in the oral cavity which is asymptomatic when small and diagnosed incidentally on radiographic examination. This report highlights on the occurrence of maxillar radicular cyst, which is rare of its entity and shows the importance of radiographic examination prior to the removal of teeth. Moreover, coarse radicular cyst can lead to major rate of morbidity. Several treatment options are available for a radicular cyst such as endodontic treatment, extraction of the offending tooth, enucleation with primary closure, and marsupialization. The surgical approach to cystic lesions of the jaws is either marsupialization or enucleation. The

treatment of choice is dependent on the size and localization of the lesion, the bone integrity of the cystic wall, and its proximity to vital structures.

Keywords : cyst, palatal cyst, bone expansion

Residual Hypertrophic Sclerosis: A Rare Case with Unique Clinical Presentation

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To present a unique clinical case of osteosclerosis which shows proliferative growth capacity on the edentulous mandible.

Methods

Fiftyfour years old female patient was referred to our clinic with a complaint of ill-fitting total dentures. Intraoral examination revealed firm swelling on the posterior left mandible. Patient was unaware of the swelling and medical anamnesis was non-contributory. Radiographic examination revealed sclerotic lesion with upward extension which caused prtothesis incompatibility. Surgical trimming was planned under local anesthesia.

Results

Microscopic examination revealed lamellar compact bone trabeculae with osteocytes. A diagnosis of idiopathic osteosclerosis was made and patient was undertaken follow-up period with 3-month intervals. After 3 months, lesion seemed stabile in the radiographic examination and no recurrence was evident.

Conclusion

Sclerotic lesions of the mandible are idiopathic, asymptomatic and quiescent lesions. They tend to occur on mandible and diagnosed incidently on routine dental radiographs. Overgrowth of sclerotic lesions are unlikely to occur. In this study , the sclerotic proliferation revealed itself by disturbing the compatibility of total prosthesis.

Keywords : osteosclerosis ; hypertrophy ; condensing osteitis

Idiopathic Bone Cavities: Report Of Two Cases

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OBJECTIVE

The aim of this report is present two cases of asymptomatic radiolucent idiopathic bone cavities, Stafne's bone cavities, with advanced non-invasive radiological techniques.

METHODS

Two patients were noticed during routine dental examination in our clinic. Radiographic examination revealed radiolucent lesions with non-sclerotic borders below the mandibular canal. Cone beam computerized tomographies were taken from these patients to identify the lingual opening of the lesions. Patients' histories and radiographic analysis showed that the radiological images were Stafne's bone cavity. Surgical intervention was not planned. The patients were undertaken follow-up controls with 12-months intervals.

RESULTS

After 12-months follow-up, the bone cavities remained asymptomatic. There were no radiological and clinical changes.

CONCLUSIONS

Panoramic radiographs gives initial opinion in the diagnosis of Stafne's bone defect for experienced practitioners and might be useful for follow-up of Stafne's bone cavity cases. Clinician should be aware of suspicious radiolucent lesions of the mandible and should apply multiple imaging modalities such as CBCT in order to avoid unnecessary surgery.

Keywords : idiopathic bone cavity, stafne's bone cavity, bone cyst

Bilateral Bifid Mandibular Canals: A Case Report

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Bifid mandibular canals (BMCs) are variations of the normal anatomy, with a reported prevalence ranging from 0.08 to 65%. To avoid complication during oral surgery, it is important to diagnose and be aware of these variation by using different x-ray techniques. Mandibular canals without any anatomical variations can be identified and observed with orthopantograph which presents radiological anatomy as two dimensional image. However most anatomical variation can be recognized by using computed tomography (CT) which renders possibility of evaluation anatomical structures in three-dimensional images. Thus, BMCs can be better and clearly diagnosed by using CT, especially by cone-beam computed tomography (CBCT). The purpose of this article is to present a case report of bilateral mandibular accessory canals seen on panoramic radiograph and CBCT.

Keywords : mandibular canal, cone-beam computed tomography, anatomical variation

Florid Cemento-osseous Dysplasia: A Case Report

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Objective:Florid cemento-osseous dysplasia (FCOD) is infrequent benign lesions of the jaw. There are three subtype of FCOD that periapical (seen in the periapical region of a few teeth), florid (located in two or more quadrants) and focal (only one lesion) cemental dysplasias. The lesion is fibroosseous, multifocal and usually asymptomatic . Healthy bone has been replaced by fibrous tissue and metaplastic bone. FCOD mostly seen in black, middle aged, asian woman. The purpose of this case is to show some radiolucent or radiodens areas which is located around periradicular region may not be required surgery or endodontic treatment.

Case report:35-year-old male patient referred to our clinic for rutin control. Intraoral and extraoral examination shows no extraordinary findings. Cone beam computed tomography, panoramic and periapical radiograph indicated radiolucent lesion around the roots of the teeth. Upper right incisors, canine, first premolar,second molar, all upper left teeth and all lower teeth were associated to lesion. All of the teeth were vital and no root resorption was observed. The lesion affected all quadrants of the jaw. Biopsy was obtained from right mandibular second premolar tooth apex to support our initial diagnosis. The lesion was composed of irregular lamellar cementoid and osteoid tissue in cellular stroma. All clinic, radiographic and histopathologic findings commented together and definitive diagnosis ensured as FCOD. The patient is still under follow up.

Conclusion:FCOD must be differentiate from periapical inflammatory lesion which requires surgical treatment. FCOD is harmless for patient with long term follow up. Treatment is not indicated except for cosmetic reasons.

Keywords : fibroosseous lesion, fluorid cemento-osseous dysplasia, cone-beam computed tomography

Oral Squamous Papilloma: Report of Two Cases

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INTRODUCTION

Oral squamous papilloma is a benign proliferation of the stratified squamous epithelium, which is a papillary or verrucosexophytic mass induced by human papilloma virus (HPV). These lesions are most often benign, asymptomatic and have small progression potential. Common site predilection for the lesion is the tongue and soft palate, and may occur on any other surface of the oral cavity such as the uvula and vermillion of the lip.

OBJECTIVE

The aim of this report was to evaluate two patients with oral squamous papilloma, based on clinical and histopathologic characteristics.

METHOD

A 26 years old male patient was referred with a complaint of soft tissue mass in floor of the mouth. Clinical examination showed that oral mucosa lesion was exophytic and pedunculated. Surgical excision was done and biopsy specimen was sent for histopathological examination.

A 41 years old female patient admitted to our clinic with a complaint of tissue growth on the tip of the tongue since 2 months. The present lesion was exophytic and white-pink colored. Medical anamnesis was non-contributory. The lesion was completely excised under local anesthesia with diode laser.

RESULTS

Microscopic findings confirmed the diagnosis of oral squamous papilloma. A month later, the clinical follow-up showed the complete tissue healing. No evidence of recurrence was noted in the 12-month follow-up control.

CONCLUSIONS

Oral squamous papillomas are benign exophytic epithelial lesions, but also have a small risk of malignant transformation. Treatment modalities include laser ablation, cryotherapy, electrocautery, intralesional injections of interferon, salicylic acid application and conservative surgical excision. In the present second case, surgical excision was applied with diode laser. The laser-assisted surgery has several advantages such as

excellent hemostasis, high precision in tissue destruction, absence of sutures, wound sterilization and minimal post-operative pain and edema. Considering these advantages, the diode laser was chosen as an alternative for the removal of the squamous papilloma lesion.

Keywords : oral squamous papilloma, human papilloma virus, surgical excision, diode laser.

IMPACTED PERMANENT INCISORS ASSOCIATED WITH ERUPTED COMPOUND ODONTOMA

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Odontomas are the most common odontogenic tumours of the maxillary bones, characterised by a slow growth and benign behaviour. Most odontomes are asymptomatic and are discovered during routine radiographic investigations. Odontomes generally cause disturbances in the eruption of the teeth, most commonly delayed eruption or deflection

The aim of this study was to report a case of a erupted compound odontoma in the anterior maxilla of a 22-year-old male , which was causing the impaction of the maxillary left central incisor.

We present a rare case of an erupted odontoma in an adolescent patient who came with a complaint of bad aesthetics due to the presence of teeth like structures in the upper front teeth region.

Keywords : compound odontoma, erupted odontoma, impacted permanent teeth

TREATMENT OF SEVERE SKELETAL CLASS III MALOCCLUSION: A CASE REPORT

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A 38-year-old male patient consulted to our clinic with the complaint of his profile and eating, speaking and breathing problems. His intraoral examination revealed severe sagittal and horizontal maxillary deficiency. He had a -19 mm over-jet and a 7 mm overbite. His maxillary second, mandibular first molars and his mandibular right second molar were extracted. He also had agenesis of bilateral maxillary lateral incisors and mandibular left incisor teeth. He had no inter-digitation because of the circular cross-bite and missing posterior teeth. Extra oral examination showed a concave profile with no laterognathia. He had no TMD problems, systemic medical problems or allergies.

Bimaxillary orthognathic surgery following a fixed orthodontic treatment with 0.018" slot Roth brackets and surgically assisted maxillary expansion (SARME) was planned. Semi-rapid maxillary expansion protocol was applied with twice turns-per-day for the first fifteen days and one turn-per-day for the first month.

After thirteen months of pre-surgical orthodontic treatment, bimaxillary orthognathic surgery with 8 mm maxillary advancement, 2 mm maxillary impaction and 9 mm mandibular set-back was performed.

The post-surgical orthodontic treatment lasted four months. The patient had Angle Class I occlusion and a well facial harmony was obtained at the end of the treatment.

Keywords : orthognathic surgery, skeletal class III, sarme

Iatrogenic Causes of Foreign Bodies in the Jaw Bones

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OBJECTIVE

The aim of this present report is to describe the surgical treatment of several iatrogenic foreign bodies (amalgam dental filling material, gutta percha, endodontic rotating file) in the jaw.

METHODS

Four cases of foreign bodies; 2 cases of embedded gutta percha cones, 1 case of broken rotating file and 1 case of amalgam residue were removed with surgical approach under local anesthesia. All of the four patients were referred to our clinic with chronic complaints of fistules, local pain and swelling.

RESULTS

In control period after surgery, we followed up the healing for 12 months.

CONCLUSIONS

Foreign bodies may be embedded in the oral cavity either by traumatic injury or iatrogenically. The commonly encountered iatrogenic foreign bodies are restorative materials like amalgam, obturation materials, broken instruments, needles and impression materials. These foreign bodies may produce chronic inflammatory reaction. There is no consensus in terms of removing foreign bodies but in general, these should be removed by considering benefits of removal.

Keywords : foreign bodies ; dental amalgam ; gutta percha

Large dentigerous cyst arising from a deeply impacted- inverted third molar and complex odontoma : a rare case report

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Dentigerous cysts (follicular cysts) are the second most common developmental odontogenic cysts. They are generally associated with the crowns of impacted or unerupted permanent teeth, but they can be associated with an odontoma or developing tooth, and even deciduous teeth. Depending on the patient's age, the size of the cystic lesion, root form of associated tooth/teeth, the severity of impaction, treatment choices range from enucleation to marsupialization.

Odontomas are benign odontogenic tumours composed of different dental tissues like enamel, dentin, cementum and in some cases pulp tissue.

This report describes an unusual case of dentigerous cyst and complex odontoma. 53-year-old man with a large radiolucency and a deeply impacted third molar on the right posterior mandibular region referred to our department . Preoperative CBCT evaluation showed a radiopacity on the peripheral side of the cystic lesion and on the crown of impacted molar. Initial histopathologic examination revealed dentigerous cyst and complex odontoma. We preferred marsupialization to reduce the risk of nerve damage and pathological fracture of the mandible. After a marsupialization period of 7 months, we performed enucleation and removal of impacted third molar. The patient has been treated successfully without any complication.

Keywords : dentigerous cyst, follicular cyst, impacted third molar, complex odontoma, marsupialization, enucleation

Solitary bone cyst: in mandible: A case report

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The solitary bone cyst is an uncommon and poorly understood lesion and describes several lesions like simple bone cyst, traumatic bone cyst, idiopathic bone cavity. First described in 1929, solitary bone cysts lack an epithelial lining, typically occur during these cond decade of life, and are most frequently located in the jaw. The majority of these cysts are located in the mandibular body between the canine and the retromolar region. Clinically, the lesion is asymptomatic in the majority of cases and is often accidentally discovered on routine radiological examination usually as an unilocular radiolucent area with a "scalloping effect". The definite diagnosis of solitary bone cyst is invariably achieved at surgery. A case of solitary bone cyst occurring in the posterior region of mandible in a patient is presented.

Keywords : solitary bone cyst; mandible

Congenital Gingival Granular Cell Tumor: A Case Report

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Objective

The congenital gingival granular cell tumor (CGCT), also as known as congenital epulis, is an unusual benign oral mucosal lesion in newborns. We present this case of a CGCT in a newborn.

Case

A two-day-old female patient was admitted to the Department of Pediatric Dentistry, and an intraoral examination showed a stemmed tumor with a smooth surface located in the area of the maxillary right first primary molar.

Results

Following consultation with the oral surgery department, an operation was performed under general anesthesia to excise the tumor on the 12th postnatal day. A biopsy specimen was sent for histopathological examination.

Conclusions

CGCTs are rare benign tumors, and surgical resection is required to prevent feeding and respiration problems. Clinically, CGCTs should be distinguishable from teratomas, congenital dermoid cysts, congenital fibrosarcomas, hemangiomas, lymphangiomas, leiomyomas, rhabdomyomas, heterotopic gastrointestinal cysts, congenital cystic choristomas and congenital lipomas. *Histopathologic examination* is a critical component in the diagnostic process.

Keywords : granular cell tumor, newborn, maxilla, alveolar ridge.

Experimental study of osseointegration value of the dental implants which have longitudinal grooves and standard grooves

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Objectives: The aim of this study was to evaluate effectiveness and benefits of the dental implants which have longitudinal grooves.

Material and Methods: A total of 48 implants were placed in the pelvis of 3 sheep (16 implants/sheep). 8 implants which have longitudinal grooves were placed in right pelvis. 8 implants with standard grooves were placed in left pelvis. Animals were sacrificed at 1, 2 and 4 weeks after surgery. In each group, two implants were used for biomechanical removal torque testing and six implants for a histological assessment of the bone-to-implant contact (BIC). The data were processed and analyzed using STATA /MP11 package. Descriptive data are presented as means and standard deviations. The distributions of BIC values were investigated by using Shapiro Wilk's normality test and the comparisons were done using two-way ANOVA and post-hoc Tukey tests. Significant differences (two-tailed p) less than 0.05 were regarded as significant.

Results: After 1, 2, 4 weeks of healing, mean BIC%(63,01±16,13, 62,55±7,84, 88,35±12,69) value of implants with longitudinal grooves were higher than implants with standard grooves (34,41±14,77, 57,06±14,24, 76,44±10,57) but no statistically significant difference between groups.

Conclusion: Within the limits of this study, it can be concluded that implant with longitudinal groove has lots of benefits such as decreasing operation time, gentle implant insertion and high osseointegration value.

Keywords : bone to implant contact, dental implant, osseointegration

Combine Treatment of Mucocele

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Oral mucoceles (OMs) are the common minor (accessory) salivary gland lesion affecting the general population. An 31 years old woman was referred to our department with the chief complaint of a bluish color easily rupture little ball in the lower lip. The lesion has fluctuation on clinical examination. The history and clinical findings lead to the diagnosis of a superficial mucocele. Conventional surgical method was used to treat this lesion and also low level diode laser method was used to increase soft tissue healing.

Combine treatment method was considered successful following three months.

Keywords : mucocele, combine treatment

Conservative treatment of an odontogenic keratocyst

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The odontogenic keratocyst is an epithelial developmental cyst of the jaws, and comprises approximately 11% of all cysts of the jaws. Odontogenic keratocyst is of particular interest because of its high recurrence rate and aggressive behavior. The cysts are most often seen in the mandibular ramus and angle, and can become quite large because of its potential for significant expansion, extension into adjacent tissues, and rapid growth. Treatment modalities of odontogenic keratocyst are still controversial. It is usually resistant to the treatment, and the recurrent rate is 6-60 %.

A 25 year-old woman was accepted to our clinic. Computerized tomography and panoramic radiographs of the mandible showed giant lesion that involved most of mandibular angulus, ramus, condyle and coronoid process bilaterally and expanded extensively medial and lateral cortical edges. It was diagnosed as odontogenic keratocyst with clinically, radiologically and according to result of aspiration biopsy. Two staged surgical treatment were planned for cyst. Lesion appeared as odontogenic keratocyst according to histopathological examination. Recurrence was not detected after 2 year follow-up period.

Keywords : keratocyst, odontogenic tumor, treatment, keratocystic tumor

A Rare Localization of Epulis Fissuratum: A Case Report

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Epulis fissuratum is a hyperplasia of mucosa induced by an ill-fitting denture . It is located over the soft tissues of the vestibular sulcus caused by chronic irritation from poorly adapted dentures. Also use of denture at night, infrequent dental visits, low education, dependency are factors associated with increased prevalence rate of epulis fissuratum. It is an asymptomatic condition and usually occurs in the maxiller and mandibular vestibular location. The edge of prothesis locates deeply due to the resorption of the alveoler crest, therefore mucosal proliferation causes the lesion . Lesions typically appear as a single or multiple hyperplastic connective tissue folds, covered with stratified squamous ephitelium. The size of the lesion varies from a localized hyperplasia off less than 1 cm in size to massive lesions that involve most of the length of the vestibule. Generally, the lesions are the same with mucosa in color, erythematous surface may occur due to inflammation.

In this article a case with epulis fissuratum is presented which is rarely seen at lingual side of the mandibular alveoler crest. The lesion was totally excised under local anesthesia and primary closure was made. Pathological examination showed that the lesion consisted of fibrous tissue. After a month, healing was satisfied and patient had no compliants. A new denture was planned and there was no recurrence.

Keywords : epulis, lingual, lingual epulis, oral pathology, epulis fissuratum

Glandular Odontogenic Cyst: Two case report

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Glandular odontogenic cyst (GOC) is a rare developmental odontogenic cyst of jaws. Cyst is encountered in the anterior areas of the mandible and is more common with a wide age range, the mean age being 49.5 years. Lesion has a potentially aggressive behaviour and recurrence risk is high. Clinical and radiographic findings were not specific, and the diagnosis of GOC can be extremely difficult due to the rarity of this lesion. Definitive diagnosis of the GOC is established only by histopathological examinations. Histologically, GOC is characterized by a thin nonkeratinized squamous epithelial lining, with papillary projections, nodular thickenings, mucous (goblet) cells with intraepithelial mucous pools and intraepithelial glandular, microcystic or duct-like structures. This report presents two glandular odontogenic cyst in posterior mandible and maxilla which is quite rare.

Keywords : glandular odontogenic cyst; posterior; maxilla; mandible

Recurrent Odontogenic Myxoma in Anterior Maxilla: A Rare Case Report

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Odontogenic myxoma is a benign odontogenic tumor with locally aggressive behavior, and is relatively rare in the oral cavity. They are manifesting with painless swelling and locally invasive. Odontogenic myxoma occurs commonly in the posterior mandible and their presentation in maxilla is rare. Recurrence rate range from 10 to 33% with an average of 25%. It is a slow-growing but locally invasive neoplasm, usually occurring in the second or third decade of life. Curettage, surgical enucleation and resection are the treatment options of odontogenic myxoma. Differential diagnosis must be made with fibrous dysplasia, central giant cell granuloma, dentigerous cyst, central hemangioma, ameloblastoma and aneurysmal bone cyst. Till date, only few cases of maxillary gingival myxomas are reported in the literature. In this report 33 years old male patient with recurrent odontogenic myxoma rarely located on anterior maxilla was presented.

Keywords : recurrent; odontogenic myxoma; maxilla; anterior

DENTAL VOLUMETRIC TOMOGRAPHIC INVESTIGATION OF ANATOMIC AND PATHOLOGICAL FORMATIONS RELATED WITH SINUS LIFT SURGERY

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Objective

The amount of residual alveolar bone from the alveolar crest to the maxillary sinus needs to be considered for implantation in the posterior maxillary edentulous area. The success rate of sinus lift operation is affected from the location and diameter of posterior superior alveolar artery, the mucosal thickening of the sinus, the existence of pathology and the maxillary sinus lateral wall thickness and the purpose of this study was to elucidate the differences of the prevalence of these factors on Dental Volumetric Tomography (DVT) images according to side, age and sex.

Material and Methods

479 CBCT scans of 215 males and 264 females obtained from the archive of the Dentomaxillofacial Radiology Center in Ankara. Patient ages ranged from 30 to 79 years. Digital images were taken using TASK Queue PANEL scanner (Carestream Health, Inc. 2011) with a FTF image detector and a cylindrical volume of reconstruction of up to 10 × 10 cm. Images were taken at 90 kVp, 10 mA, and a with an exposure time of 12 seconds. 3D reconstructions were created by reformatting the axial CBCT scans on a local workstation using TASK dental imaging software (Carestream Health, Inc. 2011).

Results

Among 81,4 % of the examined tomography images, posterior superior alveolar artery (PSAA) was detected. The mean diameter value of PSAA was found as $1,19 \pm 0,45$ mm. The minimum and maximum values measured for the distance of PSAA and the alveolar crest were respectively 12,90 mm and 21,36 mm. The mean value of the lateral wall thickness was determined as $1,66 \pm 0,53$ mm. In 50,5 % of the cases septa, in 58,5

of the cases mucosal thickening and in 28 % of the cases maxillary sinus pathology were detected.

Conclusion

It was concluded that to increase the success rate in maxillary sinus lift operations, the risk factors which are the reasons of complications must be evaluated with DVT before the surgery.

Keywords : posterior superior alveolar artery,vascular canal, sinus lift, sinus septa, sinus pathology

FIBROLIPOMA OF THE FLOOR OF MOUTH: REPORT OF A RARE CASE

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Lipomas are among the most common benign mesenchymal neoplasms composed of mature adipocytes, usually surrounded by a thin fibrous capsule. Fibrolipoma (FL), an uncommon, histological variant of the conventional lipoma, rarely occurs in the oral and maxillofacial regions and mostly affects the buccal mucosa. Very few cases of FL in the oral cavity have been reported in the literature. Only two case reports of FL of the floor of mouth was found according to our research in PubMed.

We present a case of a 26-year-old female patient who presented with a slow growing asymptomatic sessile swelling in the floor of mouth which exists for ten years that was treated by intra-oral excision under local anesthesia. Histopathologic examination of the specimen confirmed that it was a FL.

Adequate surgical excision of this lesion is the treatment of choice and local recurrence is extremely rare. A histopathological examination is required for diagnosis. Long-term follow-up is recommended for early recognition of recurrence and malignant transformation.

Keywords : fibrolipoma, lipoma, oral cavity, benign tumor

SOLITARY INTRAOSSEOUS NEUROFIBROMA OF THE MANDIBLE: A CASE REPORT

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Neurofibroma is a benign tumor derived from the peripheral nerve sheath that consists of a mixture of Schwann cells and perineural fibroblasts. Neurofibromas often locate in the soft tissue of the head and neck. However, there are very few reports of solitary intraosseous neurofibroma of the jaw. Intraosseous neurofibroma tends to persist for years without clinical symptoms and is usually discovered incidentally.

This report describes a rare long-standing case of central neurofibroma of the mandible. A 66-year-old woman referred to our clinic for prosthodontics treatment. In radiographic evaluation, a radiopaque mass enclosed by a well-defined unilocular radiolucency, measuring 20 x 14 x 18 mm (length, width and height, respectively) was observed. It was initially diagnosed as benign tumor and surgically removed under local anesthesia. It was immunohistochemically confirmed to be neurogenic tumor because of positive reaction for S-100 protein in tumor cells. The wounds healed uneventfully without any signs of recurrence during follow-up visits.

The treatment for solitary neurofibroma is complete surgical removal. Although malignant transformation and recurrence is rare, clinical and radiographical long-term follow-up is necessary. It is important to consider the intraosseous neurofibroma in the differential diagnosis of the radiolucent lesions of the jaws. Neurofibroma can occur in jaw as an isolated benign tumor in patients with no family history or other features of Neurofibromatosis 1.

Keywords : solitary neurofibroma, neurofibromatosis, S-100 protein, benign intraosseous tumor.

THE EFFECT OF ANKAFERD BLOOD STOPPER ON EARLY BONE TISSUE HEALING IN EXTRACTION SOCKETS: AN EXPERIMENTAL IN VIVO STUDY

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Objective: Ankaferd blood stopper (ABS) is a mixture of five medicinal plant extracts, have been used as a hemostatic agent for years. The aim of this study was to investigate the effect of ABS on early bone healing on extraction sockets in rats.

Material and methods: 28 male wistar rats were divided into four groups. Maxillary right first molar tooth of the rats were extracted under general anesthesia. Two groups (C-1, n=6 and C-2, n=6) received saline solutions to the extraction sockets immediately and one day after the extraction respectively and two groups (A-1, n=8 and A-2, n=8) received ABS. The rats in A-1 and C-1 groups were sacrificed after 7 days of post-extraction and the rats in A-2 and C-2 groups were sacrificed at 28. days. Bone samples were taken from the maxillas and tissue were prepared for histopathological analyses. Osteoid tissue (OT), mineralized bone tissue (MT), remaining area (RA) and inflammatory cell infiltration (ICI) were determined. The histomorphometric results were analyzed statistically by the ANOVA test.

Results: The osteoid formation was highest in the C-1 group ($p<0.05$). The differences in OT among other groups were not significant ($p>0.05$). The MT was higher in the C-2 group than those of the other groups ($p<0.05$). RA was highest in the C-1 and A-1 groups. ICI was significantly lower in the control (C1 and C-2) groups than the ABS (A-1 and A-2) groups ($p<0.05$).

Conclusion: We concluded that topically administered ABS to the extraction sockets immediately after the extraction had no effect on bone healing; in fact ABS increased inflammation in vivo.

Keywords : ankaferd blood stopper, wound healing, bone, tooth extraction.

COMPARISON OF ACCEPTANCE AND EFFICACY BETWEEN JET INJECTION WITH INJEX AND LOCAL INFILTRATION ANESTHESIA

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Pain control is achieved typically by means of injection of local anesthesia for invasive procedures to carry out procedures with as little pain or discomfort as possible. Although this method is highly effective, patients often fear more from the sight of a needle during administration of local anesthetic than from the treatment. Therefore, needleless local anesthesia with a jet injection device has been proposed. With INJEX (Rösch AG Medizintechnik, Germany), anesthetic solution is forced under high pressure into the oral mucosa, leading to mechanical infiltration of the compound through the mucosa. The current opinion is that this technique can be used only for surface anesthesia and standard infiltration techniques are necessary.

OBJECTIVE: With this study, we aimed to show the effectiveness of the needleless injection for infiltrative anesthesia and compare the acceptance and efficacy between jet injection with INJEX and local infiltration anesthesia.

METHOD: Thirty adult patients admitted to our department for tooth extraction were included in the study. Two symmetrical teeth in the same jaw were extracted from each of the patients. Jet injection with INJEX was performed on one side and classical (needle) infiltration anesthesia on the other side with 0.3 cc Ultracain DS forte (Sanofi Aventis, İstanbul, Türkiye) on buccal and lingual aspects and 0.1 cc on palatal aspects of the teeth. Data obtained with a 'fourteen questions' questionnaire were evaluated.

RESULTS: Jet injection with INJEX was found to be effective for local infiltrative anesthesia. It was more acceptable than classical infiltration anesthesia by patients. The main problem with jet injection was the "pop" sound when INJEX device was pressed.

CONCLUSION: The jet injection technique may be beneficial in dentistry. It can be used to reduce fear from needle view. Further studies investigating the effectiveness of jet injection with INJEX in restorative dental procedures in children and adult patients are required.

Keywords : jet injection, needleless anesthesia, local anesthesia, injex

Inferior Alveolar Nerve Repositioning: A Case Report

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The deficiencies of the posterior mandible ridges can be treated different procedures including; onlay bone grafting, inter- positional bone grafting, vertical alveolar osseodistraction, nerve lateralization and transposition. IAN reposition is indicated where the vertical distance between the ridge crest and the alveolar nerve severely reduced. To provide ideal crown/root ratio of fixed dental prosthesis in atrophic posterior mandible IAN repositioning is necessary. This case report presents the treatment procedure of 28-year-old female patient suffer from edentulous atrophied posterior mandible. Based on clinical and radiologic examination dental implants treatment was performed after IAN repositioning was considered.

Keywords : inferior alveolar nerve repositioning, atrophic mandible, implant placement

Multipl Keratocystic Odontogenic Tumor in the Maxilla and Mandible: An Uncommon Case Report

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INTRODUCTION: Keratocystic odontogenic tumor is known as a local aggressive neoplasm originating from the dental lamina and connected with impacted teeth. Multiple keratocystic odontogenic tumors are rarely seen and usually associated with nevoid basal cell carcinoma syndrome or Gorlin Goltz syndrome. Histologically, the lesion has a characteristic covering of parakeratinized stratified squamous epithelium.

CASE REPORT: A 12-year-old male patient applied with a complaint of swelling, pain and purulence in the jaws to the Department of Oral and Maxillofacial Surgery. Radiographic examination revealed multiple unilocular, well-defined, radiolucent lesions associated with impacted teeth in the maxilla and mandible. Intraoral inspection showed buccal and lingual expansions in the anterior region of the mandible. Under general anesthesia the lesions were enucleated and the impacted teeth were extracted. Histopathologic examinations of all lesions revealed diagnosis of keratocystic odontogenic tumor. After one-month of clinical follow-up an infection was observed in the anterior region of the mandible. Under general anesthesia the anterior region of the mandible was exposed and curettage of inflammatory tissues was performed. The patient was also consulted with department of medical genetics to investigate possible diagnosis of any syndrome. The patient is still in clinical, radiographic and genetic follow-up.

CONCLUSION: Multiple cystic lesions of jaws –especially in younger individuals- should be suspected for possible aggressive jaw lesions with undermining possible genetic disorders.

Keywords : multiple keratocystic odontogenic tumor , gorlin goltz syndrome, younger individuals

Bilateral Kissing Molars: A case report

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OBJECTIVES

The permanent teeth most often affected by eruption problems are the mandibular and maxillary third molars, maxillary canines, central incisors, second mandibular premolars and, more rarely, second molars. The term of "kissing molars" or "rosette formation" are used for impacted permanent molars which have occlusal surfaces contacting each other in a single follicular space, with roots pointing in opposite directions.

CASE

A 38-year-old female referred to the Department of Oral and Maxillofacial Radiology with a complaint of a swelling over the right lower side of the face. A panoramic radiograph showed a bilateral impacted mandibular second and third molar with a single follicular space. After consultation with the oral and maxillofacial surgery department, left and right impacted teeth extracted surgically respectively with local anesthesia from oral and maxillofacial surgery department.

RESULTS

Nerve damage, abscess or any complications did not monitor. Healing period was uneventfully at the end of the 3 month period.

CONCLUSION

Preservation of the impacted teeth can create the complications such as reduction of mandible bony tissue; which increases the chances of mandible fracture, root resorption of adjacent teeth, local pain or pathologic changes. In order to avoid these complications, surgery must be applied but in asymptomatic patients it should be considered a near investigation without surgery.

Keywords : impacted molars, kissing, mandible.

Unerrupted of Maxillary Incisor Associated with Odontoma: A Case Report

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Objective

Odontoma is *most common* type of benign odontogenic tumor. The etiology of odontomas is *unknown although* it could be due to local trauma, infection or genetics factors. They can prevent the eruption of permanent teeth and *change* direction of tooth eruption. This is a case report of a 10-year-old boy with an impacted maxillary left central incisors due to a odontoma.

Case report

An 10 year-old male patient was admitted to the department of Pediatric Dentistry complaining of delayed eruption of his permanent maxillary left central incisor. Clinical examination revealed impacted permanent maxillary left central incisor. *There was sufficient space* for this tooth. Radiographic examination revealed the presence of central incisors with a odontoma present incisally, thereby obstructing its eruption. Under local anesthesia odontoma was surgically removed by Department of Oral and Maxillofacial Surgery.

Result

After surgery, healing period was uneventfull. Follow up sessions were scheduled for every month.

Conclusion

Odontoma is known benign odontogenic tumor which may cause diastema, disturbances in the eruption of teeth. For that reason, early diagnosis and surgical removal is very important.

Keywords : odontoma, maxilla, incisor tooth.

MANAGEMENT OF UNILATERAL OSTEOCHONDROMA OF THE CORONOID PROCESS (JACOB'S DISEASE): A CASE REPORT

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Coronoid process enlargement can result from exostosis, osteoma, osteochondroma, chondroma, hyperplasia and developmental anomalies. Jacob first described an osteochondroma of the coronoid process forming a pseudojoint between the coronoid process and the zygomatic arch in 1899. The main clinical finding of the disease is a progressive painless limited mouth opening. The aim of the treatment is to increase the patient's mouth opening by surgery. The present case report is about management of unilateral osteochondroma of the coronoid process by coronoidectomy via intraoral approach and early postoperative physiotherapy.

A 14-year old female patient consulted to our department, complaining of limited mouth opening, pain and swelling on the left preauricular area. Panoramic radiograph and computed tomography showed elongated left coronoid process over the zygomatic arch. The maximum mouth opening (MMO) was 17 mm. Coronoidectomy via intraoral approach was chosen as the treatment modality. Because of the limited mouth opening, fiberoptic assisted nasotracheal intubation was performed. Incision was planned along the anterior border of ramus and dissection was made to top of the coronoid process. A horizontal osteotomy was made from anterior border of the ascending ramus to the sigmoid notch. After the detachment of the temporalis muscle, elongated coronoid process was removed. At the end of the operation, the interincisal distance was 43 mm. Based on the histopathologic features and the anatomical location, a final diagnosis of Jacob's disease was made. Physiotherapy rehabilitation with TheraBite jaw motion appliance was started at first postoperative day. One week later, MMO was 29 mm. The patient was then followed up for a period of 1 year with no evidence of recurrence and MMO was 41 mm.

Surgical treatment is recommended to treat coronoid process hyperplasia. Intraoral coronoidectomy with early postoperative physiotherapy may ensure satisfactory results.

Keywords : jacob's disease, osteochondroma, coronoid process hyperplasia, coronoidectomy, limited mouth opening, therabite.

Large Keratocystic Odontogenic Tumor of the Mandible: A Case Report

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OBJECTIVE:

Keratocystic odontogenic tumor (KCOT) is described as "a benign unicystic or multicystic, intraosseous tumor of odontogenic origin. It was reported that approximately 11% of all cysts of the jaws are KCOT. They happen most frequently in the mandible, particularly in the posterior area and ramus regions. They are seen more frequent in males and in the third decade of life.

CASE:

A 44 years old male patient referred to the Department of Oral and Maxillofacial Surgery with chief complaint of paresthesia at the right side of the lower lip. On the radiographic examination a radiolucent area was seen at the right side of the mandible in which ascending ramus region. Then a fine needle aspiration and excisional biopsy of the cyst were done. Simultaneously with the biopsy, the cyst was marsupialized and the patient was checked weekly. The result of histopathologic evaluation was KCOT. After a year of follow up period, cyst was enucleated under general anesthesia.

RESULTS:

We used both conservative and surgical techniques for treatments of KCOT. Healing period was uneventful. We still keep the patient on regular follow-up period.

CONCLUSIONS:

Because of the destructive, high recurrence potential of KCOT, all pathologic tissue should be properly excised and histopathologic confirmation should be made for a definitive diagnosis. The follow up is advised for every six months for the next two years.

Keywords : large keratocyst, mandible, marsupialization, enucleation.

Clear Cell Odontogenic Carcinoma of the Mandible: Report of a Case

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Clear cell tumours of head and neck region are generally originated from salivary or odontogenic tissues or may be metastatic. Clear cell odontogenic neoplasms are seen quite rare. These tumours features recurrences, aggressive growth and metastatic disease.

A 44 years old female patient was referred our department for wide radiolucency in right mandible and complained of swelling on right mandible and cheek. Initial insicional biopsy had showed clear cell odontogenic carcinoma (CCOC) before she had come our department. After seconder incisional biopsy had performed in our department and results confirmed the first biopsy. Then surgical en bloc resection of the mandible with lesion, supraomohyoid neck dissection and reconstruction of right mandible was planned and performed in general anesthesia.

There were no comlications during the healing period like infection or exposure of reconstruction plate. After 12 months follow up aesthetic and functional outcomes of patient are satisfactory.

CCOCs especially occurs between 5th-7th decades with a female predilection. Majority of patients complain of teeth mobility or swelling of the jaws. Extensive invasion of contiguous tissues, distant metastasis and recurrences indicate the aggressive potential of CCOCs. For surgical treatment options includes curettage, mandibulectomy, maxillectomy, en block resection, and local excisions. If there is clinical or radiographic evidence of nodal metastasis, neck dissection should be performed.

Keywords : clear cell odontogenic , carcinoma, tumour, mandible

A Case Report: Dentigerous Cyst and Its Management

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Introduction: Dentigerous cysts are one of the prevalent cysts of the jaws. There are odontogenic developmental cysts which are appeared with often the permanent dentition, mostly related with impacted mandibular third molars.

Case: A 32-year-old male patient reported to the our department with a chief complaint of a pain in the mandibular left molar teeth. Lesion was well defined unilocular and had involved the mandibular left third molar and mandibular left second molar teeth roots on panoramic radiography. Inferior border of lesion was seemed that associated with mandibular nerve. Before operation second molar teeth's canal treatment was performed. Cyst was enucleated with extraction of the third molar under local anesthesia. Pathological analysis of lesion confirmed diagnosis as dentigerous cyst. Postoperative period was eventless. Patient hadn't got parasthesia and pain.

Discussion: Dentigerous cysts are usually asymptomatic. The standard treatment of dentigerous cysts is enucleation of lesion. Before creating a treatment plan, evaluation of the lesion's size, localization and patient age are very critical for the operation's success.

Keywords : dentigerous cysts, enucleation , parasthesia

ALTERNATIVE TREATMENT APPROACH OF MAXILLARY RETRUSION OF AN ADOLESCENT PATIENT: CASE REPORT

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AIM: Aim of this case report was to present orthopedic and fixed orthodontic treatment of a patient with maxillary retrusion, with application of intermaxillary Class III elastics between miniplates inserted maxilla and mandible.

CASE AND METHOD: Male patient who underwent palatal cleft operation, with 13 years 2 months chronological age was at S stage of growth and development according to his hand and wrist radiograph. He had mesofacial facial type and concave profile, skeletal Class III relationship with maxillary retrusion and ANB angle of -7° . Due to extraction of upper left canine and vestibuloposition of upper right canine, molar relationships were Class I on the right side and Class II on the left side. He had narrow maxilla with circular cross-bite and 5,5 mm overbite, -4 mm overjet. It was planned to use intermaxillary Class III elastics between mini-plates inserted to left and right zygomatic buttress in maxilla and the region between lateral and canines in the mandible in order to correct maxillary deficiency. 4 triangular shaped mini-plates were inserted under local anesthesia. Totally 800 gr force (400 gr each side) was applied with intermaxillary elastics 1 week later from the operation. Orthopedic treatment was lasted 8 months. Then the upper right canine, the lower right and left first premolars were extracted for correcting the crowding. The fixed orthodontic treatment was lasted 3 years. Lingual retainers and essix appliances were applied in the lower and upper arches.

RESULTS: GoGn/SN and SNA angles were increased, SNB angle decreased. The midfacial deficiency was decreased significantly, the profile was improved, ideal overjet and overbite were obtained.

CONCLUSION: Application of intermaxillary Class III elastics with skeletal anchorage systems can provide the correction of skeletal relationship with minimum dentoalveolar compensation in Class III patients with maxillary deficiency.

Keywords : skeletal anchorage, skeletal class III treatment

ORO NASAL FISTULA REPAIR AND ALVEOLAR RIDGE AUGMENTATION WITH USING OTOGENOUS CHIN GRAFT; A CASE REPORT

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ORO NASAL FISTULA REPAIR AND ALVEOLAR RIDGE AUGMENTATION WITH USING OTOGENOUS CHIN GRAFT; A CASE REPORT

BACKGROUND:

Oronasal fistula is an abnormal connection between the oral cavity and nose. It may cause some problems such as regurgitation of food through the nose, secretions discharged into the mouth causing halitosis, speech impairment, differentiation of resonance, and degradation of sound clarity. The reason of oronasal fistula are pathological presences, iatrogenic factors or failure of surgical procedure at upper jaw such as cleft palate repair or removal of tumors and cysts.

CASE PRESENTATION

A 48-year-old healthy and non-syndromic male presented Oral and Maxillofacial Surgery Department at Gaziosmanpasa University, Faculty of Dentistry, because of Oronasal fistula at upper jaw due to the tooth extraction ten years ago. Extraoral examination showed that the patient had a painful swelling in the left infraorbital site. Intraoral examination showed oronasal fistula sized 1 mm with purulent material. The patient felt a strong pain with palpation in the fistula region because of inflammation. There was prulent rhinorrhea and regurgitation of fluids into the nasal cavity. (Fig.1); The orthopantomography and CT images confirmed the diagnosis of oro-nasal fistula (Fig. 2). This case required antibiotic therapy with amoxicillin and clavulanic acid 875 mg + 125 mg, one tablet every 12 hours starting 48 hours before surgery. The patient was informed and prepared for surgery under general anesthesia. Lokal anesthetic containing epinephrine was performed for hemostasis. Thereafter, a muco-periosteal flap was down to open the surgical area and periosteal releases of the buccal part were performed to obtain the closure of the flap by primary intention. Small perforations was performed in the cortex with a fissur bur to activate the receipient bed.(Fig. 3)nasal fistula repaired

with chin corticocancellous block graft. Synthetic graft and collagen membrane was performed on otogene graft to prevent resorption. (Fig 4) Then operation regions was closed suture with absorbable synthetic thread 3/0. (Fig 5) Orthopantomograf at 5 months, showed oro-nasal fistula got closed. Consequently horizontal and vertical augmentation of alveolar ridge was achieved for solving aesthetic problems. (Fig. 6)

CONCLUSION:

Different surgical options have been reported for oro-nasal fistula reconstruction. Oronasal fistula repair with using bone graft is an easy and perhaps ideal method, with a high success rate. In addition this technique provides horizontal and vertical augmentation of alveolar ridge.

Keywords : oronasal fistula, otogenous graft, ridge augmentation

Expansion of Premature Ossification Occurring after Rapid Maxillary Expansion (RME) by Second Surgery

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Rapid maxillary expansion (RME) is a technique that has been successful in children and young adolescents. In patients who have completed growth and development, Assisted Rapid Maxillary Expansion Surgery (SARME) should be implemented. In this case, the patient's treatment and follow-up outcomes is located who SARME applied under general anesthesia, but premature fusion seen and second surgery applied under local anesthesia to the midpalatal suture.

Keywords : rme, premature ossification, second surgery, midpalatal suture

Simultaneously, Split-Crest Osteotomy And Dental Implant Placement In Atrophic Posterior Mandible: A Case Report

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OBJECTIVE:

Endosseous implants have restored normal function and dental health to many patients. Bone augmentation procedures are routinely required before dental implant placement. Several techniques for this procedure may be considered, such as guided bone regeneration, bone block grafting, and ridge splitting for bone expansion. This clinical review is an evaluation of the effectiveness of the split ridge bone augmentation technique performed in the atrophic mandible with buccolingual bony defects.

CASE:

A 55 year old female patient admitted to our clinic for dental implant supported prosthesis treatment. In intra oral examination the right first and second molar teeth was seen missed in mandible. Simultaneously, dental implants were placed within the split ridge, surrounded by the particulate bone graft and covered by a resorbable membrane. Postoperative healing occurred uneventfully. Six months later, the implants were uncovered followed by impression and final restoration with implant-supported porcelain-fused-to-metal crowns.

RESULTS:

Narrow edentulous alveolar ridges less than 5 mm wide require horizontal augmentation for the placement of screw-type dental implants. A staged approach to ridge splitting in the mandible to decrease the risk of malfracture during osteotomy is presented.

CONCLUSIONS:

The modified split-crest osteotomy for the mandibular narrow alveolar ridge provides predictable results in relation to primary stability and implant surveillance.

Keywords : split crest, mandible, dental implants.

Implant Supported Restoration Of The Atrophied Maxilla Associated With The Aspergillosis Of The Maxillary Sinus

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OBJECTIVE:

Aspergillosis is an opportunistic fungal infection that occurs generally immunocompromised patients but rarely can also affect healthy subjects. Aspergillosis can manifest three clinical forms: noninvasive, invasive and allergic. Intrusion of foreign bodies, such as root-filling materials or tooth pulp, into the maxillary sinus may predispose a person to noninvasive aspergillosis. Here we represent a procedure for removal of a foreign body and report on the healing process of a patient with fungal infection before implant rehabilitation of the atrophied maxilla.

CASE:

A 59-year-old female patient referred to our clinic with the complaint of partial edentulism at the left posterior maxilla and fullness in the left maxillary sinus. A computerized tomography showed the maxilla with enlarged left maxillary sinus close to the thin cortical surface of the atrophic ridge. We decided to restore posterior edentulism with dental implants. Also, there was a radiopaque foreign body such as root-filling material in the maxillary sinus. We removed from the maxillary sinus granulation tissue caused by a foreign body mass composed of dark brown and yellow material and sent it for histopathological analysis to the department of pathology. We also placed two implants with dimensions of 4.1 × 8 mm in the left second premolar region and 4.8 × 12 mm in the left second molar region at an angle of approximately 40 degree to restore edentulous region. The histopathological examination revealed a polypoid formation composed by an agglomerate of hyphae mycetes caused by Aspergillus. The patient has been treated by fluconazole for fourteen days without the improvement of symptom.

RESULTS:

The patient was recalled after five months of the implant placement and implant supported restoration was finished. The patient was satisfied with the esthetic and functional results of definitive restorations. No clinical complications were observed during the follow-up period.

CONCLUSIONS:

Successful treatment of patients with noninvasive fungal sinusitis requires only surgical removal of the mycotic masses. A sinus membrane perforation could represent a window for bacterial invasion into the sinus area and represent disturbance of physiologic mucociliary action that can lead to failure to clear bacteria and secretions from the sinus. Our treatment of the patient by surgical removal of mycotic masses and implant placements seems to have been appropriate for healing and reconstruction of the maxilla.

Keywords : aspergillosis, fungal sinusitis, atrophic maxilla, implant rehabilitation.

Five year follow up of inlay bone grafting: A case report

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Severe atrophy of the edentulous maxilla and progressive pneumatization of the maxillary sinus can compromise the insertion of the dental implants. For this purpose different augmentation techniques such as onlay, inlay bone grafting, shorter dental implants, distraction osteogenesis, guided bone regeneration and sandwich technique have been developed. In 1989, Sailer described a combination of bone grafting including Le Fort I osteotomy and simultaneous dental implant insertion. However in order to allow bone healing first implant surgery perform stage could be deferrable. To determine the effectiveness of this techniques objectively larger samples and long term follow up are needed. We discussed these techniques with the help of a five year follow -up case rehabilitated with inlay bone grafting and dental implants.

Keywords : le fort 1 osteotomy; iliac bone graft; dental implant

Intraoral Actinomycotic Lesion: A Case Report

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Objective:

Actinomycosis is an infectious disease that is caused by saprophytic Actinomyces species. It is characterized by granulomatous and suppurative lesions . Intraoral infections are relatively rare but it can be seen sometimes mandible, tongue, lips and oral mucosa. The developing granulomatous and suppurative lesion disrupts the mucosa and invaded into the deeper tissue and producing a permanent discharge of purulent exudate. In our case we aimed to treat a lesion limited to the buccal tissue which is caused by actinomyces species.

Case Report:

The male patient who was 68 years old referred to our clinic with the pain and swelling at the lower left buccal oral tissue. There was no cervical lymphadenopathy and the laboratory data were unremarkable. Under local anesthesia we made an excisional biopsy and curated all of the mass from the buccal tissue. After the operation, administration of the oral antibiotics started. Excised specimen was sent to oral pathology and a diagnosis was made actinomycotic lesion.

Results:

Healing period was uneventful. Patient complaints were disappeared.

Discussions:

After diagnosis, treatment of actinomycosis consisting of surgical excision, prolonged administration of antibiotics and drainage should be commenced as soon as possible.

Keywords : actinomycotic lesion, sülfür granules, buccal mucosa.

Accidentally split crest technique for knife edge ridge in posterior mandible

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The management of edentulous posterior mandible area which have knife edges, narrow ridge crest, are generally difficult. For this purpose different treatment protocols such as guided bone augmentation procedures, onlay block bone grafting, distraction osteogenesis and alveolar bone splitting /ridge expansion have been described. Split crest technique is a modification of alveolar bone splitting include buccal wall splint, grafted with guided bone augmentation procedure and fixed to the lingual wall with a screw. However bad split of the buccal wall may also lead to split crest technique usage during alveolar bone splitting procedure. This report present a case reported dental implant placement to the knife edge crest with the help of split crest technique.

Keywords : split crest technique; screw; graft

ORAL REHABILITATION WITH MAXILLARY ANTERIOR SEGMENTAL OSTEOTOMY AND IMPLANTATION: A CASE REPORT

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Anterior segmental osteotomy (ASO) has become an established surgical technique to achieve functional occlusion and improve the facial profile in the treatment of maxillary protrusion. The usual indications for ASO are excessive vertical or sagittal development of the maxillary alveolar process in patients where the relationships between the posterior teeth are acceptable. Anterior maxillary excess presents with excessive gummy smile with increased over jet and deep overbite. This clinical case typically exemplifies the effect of ASMO on improving the skeletal, dental, soft tissue and over all aesthetics of the patient.

Keywords : anterior segmental osteotomy, implant, protrusion

PRF as a graft material for sinus augmentatiton - a new choice?

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Introduction

In the atrophic posterior maxilla, bone augmentation in the maxillary sinus is an important procedure for implant placement. One key question that remains is to define the best filling material for the sinus cavity after lifting the sinus membrane. Several authors have shown that sinus lifting using autologous platelet rich fibrin as the filling material is a reliable procedure, promoting bone augmentation in the maxillary sinus. Platelet-rich fibrin (PRF), a second generation platelet concentrate was defined as an autologous leukocyte and platelet-rich fibrin biomaterial that is obtained from blood-tissue. PRF is commonly utilized in oral and maxillofacial surgery as a graft material or a membrane.

Reports of case

A 48-year old man who had been complaining of edentulous both maxillary posterior segments had a check up at our department. After clinical and radiological evaluation, implantation was decided with lateral sinus lifting. First of all, 9 ml blood is collected in glass-coated plastic tubes and immediately centrifuged at 2700 rpm for 12 minutes. Three layers are formed: a red blood cell base at the bottom, acellular plasma as a supernatant, and a PRF clot in the middle. After centrifugation, the PRF clot was removed from the tube using sterile tweezers, separated from the red blood cell base and placed in a sterile metal cup. Each PRF clot started to release its serum and was ready for compression into the graft or membrane. After preparation of PRF, a muco-periosteal incision was made and a large bone window was performed. After elevation of the Schneiderian membrane, the sinus cavity was filled with a combination graft of allograft and PRF. Finally, 2 PRF membrane was used to cover the osteotomy window and protect the filled sinus from potential mucogingival invagination.

Discussion

PRF provides a significant postoperative protection of the surgical site and seems to accelerate the integration and remodeling of the grafted biomaterial. Also PRF membranes may be utilized in combination with graft materials to enhance bone regeneration in lateral sinus floor elevation or as a sole osteoconductive filling material during a sinus-lift. It is also useful for Schneiderian membrane protection. Using a patient's platelet-rich fibrin as filling material has various theoretical advantages, including ease of procurement and application, lack of adjunctive grafting materials and the presence of growth factors in platelets.

Conclusion

The PRF can act as a delivery system for graft particles in maxillary sinus floor augmentation. Fibrin-allograft composite has a positive impact on handling and adhesion to the walls of the bone defects.

Keywords : platelet rich fibrin, augmentation, sinüs lifting

Association of Fractal Analysis with Implant Insertion Torque and Resonance Frequency Analysis at Implant Recipient Site

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Purpose: Fractal analysis is a mathematical method for describing internal architecture of a complex structure including trabecular bone. The aim of this study was to investigate whether box-counting fractal dimension algorithm from panoramic radiographs is correlated to primary stability of an implant represented by ISQ and insertion torque values.

Material and Methods: Thirty patients who received 55 of the same branded, diameter and length implants to mandibular premolar and molar regions were included in the study. Radiographic fractal dimensions of alveolar bone corresponding to the implant recipient area were calculated on preoperative panoramic radiographs using a box-counting algorithm. The results of insertion torque and resonance frequency values were compared with fractal dimension values using the Spearman test.

Results: Linear statistical correlations were observed between fractal dimensions and resonance frequency analysis ($P= 0.0059$), fractal dimensions and insertion torque values ($P= 5.2806 \times 10^{-4}$) and resonance frequency and insertion torque values ($P= 5.6588 \times 10^{-4}$).

Conclusions: The results suggest that there is a positive correlation between insertion torque, resonance frequency and fractal dimensions of the mandibular alveolar bone in which dental implants were inserted. Therefore it can be concluded that the measurement of the fractal dimension from panoramic radiographs might be beneficial to predict the bone quality before implant insertion.

Keywords : fractal dimension, dental implant, insertion torque, resonance frequency

Medication-Related Osteonecrosis of the Jaw ; When Should We Go into Action?

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Objective : The objective of this report is to discuss medication-related osteonecrosis of the jaw (MRONJ) treatment options and timing for surgery by means of a case treated surgically.

Method : A 80 year old patient was diagnosed as prostate cancer in 2005 and used zoledronate for 2 years since then. His right mandibular canine was extracted because of an infection at a private clinic without taking any measure for MRONJ in 2006. Since then, he had some complaints in the same area and was diagnosed as MRONJ at another private clinic in 2007. Conservative measures were taken including chlorhexidine rinses, systemic antibiotics, and pain medications at the same clinic between 2007 and 2011. The patient came to our clinic with complaints of exposed bone and recurrent infection on the right anterior mandible in 2011. An orthopantomogram and CBCT showed a well demarcated bony sequestrum about 2 cm in diameter. The bony sequestrum was enucleated through a conservative incision under local anesthesia and soft tissue was closed primarily. Systemic antibiotics were prescribed preoperatively and postoperatively. Chlorhexidine rinses and pain medications also were given postoperatively. Histopathologic evaluation of the specimen confirmed the diagnosis of necrotic bone.

Results : The postoperative period was uneventful and the soft tissue healed well. A four years' follow up orthopantomogram showed also a good bony healing.

Conclusion : Currently, no reference standard is available for the treatment of MRONJ. Most clinicians have difficulty in making a decision when to stop conservative medication and to take surgical measures. From our point of view, the conservative medication should be maintained until the bony sequestrum can be distinguished from healthy bone with a demarcation line. Then, surgical options, such as sequestrectomy, must be considered.

Keywords : medication, osteonecrosis, jaw, sequestrum

Late-developing Nonsyndromic Multiple Supernumerary Mandibular Premolars: Case Report and 2-year Follow-up

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OBJECTIVES

The aim of this case report is to present 2 year follow-up of multiple supernumerary teeth developing in the mandibular premolar region in a 17 year old male patient.

CASE REPORT

Supernumerary tooth may be defined as any teeth or tooth substance in excess of the usual configuration of 20 deciduous and 32 permanent teeth. The etiology of supernumerary teeth remains unclear. Supernumerary teeth may occur singly or in multiples, unilaterally or bilaterally and in one or both the jaws. The presence of the supernumerary teeth may be related to certain syndromes. The occurrence of multiple supernumerary teeth, in the absence of an associated systemic condition or syndrome is a very rare phenomenon. Usually supernumerary teeth develop later than corresponding normal teeth. More than 90% of the supernumerary teeth occur in the maxilla. This report presents a case of 2 year follow-up of multiple supernumerary teeth developing in the mandibular premolar region in a 17 year old male patient. He was 15 years old when the supernumerary teeth was diagnosed in a routine radiograph. The supernumerary teeth were asymptomatic and not associated with cyst formation or resorption of adjacent teeth. They were very close to the inferior alveolar and mental nerves in the lower premolar region. Because of the complication risks it was decided to observe these teeth periodically. More definitive treatment will be considered in the future.

CONCLUSION

When it is decided to observe supernumerary teeth, a regular clinical and radiographic monitoring program should be implemented. Even when the supernumerary teeth are removed, the patient should be regularly reviewed because of the increased risk of further supernumerary teeth developing.

Keywords : late-developing, nonsyndromic, supernumerary premolar

A Case Study:The All-on-4™ Treatment Concept Using Oxy Biomec™ Implants

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Objective

The All-on-4™ concept using two axially implants in the anterior region and two tilted posterior implants has been well documented and published by Malo P. et al with cumulative survival rates well above 92.2%. This concept using only four implants per arch is able to provide an edentulous arch with an immediate function fixed esthetic provisional prosthesis. The All-on-4™ treatment concept has been taught and done mainly with Nobel™ (Nobel Biocare USA Yorba Linda, California) Implant system. This study evaluated this concept using an Oxy Implant system from Biomec™ (Biomec, Colico, Italy).

Case report

A healthy non-smoking 65 year-old male presented with edentulism of both jaws. Four implants to each jaw were placed according to the All-on-4™ protocol. The implants were functionally loaded via a provisional acrylic bridge within 24 hours after surgery. 4 months after, the acrylic dentures were replaced by full ceramic fixed prosthesis with titanium framework.

One years postoperatively, both functional and cosmetic clinical results were satisfactory.

Conclusion

This study demonstrates that as long as the principles of ALL-ON-4™ Treatment Concept are observed, an alternative Implant System can be used with great success.

Keywords : all on four, implant, immediate loading, tilted

Compound Odontoma: Case Report

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Odontomas are well differentiated odontogenic benign tumors which receive their origin from epithelial and mesenchymal cells. Most of these lesions are asymptomatic and are often detected on routine radiographs. Morphologically odontomas can be classified as complex, when present as irregular masses containing different types of dental tissues, or as compound if there is superficial anatomic similarity to even rudimentary teeth – the denticles. The ethiology of odontomas are unknown, however local trauma, infection, inheritance and genetic mutation have been postulated as possible factors.

In this case report we present a 56 year old female patient whose radiograph showed the presence of a lesion formed by a radiopaque round tooth-like structures in the middle right of maxilla adjacent to the base of the nose with a hard swelling. Under local anesthesia, access to the lesion was achieved via intra-oral approach and its surgical removal was performed. The histopathologic examination confirmed the diagnosis of compound odontoma.

Routine radiographic examination is important for early detection of silent lesions such as odontomas. Several case series have documented that the majority of all odontomas were diagnosed in the first two decades of life. Although they may be discovered at any age, less than 10% are found in patients over 40 years old.

Keywords : odontoma, compound, maxilla, tooth-like

Marsupialization of Dentigerous Cyst with a Removable Appliance: Report of Case

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Objectives: Dentigerous cyst is one of the most commonly found jaw cysts and it appears as a radiolucent well-defined odontogenic lesion that surrounds the crown of an unerupted tooth preventing its eruption. The treatment modalities range from marsupialization to enucleation of the lesion. This report describes the case of a large dentigerous cyst associated with impacted teeth that was successfully treated with marsupialization with a removable appliance.

Patients and Methods: 28 years old male patients with infected large dentigerous cyst associated with left mandibular third molar was marsupialized with a removable appliance for 14 months. In this duration patient was controlled weekly than cyst was enucleated.

Results: 6 months after enucleation complete healing was seen in panoramic radiographs. No neural disturbances were encountered after operation. Patient is followed up without recurrence at 2 years .

Conclusion: The result show that marsupialization procedure decreases the morbidity associated with aggressive surgical procedures.

Keywords : marsupialization, dentigerous cyst

Ridge Splitting Procedure for Immediate Placement of Dental Implant: A Case Report

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Objectives: Alveolar bone splitting and immediate implant placement have been proposed for patients with severe atrophy of the maxilla in the horizontal dimension. The aim of this report to assess survival rate of immediate implants placed after split-crest technique.

Patients and Methods: 58 years old female patient who suffered from maxillary anterior tooth loss was examined clinically and radiographically. Alveolar ridge width was approximately 3 mm and no vertical bone reduction. The patient was decided to treat with maxillary anterior split-crest technique and to place five dental implants immediately.

Results: Six months after implant placement metal ceramic restoration were made and cemented. The final esthetic outcome after 1 year shows satisfactory result. The postoperative X-ray after 1 year shows very minimal bone loss at crest.

Conclusion: In this report shows that ridge splitting with bone expansion is an ideal technique if there is 3-4 mm alveolar width crestally which do not allow implant placement with conventional technique.

Keywords : dental implant, ridge splitting procedure

Osteomyelitis Secondary To Osteopetrosis Of The Jaws; 8 Years Follow Up - Case Report

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Osteopetrosis, known as marble bone disease and Albers-Schönberg disease, is a rare skeletal condition characterized by skeletal sclerosis. Main problem is inadequate osteoclast function generalized increase in skeletal mass. The consequent impairment of bone resorption prevents formation of bone marrow cavities and also delayed or absent tooth eruption. Three clinically distinct forms of osteopetrosis are recognized; the infantile malignant autosomal recessive form, the intermediate autosomal recessive form, and the adult benign autosomal dominant form. The disease represents a spectrum of clinical variants because of the heterogeneity of genetic defects resulting in osteoclast dysfunction. Management of patients with osteopetrosis requires a comprehensive approach to characteristic clinical problems including hematologic and metabolic abnormalities, fractures, bone deformity, back pain, bone pain, osteomyelitis, and neurologic sequelae. Medical treatment of osteopetrosis is based on stimulation of host osteoclasts with calcium restriction, calcitrol, steroids, parathyroid hormone, and interferon. Bone marrow transplant has been used with cure for infantile malignant osteopetrosis. In this poster presentation, eight-year clinical follow up of 72 years old female patient diagnosed with osteopetrosis with several times occurred infections, extraoral fistula, osteomyelitis of various bone is presented.

Keywords : oral pathology, osteopetrosis, osteomyelitis

Pleomorphic Adenoma of The Palate: A Case Report

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Objective: The pleomorphic adenoma is also known as mixed benign tumor of epithelium with reshuffling stroma. It is the most frequent salivary gland tumor, representing 45-75% of the total salivary gland tumors and 70% of the major gland salivary tumors. The location of tumors is preponderantly %52-84 at parotid gland,%7-17 at submandibular gland and %3-8 at the others. The tumor is usually presents as a slow growing, painless, firm nodular mass.

Material methods: In our case a 58 year-old female patient with pleomorphic adenoma that affects the hard palate is presented. Patient referred to our clinic with complaint of palatal swelling. Solid, mobile mass was seen in clinical examination.

Result: Lesion was total excised under local anesthesia and the tissue was sent for histopathological examination. Histological analysis of the tumor revealed a pleomorphic adenoma.

Conclusion: Recurrence after many years of surgical excision as well as malignant transformation should be a concern and therefore long-term follow-up is necessary.

Keywords : minor salivary gland, palate, pleomorphic adenoma

Craniofacial Fibrous Dysplasia: A Case Report

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Objective: Fibrous dysplasia (FD) is a developmental tumour-like condition that is characterized by replacement of normal bone by an excessive proliferation of cellular fibrous connective tissue intermixed with irregular bony trabeculae. It may involve only a single bone (monostatic) or multiple bones (poliostatic). Gender prevalence of FD is equal. The monostatic form is more common and affects 20-30 years of age while the poliostatic form has its onset mainly in children younger than 10 years of age. FD of the jaws affects the maxilla more frequently than the mandible and females are affected more than males.

Material Methods: This case report describes its occurrence in the maxilla of a 55 year-old male patient. Patient referred our clinic with complaint of suppuration. The clinical examination revealed swelling and pain on the right side of the face in the posterior maxilla. Radiographically there was a radioopacity in posterior maxilla and maxillary sinus. Cone beam computed tomography was taken due to radiopaque lesion in maxillary bone. In CBCT imagings diffuse opaque lesion was seen in maxilla, zygomatic and sphenoid bone.

Result: Only infected tissue was curetted under local anesthesia and the tissue was sent for histopathological examination. The histopathology showed a final diagnosis of fibrous dysplasia of the maxilla. Patient is following up for 6 months without any symptoms.

Conclusion: Treatment of craniofacial fibro-osseous lesions is highly individualized. Most cases of craniofacial fibrous dysplasia manifest as swellings that cause facial deformity and surgical recontouring after cessation of growth seems to provide the best results.

Keywords : craniofacial fibrous dysplasia

Epidermoid Cyst of The Mandible: A Rare Entity Case Report

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Objective: Epidermoid cyst is a cystic form of teratoma and believed to be derived from trapped embryonic cells along the lines of embryonic closure. Epidermoid and dermoid cysts of the jaws are seen rarely. The formation theories of the intraosseous epidermoid cyst (IEC) are not clear. Dermoid and epidermoid cysts in the mouth are uncommon and account for less than 0.01% of all oral cysts. The great majority arise in the floor of the mouth, but there are rare and usually individual case reports of examples in other sites. The radiographic appearance is similar with unilocular cysts. Surgical enucleation is the suggested treatment method for epidermoid cysts.

Material and methods: A 17-year-old, healthy male was referred by her dentist to our department to clarify the incidental finding of radiolucent lesion of the mandible that were depicted on a routinely performed radiograph. On the orthopantomography, an oval radiotranslucency was depicted on right side of between premolar teeth.

Result: Lesion was enucleated under local anesthesia and the tissue was sent for histopathological examination. The histopathology showed a final diagnosis of epidermoid cyst.

Conclusion: Intraosseous epidermoid cysts are extremely rare in the jaws, mimic as radicular cysts, residual cysts. Interosseous epidermoid cysts should be considered for differential diagnosis of other radiolucent lesions.

Keywords : intraosseous epidermoid cyst, mandible, teratoma

Fibromatosis of Maxilla: A Rare Case Report

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Objective : The objective of this case report is to present a very rare case of fibromatosis with its diagnostic work-up and treatment.

Method : A 52 year old male patient came to our clinic with an asymptomatic swelling on anterior palatal mucosa. The exophytic lesion was pedunculated and overlying mucosa was intact. A CBCT showed that the lesion had also intrabony components. An incisional biopsy was performed. Histopathologic sections revealed spindle cell content and immunohistochemical study showed that S100, NF, Desmin, EMA and CD34 were negatif, vimentin was positif and SMA was focal positif. The histopathologic diagnosis was posttraumatic spindle cell nodule. However, the patient had no history of trauma or surgery related to affected site. Subsequently the lesion was excised, underlying bone was curetted deeply with a rotary bur and involved tooth was extracted under general anesthesia. The wound was let heal with secondary intention. Histopathologic sections showed the irregular spindle cells in the subepitelial area and rare mitosis. Collagen fibers and reactive bone trabeculas were also seen between tumor cells. Immunohistochemical study revealed that, beta catenin was positif; S100 and desmin were negatif and Ki-67 activity was under %1. The new histopathologic diagnosis was fibromatosis.

Results : Postoperative course was uneventful and the palatal defect healed well in 6 months. The patient has been following up for 1,5 years now and no recurrence has occurred yet.

Conclusion : Fibromatosis is a benign fibrous tissue proliferation with an intermediate biologic behavior between a benign fibroma and a fibrosarcoma; that is, like fibrosarcomas they exhibit destructive infiltrative growth and frequently recur, but like fibromas they do not metastasize. It is frequently misdiagnosed because of those characteristics. We also had similar difficulties about the diagnosis. The oral and maxillofacial region, especially maxilla, is an uncommon location for it. Our case was also a very rare one due to its location and some other characteristics.

Keywords : fibromatosis, maxilla, palate

A CONSERVATIVE APPROACH FOR HEMANGIOMA IN THE BUCCAL MUCOSA: INTRA- TUMORAL LIGATION

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Management of hemangiomas include surgical excision with blade or laser, cryosurgery, injection of corticosteroids or sclerosants, embolization and radiotherapy. The technique of intra-tumoral ligation involves occlusion of the vascular channels in the segments of angiomatous mass by multiple interrupted ties. As a consequence intra-tumoral blood flow is interrupted which lead to atrophy of the tumor progressively. A hemangioma measuring 2 x 2 cm in size, located on the buccal mucosa of a 54 year old woman has been present at birth and had gradually increased in size. Under local anesthesia of ring blockage, multiple ligatures were placed around the periphery of the lesion in an attempt to tie the small feeder vessels circumferentially with 3.0 poly(glycolide-co-lactide) absorbable sutures. The procedure was well tolerated and complete recovery was achieved in 2 weeks. Circumferential ligation is a simple non-deforming technique for eliminating or reducing hemangiomas located in easily accessible sites such as the oral cavity.

Keywords : hemangioma, intra-tumoral ligation

Giant Cell Granuloma seen with actinomyces species at an immunosuppressive patient : A Case Report

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Granuloma formation is a chronic inflammatory reaction where macrophage system and other inflammatory cells are involved. After some antigen exposure and processing, T cells, macrophages, epithelioid cells and giant cells are activated to form granulomas. Granulomas are classified to noninfectious granulomas and infectious granulomas.

Pathogenic microorganisms are suspected to be a cause of granuloma in non-inflammatory diseases. Balance between pathogenic microorganisms and defense mechanisms of the host might be important in the special immunologic reaction.

Central giant cell granuloma (CGCG) is a benign bone lesion, which can be locally aggressive or may be asymptomatic in nature.

It is an intraosseous lesion consisting of cellular fibrous tissue that contains multiple foci of hemorrhage, aggregations of multinucleated giant cells, and occasional trabeculae of woven bone.

Clinically these lesions can cause facial swelling, asymmetry, and expansion and perforation of cortical plates and radiologically resorption of roots.

In this poster presentation, a 25 year -old man who has an idiopathic neutropenia and generalize GCG around the mandibular teeth and its surgical treatment and histopathology, microbiology (actinomyces) of the lesions is presented.

Keywords : giant cell granuloma,actinomyces,immunosuppressive

Autogenous Abdominal Fat Transplantation Into Large Temporomandibular Joint Defect Following Removal of Osteochondrom

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Osteochondroma of the temporomandibular joint is a rarely reported condition that most frequently affects the mandibular condyle. Autogenous free fat grafts prevent scar formation by acting as an effective hemostatic agent and space filler that helps prevent the accumulation of blood and serum, which otherwise might be replaced by dense collagen (scar) or osteoid or bone. This article presents a case of osteochondroma of the mandibular condyle in a-year-old man, who was referred to our clinic with facial asymmetry, prognathic deviation of chin, cross-bite to the contralateral side and changes in condylar morphology. We conclude that osteochondroma of the condyle is a slow growing benign tumour with typical clinical and radiological features. It requires surgical treatment, comprising resection of the tumour

Keywords : tmj, osteochondroma, abdominal fat

Simultaneous Implant Placement and Vertical Ridge Augmentation using demineralized freeze-dried bone allograft

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Objective. The aim of this study was to evaluate the combined use of demineralized freeze-dried bone allograft (DFDBA) platelet-riched fibrin (PRF) or rifamycin grafting material when used in conjunction with rigid titanium barrier for vertical augmentation with simultaneous implant placement in a rabbit model.

Study design. The experimental model was the rabbit femur (23), where implants were placed. Twenty three implants, with a diameter of 3.75 mm and a length of 8 mm, were inserted leaving the threads exposed at the 2 mm coronal section. Implants exposed threads were covered with rigid titanium barrier and the titanium barriers were filled with DFDBA (7 rabbits), DFDBA combined with PRF (8 rabbits) or DFDBA combined with rifamycin (8 rabbits). After 4 weeks, the animals were euthanized and bone tissue blocks with the implants and the surrounding bone tissue were removed and processed according to a histological protocol for hard tissues on non-decalcified ground sections. The samples were studied by light microscopy, histometric analysis was performed to assess the percentage of bone in direct contact with the implant surface and new bone formation a statistical analysis of the results was performed.

Results. In the samples analyzed 4 weeks after implantation, the percentage of bone tissue in direct contact with the implant surface for the three groups were 58.43 ± 1.92 % (DFDBA), 68.34 ± 20.37 % (DFDBA – rifamycin) and 80.70 ± 2.55 % (DFDBA – PRF). New bone formation were 36.90 ± 0.94 % (DFDBA), 45.26 ± 0.60 % (DFDBA – rifamycin) and 51.82 ± 0.82 % (DFDBA – PRF). In terms of the percentage of bone contact and new bone formation, groups DFDBA – rifamycin and DFDBA – PRF presented statistically significant differences from group DFDBA ($P < 0.05$). DFDBA – PRF group also presented statistically significant difference from group DFDBA – rifamycin ($P < 0.05$).

Conclusion. In conclusion, the DFDBA – PRF rigid titanium barrier combination presented a percentage of bone contact with the implant surface and new bone formation statistically greater than in the other groups.

Keywords : vertical augmentation, dfdba, prf, rifamycin, rigid titanium barrier

Inferior Alveolar Nerve Lateralization and simultaneous Mandibular Augmentation: Case Report

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Dental implant placement has been a popular option for the treatment of the edentulous jaws in last decades. In such cases, where there is insufficient height or width for implant placement in mandible, there are a few options available for rehabilitation, including short implants, reconstruction with bone grafts and inferior alveolar nerve (IAN) reposition. This report describes the treatment of a patient who had both horizontal and vertical alveolar bone deficiency in the posterior mandible. There was sufficient residual bone for dental implant stabilization so we decided to insert dental implants after inferior alveolar nerve lateralization. But because there were buccal fenestrations of the inserted implants, the bone regeneration with only alone autogenous anterior iliac particulated bone graft was performed. Eight dental implants were inserted totally, as four in the posterior mandible at same surgery. The healing of the intraoral surgical site was uneventful as well as the anterior iliac region. The paresthesia of the lower lip was disappeared in the first week and the gait disturbance was dissolved in the three week period.

After 4 months waiting for osseointegration of the implants and adaptation of the bone graft, fixed prosthetic rehabilitation was done.

In the short term postoperative control and also all through the treatment, there has been no complication either for dental implants or for IAN or for anterior iliac region.

Keywords : iliac, mandible, inferior alveolar nerve, lateralization, transposition, reposition, dental implant

Bifid Mandibular Canal and Clinical Importance: Two Case Reports

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Introduction: Bifid mandibular canals (BMCs) originate from the mandibular foramen and might each include a neurovascular bundle. The detection of the presence of the BMC using CBCT may be crucial for extraction of mandibular third molar determined to be extremely close to the mandibular canal on panoramic radiographs. The aim of the present case report was to draw attention of the presence of BMC before mandibular impacted third molar surgery using CBCT and permitting the surgery with a lower risk of surgical damage.

Case reports: Two patients referred to us for extraction of impacted third molar teeth. At pre-surgical evaluation of panoramic radiographies of the patients, anatomical variations of the mandibular canal were suspected. For further examination, CBCT was taken and BMC was determined at the mandibular impacted third molar region on CBCT images.

Conclusion: The incidence of the BMCs is ranged from %1 to %40 in the literature. The existence of this anatomical variance in surgeries like extraction of third molar, bone harvesting and sagittal split osteotomy may cause unexpected complications such as inadequate local anesthesia, unexpected bleeding or postoperative neurosensory disturbances through damage to the neurovascular bundle. Therefore it is important to confirm the course and location of the mandibular canal and its anatomical variations to prevent unexpected complications prior to the surgical procedures in posterior mandible.

Keywords : bifid mandibular canal, anatomical variation, cbct, mandibular impacted third molar, unexpected complications.

Interdisciplinary Treatment Plan for Missing Maxillary Lateral Incisors

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Treatment planning for missing maxillary lateral incisors is a common clinical predicament encountered by orthodontists and prosthodontists. Three main treatment options exist including: canine substitution; a tooth supported restoration; or a single tooth dental implant. An interdisciplinary approach is important throughout treatment planning, and subsequent treatment can involve dental team members such as an orthodontist, oral and maxillofacial surgeon and prosthodontist. The advantage of using dental implants to replace maxillary lateral incisors lies in excellent success and survival rates, and the lack of need to involve adjacent teeth in a fixed restoration. This article will discuss considerations including a case of a male patient at the age of 22 with missing maxillary lateral incisors treated using single tooth dental implant. The predictability of implant therapy has revolutionized how clinicians treat a wide array of tooth replacement situations, including the problem of a congenitally missing maxillary lateral incisor. Although a number of therapeutic alternatives should be considered, treatment with implants allows the clinician to avoid the preparation of adjacent teeth and provides a predictable and enduring solution to the clinical problem.

Keywords : missing laterals, implant therapy, esthetics.

Measurement of Lip Forces in different malocclusions: Preliminary results

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Objectives: The aim of the study was to investigate the lip force dynamics among the patients with different malocclusions.

Methods: The subjects consisted of 31 patients (23 female and 8 male) diagnosed with different malocclusions. Maximum and minimum lip closing forces were measured with Lip De Cum(®). The changes with time were compared statistically.

The changes with time were compared statistically.

Results: The maximum and minimum lip closing force were measured and there were no significant differences between different malocclusions in the maximum lip closing force and the minimum lip closing force.

Conclusions: This preliminary study suggests that there was no significant difference in the lip closing force between malocclusions. Although the maximum lip closing force in class II group was much more than the other groups in our preliminary results, this study suggested that the maximum lip closing may be measured in more patients with different malocclusions for more accurate results.

Keywords : lip force, lip, malocclusion

Compound Odontoma Associated with Maxillary Permanent Lateral Incisor: A Case Report

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OBJECTIVE:

Odontomas are the most frequently odontogenic tumors of the jaws which are nonaggressive and developmental malformations. They are mixed benign tumors involving both epithelial and ectomesenchymal tissues. Compound odontomas which are located in the anterior region of the maxilla, complex odontomas locate in the posterior areas, especially in the mandible.

CASE:

A 23-year-old male patient reported to the Department of Oral and Maxillofacial Surgery with chief complaint of pain in maxillary left anterior region. He hasn't got medical and family history. Intraoral examination revealed the incisor tooth was rotated and associated with compound odontoma. On the radiographic examination there were multiple small teeth like radioopaque structures at the beside of the lateral incisor teeth's root which were enclosed by a radiopaque line.

RESULTS:

The patient was treated under local anesthesia. We used conservative surgical technique for enucleation of odontoma. After surgery histopathology revealed a compound odontoma. We still keep the patient on regular follow-up period

CONCLUSIONS:

Odontomas are generally asymptomatic and they are often observed during routine radiographic control. Prognosis after treatment is very satisfactory.

Keywords : odontogenic tumors, compound odontoma, maxilla.

Cranio cervico-fasial polystotic fibro-osseous dysplsasia: A case report

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OBJECTIVE

Fibrous dysplasia is a progressive disease which replaces of bone tissue with fibrous connective tissue. Disease can be stopped for a long time without any symptoms. The clinical presentation of patients are different from each other.

CASE

We presented a 38 years old female patient who was applied to our clinic with asymmetry complaint on right corpus mandibula. She had been underwent two facial counter correction, before her latest one. Patient was consulted with Ear, Nose, and Throat Department and Neurosurgery Department. On the neck and paranasal sinus computed tomography we observed that ground glass views on almost all of visserocranium bones and sclerotic bone lesions which were led to loss of height of the C4–C6 spines. After clinical and radiological evaluation of lesions are compatible with polyostotic fibrous dysplasia.

RESULTS

We did not prefer to perform any surgical approach due to the pathologic fracture risk on cervical spine during general anesthesia. The patient was informed about the course of disease and periodical follow-up was recommended.

CONCLUSIONS

Fibrous displasia is a genetic but non familial displasia. Fibrous dysplasia is a benign bone tumor which is a rare disorder of GNAS-1 gene deletion or gene mutation during embryogenesis. The affected areas of bone is weak and can be cause pain and may lead to fracture or deformity. Because of a potential to become malignant transformation periodical fallowing up is very important.

Keywords : polyostotic fibrous dysplasia, computed tomography, servical spine, gnas-1 gene.

Surgical Treatment of a Dentigerous Cyst Associated with Mandibular First Molar: A Case Report

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Objective:

Dentigerous cysts are the most common developmental cysts of the jaws, most frequently associated with impacted mandibular third molar teeth. They can be treated by either enucleation or marsupialization. In this case report we represented a dentigerous cyst which is associated with mandibular first molar tooth and we tried to describe our surgical approach for the treatment.

Case:

52-year-old female patient referred to us with a complaint of a radiolucent lesion that is adjacent to the impacted lower right first molar tooth. It was determined by ortopantomography that was taken at an other medical center. The lesion was showing inflammatory symptoms such as pain, purulent discharge into the mouth, swelling, etc. After radiological and intraoral examination, we determined that the impacted molar tooth and the lesion were infected and exposed to the mouth. We planned to total excision of the lesion and extraction of the impacted tooth under general anesthesia. The tooth was located at the inferior border of the mandible. In order to prevent a possible fracture we fixed a miniplate by two miniscrew to the operation site.

Results:

The histopathologic evaluation of the lesion revealed that the lesion was dentigerous cyst. The postoperative period was uneventful and our patient was able to return to her routine life within a few days. Postoperative fifth month radiological and introral examination shows us that our patient is ready for prosthetic restoration.

Conclusion:

Total enucleation is the first treatment option for dentigerous cysts in order to prevent the relapse and transformation of the capsule into ameloblastoma, squamous cell carcinoma and intraosseous

mucoepidermoid carcinoma. But when the cyst is in very large sizes, it is necessary to take additional measures to avoid from fractures or nerve damages during enucleation.

Keywords : dentigerous cyst, first molar, mandible, miniplate.

A CASE REPORT OF AUTOTRANSPLANTATION OF THIRD MOLAR

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Tooth autotransplantation is a suitable treatment option for tooth replacement when a suitable donor tooth is available. A 17 years old female patient was referred to Abant İzzet Baysal University, Faculty of Dentistry, Department of Oral and Maxillofacial Surgery with the complain from her left mandibular first molar tooth. The panoramic radiograph was revealed that the left mandibular first molar tooth has an extensive caries from crown to the furcation and the left mandibular third molar's root tip was still in the apexogenesis phase. The left mandibular first molar and third molar teeth have been extracted and the left mandibular third molar was transplanted in the first molar's socket immediately. Transplanted tooth was stabilized with a splint for one week. The patient was reassessed for the control on the 7th day, 1st month and 7th month postoperatively. Transplanted tooth was found to be normal root development and no mobility.

Keywords : autotransplantation, third molar

Surgical vs. Local Medical Treatment of Bilateral Central Giant Cell Granulomas in the Mandible

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A 54 years old female patient was referred to our clinic with compliance of bilateral mandibular swelling. After clinical and radiological examination, bilateral tumoral lesions at the premolar – molar region of the mandible were shown. The incisional biopsies were performed and the histopathological diagnosis was the central giant cell granuloma. On the right side of the mandible, surgical excision and curettage were performed for the treatment of the lesion. On the left side, central giant cell granuloma were treated with intralesional infiltration of a solution of Kenacort-A (10 mg/mL, triamcinolone aqueous suspension) and either Lidocaine 2% with epinephrine 1:200,000, 50% mixture by volume. Before treatment, an endocrinologist evaluated the patient to rule out hyperparathyroidism. The procedure was continued for 6 weeks with 6 ml. Kenacort injection for a week. After one year follow-up, two dental implants were inserted into the mandible. The patient is under follow-up for 2 years.

Keywords : central giant cell granuloma, intralesional infiltration, curettage

Life Threatening Misdiagnosed Lateral Pharyngeal–Peritonsillary Abscess : A case report

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Infections of the parapharyngeal spaces may be life threatening with rapid progression to airway collapse and mediastinum. Symptoms of maxillofacial infections may mimic temporomandibular dysfunctions like chronic facial pain; trismus and decreased inter-incisal opening; which can lead to misdiagnosis of the spatial abscess. We report a management of a neglected case of the lateral pharyngeal space abscess originating from the 1st and the 2nd mandibular molars.

Keywords : lateral pharyngeal, peritonsillar, space, abscess, drainage

Nasopharyngeal Carcinoma Mimicking Temporomandibular Disorder Associated Mouth Opening Restriction; Case Report

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Aim

Trismus is defined as a progressive tonic contraction of the muscles of mastication that results in decreased mouth opening. Nasopharyngeal carcinoma (NPC) is a tumor arising from the epithelial cells that cover the surface and line the nasopharynx. Trismus at initial diagnosis of NPC is mainly caused by either the extension of primary tumour to the masticatory muscles or by the tonic spasm of the muscles of mastication due to the invasion of the motor branch of the trigeminal nerve which signals a more advanced primary disease. The aim of this study is to present the differential diagnosis of a patient whom has a trismus symptom that was generally perceived as a TMD symptoms

Case and Method:

The main complaint of a 21-year-old male patient was the restriction in the mouth opening. His medical history was significant for numerous unsatisfactory treatment attempts with an initial diagnosis of temporomandibular disorder (TMD) by ENT specialists. The clinical examination revealed trismus associated with cervical lymphadenopathy and weight loss. A subsequent Computed Tomography scan revealed the tumor (boyutunu yazalım) in posterior nasopharynx including rosenmuller fossa. Patient was immediately consulted to the oncology department where he has received chemotherapy as an initial treatment protocol.

RESULTS:

Nasopharyngeal tumors may be the primary etiology of trismus, so a comprehensive clinical and radiological assessment is mandatory for a differential diagnosis from other benign conditions associated with trismus.

Keywords : trismus, nasopharyngeal carcinoma, temporomandibular disorders

Dental Implant Treatment After Alveolar Distraction Osteogenesis: A Case Report

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OBJECTIVE: Distraction osteogenesis (DO) is a technique of generating new bone by stretching the callus. Distraction forces applied to bone also create tension in the surrounding soft tissues initiating a sequence of adaptive changes termed distraction histiogenesis. DO is also used for bone augmentation as well as correcting the craniofacial deformity.

METHODS: A 28-year-old male patient was admitted to our clinic for dental implant treatment. After the clinical and radiographic examinations, edentulous area with vertical defect was observed in the left maxillary anterior region. The patient had a history of cyst operation and tooth extraction in this region. Due to limitations in the soft tissue, alveolar distraction was planned. Alveolar distraction was completed successfully. After 4-month healing period, dental implants were placed.

RESULTS: No complications were recorded during the treatment. After the consolidation period, sufficient amount of bone and soft tissue has been provided and the implants were placed with sufficient primary stability.

CONCLUSIONS: DO is a successful method applied in the presence of inadequate bone and soft tissue. Recently, this technique has been gained more popularity in bone augmentation before dental implants as well as treatment of craniofacial deformities.

Keywords : distraction osteogenesis, dental implants

Transoral Excision of a Large Submandibular Sialolithiasis: A Case Report

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Objective:

Sialolithiasis is one of the most common diseases of the salivary glands. The majority of sialoliths occur in the submandibular glands then parotid and sublingual glands respectively. Transoral approach for removing the lesion is among the surgical treatment options and it is recommended for the palpable sialoliths in the anterior localization and when the sialolith is not far away more than 2 cm from the duct orifice. Here we represent a case that we treated by excising the sialolith under local anesthesia.

Methods:

A 44-year-old female patient referred to our clinic with the complaints of swelling and pain at the right submandibular region during eating. By the anamnesis of the patient we learned that these complaints were available since 6 months. At first she has referred to Ear, Nose and Throat (ENT) Department. First diagnosis was infection and antibiotherapy was applied to her but the swelling and pain during eating didn't exceed. Then she was assessed by computerized tomography and a calcsified mass was determined near the submandibular duct orifice. We evaluated the tomography and we saw sialolith (0,5 x 2 cm in size) in the right Wharton duct. We planned to remove it under local anesthesia by intraoral approach. We reached the sialolith and removed it then we inserted a 3 cm length serum pipe to the Wharton duct in order to ensure the drainage of the saliva. The wound was closed primarily.

Results:

The histopathologic evaluation confirmed that the lesion as sialolithiasis. The postoperative period was uneventful and the patient fully recovered. She is in the follow-up period now.

Conclusion:

When sialoliths cause obstruction of the saliva glands or ducts the symptoms such as swelling, pain or enfection are expected. The treatment aims the restoration of the normal salivary secretion. Intraoral removal of stone and resection of the gland are among the most preferred treatment options. Our conventional surgical approach was

very succesful and solved the problem. We believe that intraoral approach must be considered before deciding any other surgical method for removing the sialoliths in the salivary ducts.

Keywords : transoral excision, submandibular sialolithiasis, computerized tomography.

Surgical Management and -3- Years Follow Up of a Large Radicular Cyst of the Posterior Maxilla: A Case Report

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Radicular cyst is the most common inflammatory odontogenic cystic lesion of the jaws. It usually originates as sequel to a periapical inflammatory process, following chemical, physical or bacterial injury. They are generally symptomless and are diagnosed during routine radiologic investigations. It has a male sex predilection, with the maxillary anterior region as the most common site of involvement. The complications associated with radicular cysts include pathologic bone fracture, loss of permanent tooth and bone deformation. The treatment of radicular cysts includes conventional nonsurgical root canal therapy when lesion is localized or surgical treatment like enucleation, marsupialization or decompression when lesion is large. This case report presents a large radicular cyst of the posterior maxilla which cause superior displacement of the maxillary sinus in a 36 year-old female patient along with its management and follow-up.

Keywords : odontogenic cyst, maxilla, radicular

INFERIOR ALVEOLAR NERVE TRANSPOSING IN A SITUATION WITH INADEQUATE BONE HEIGHT: A CASE REPORT

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Increased life expectancy of the population rises the demand for oral rehabilitation with implants. Progressive bone resorption often occurs following tooth loss or extraction, resulting in a moderately to severely atrophied mandible. Often, the bone height posterior to the mental foramen is inadequate to allow proper placement of endosteal implants and the use of optional fixture lengths without potentially injuring the inferior alveolar nerve. The inferior alveolar nerve remains an anatomical obstacle for implant insertion in the posterior part of the mandible. To resolve this issue several alternatives can be used such as installing implant in vestibular portion of the mandibular canal, use of short implants, distraction osteogenesis, bone grafts and transposition and lateralization of the inferior alveolar nerve. We present a case of severe mandibular atrophy in which inferior alveolar nerve repositioning and implant placement were carried out. Such nerve repositioning may constitute a treatment alternative in patients with severe posterior sector mandibular atrophy and a consequent risk of dental nerve damage during the placement of dental implants.

Keywords : nerve transposing, inferior alveolar nerve, dental implants

The Temporalis Muscle Flap In Reconstruction Of a Non-operated Cleft Palate : A Case Report

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OBJECTIVE: The temporalis muscle flap, either in whole or in part, is a traditional and time-honoured technique for a variety of reconstructive procedures in the oral and maxillofacial region. Its size and proximity make it particularly useful for obturation of maxillary defects. The purpose of this presentation is to report the use of temporalis muscle flap for reconstruction of a non-operated palatal cleft.

METHODS: 45-year-old male patient had an extensive palatal defect. Reconstruction of cleft palate with temporalis muscle flap was performed under general anaesthesia with nasotracheal intubation. For palatal reconstruction, a bony window on the lateral sinus wall was created to connect the sinus cavity to the temporal fossa. The flap was sutured to the surrounding oral mucosa to complete the reconstruction.

RESULTS: The patient's defect was successfully reconstructed, however small perforations located in the posterior and anterior palatal region need for prosthetic obturation of the defect. There were no incidents of flap necrosis, facial nerve deficit, or long-term changes in mandibular range of motion.

CONCLUSION: The temporalis muscle flap for palatal reconstruction has low morbidity and few complications, and is a useful technique for repairing the large untreated clefts.

Keywords : palatal cleft, temporalis muscle flap, reconstruction

An Unusual Foreign Body in Maxillary Sinus: A Watch Strap Pin

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OBJECTIVE: Migration of foreign bodies into the maxillary sinuses is a relatively frequent complication in dental clinical practice. Most of the cases of foreign bodies in maxillary sinus are related to iatrogenic dental manipulation and only a few cases with non-dental origin are reported. In this paper we report a very interesting case.

METHODS: A 18-year-old male patient was admitted to our clinic with diagnosis of a foreign body in his left maxillary sinus. After the clinical and radiographic examinations, we detected a watch strap pin in his left maxillary sinus. We received his history and learned that he pushed it inward by mistake while he was trying to take off the food from decayed cavity of his teeth. Foreign body was removed by Caldwell-Luc operation and oro-antral communication was closed with buccal sliding flap.

RESULTS: The treatment of patient was completed successfully. In post-operatif period, we did not observe any complication.

CONCLUSIONS: Early removal of foreign body in these patients prevents maxillary sinusitis and possible complications.

Keywords : maxillary sinus, foreign body, caldwell-luc operation

Reliability of the magnification factor on panoramic radiographs for pre-operative assessment of dental implants

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INTRODUCTION

Determine the location of anatomical structures preoperatively such as; mandibular canal, mental foramen, maxillary sinus and nasal floor is essential to complete the operation without any complication. Although CBCT is gold standart for planning implant treatment panoramic radiographs are commonly used for diagnostic intention before dental implant surgery because of their low price and little radiation dose .This study was designed to assess the efficiency and exactness of digital panoramic radiograph for planning before implant surgery. With this study we aimed to evaluate vertical and horizontal magnification rate by measuring the length and width of dental implants on postoperative radiograph in different segments of mandible and maxilla. We compared results of vertical and horizontal measurements with sizes provided by the manufacturer.

MATERIALS AND METHODS

This study was conducted on 119 patients (50 male, 69 females). Between June 2014 and December 2014, 408 implants (165 in males, 243 in females) were consecutively placed at the Oral and Maxillofacial Surgery Clinic in the Izmir Katip Celebi University Faculty of Dentistry. Edentulous patients, the length of the inserted implants unknown, patients without postoperative digital panoramic radiograph were excluded from this study. The mean age of patients was 51.01 ± 10.3 years.

After implant surgery, based on the length and width of the implant fixture actually placed, the length and width of implants shown on post-surgical digital panoramic radiographs were measured and the magnification rate was calculated according to segment of maxilla and mandible.

RESULTS

The length of implant fixture planned before surgery was on average 11.65 ± 3 mm, and the length of the actually placed fixture was shown to be an average of 11.76 ± 1.77 mm. The magnification rate of the width of the placed implant fixture on the digital panoramic radiography system was an average of $4.40\% \pm 5.68$ and the magnification rate of the length was shown to be $4.79\% \pm 2.59$.

The magnification rate of the width was arranged as follows; the mandibular anterior region was the largest, followed by the mandibular premolar area, mandibular molar, maxillary molar, maxillary premolar and maxillary anterior areas. The magnification rate of the length was arranged as follows; mandibular molar area, maxillary molar, mandibular anterior, maxillary premolar, mandibular premolar and mandibular anterior area.

CONCLUSIONS

The digital panoramic radiography system is an effective method that is simple and inexpensive for pre-implant diagnosis and establishing treatment protocol, and it uses a relatively low radiation exposure. The vertical assessment can provide useful, accurate information, however, cross-sectional information cannot be obtained.

Keywords : dental implants, radiographic magnification, radiographic examination

Treatment of a Large Maxillary Cyst with Decompression

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Backgrounds : Dentigerous cyst is the most common developmental cysts of the jaws. Conservative treatment is very effective to this entity and aims at eliminating the cystic tissue and preserving the permanent tooth involved in the pathology. In large cysts, an initial decompression can reduce the size of the bone defect before definitive enucleation.

Patient : A healthy 9 year old male child was affected by a large lesion at the right side of the maxilla associated to tooth 13. The boy presented an facial asymmetry with expansion of upper lip on the right side that caused elevation of the nasal wing. Clinical examination revealed labial swelling over right deciduous teeth and the area was tender to palpation . The radiographic findings revealed a well delimited radiolucent area, measuring approximately 20 mm in its largest diameter, with sclerotic margins, completely associated with the crown of the involved permanent teeth.

Methods : . After consultation with the patient, his parents and various specialists, marsupialization with decompression was selected as an alternative approach. Specifically, the treatment plan called for decompression over a minimum of 12 weeks, followed by enucleation of the residual lesion.

Conclusion : Surgical enucleation of a large cystic lesion may lead to damage of other teeth or anatomic structures like the floor of the nose or the maxillary sinus . Therefore, treatment should begin with the more conservative approach of decompression, to reduce the size of the lesion, followed by cystectomy.

Keywords : decompression , marsupialization , dentigerous cyst

Short-term Results of Botulinum Toxin Type A Treatment for Temporomandibular Joint Dislocation

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OBJECTIVE: Injection of botulinum toxin type A into the lateral pterygoid muscles is gained popularity in recently for treatment of TMJ dislocations. We aimed to investigate short-term clinical outcomes after one session injection of botulinum toxin type A into the lateral pterygoid muscles for treatment of TMJ dislocations.

METHODS: Eleven patients with chronic recurrent TMJ dislocation diagnosed with CBCT included in the present study. The age of the patients ranged between 16-38 years old. Pain, recurrence of open lock, joint sounds, and maximum mouth opening were assessed at baseline, at 1 month after the injection, and after 8-months follow-up.

RESULTS: There was statistically significant decreases in general pain complaints, maximum mouth opening, and recurrence of open lock after injection, and they remained relatively same during follow-up period. Joint sounds decreased after the injection and during the follow-up period, but this decrease reached statistically significant level only during follow-up period.

CONCLUSION: Results of this short-term study showed that injection of botulinum toxin type A into the lateral pterygoid muscles for treatment of TMJ dislocations produced favorable clinical outcomes in short-term.

Keywords : botulinum toxin type a, temporomandibular joint dislocation

Short-term Clinical Results of Botulinum Toxin Type A Treatment for Masseter Hypertrophy

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OBJECTIVE: Injection of botulinum toxin type A into masseter muscles for the treatment of hypertrophy goes back up to 1994, and gained popularity in recent years among clinicians. We aimed to investigate short-term clinical outcomes after one session injection of botulinum toxin type A for treatment of masseter hypertrophy.

METHODS: Sixteen patients with masseter hypertrophy, who underwent one session botulinum toxin Type A injection, were included in this study. The age of the patients ranged between 16-46 years old. Pain, recurrence of closed lock, bite force, and severity of bruxism were assessed at baseline, at 1 month after the injection, and after 8-months follow-up.

RESULTS: There was statistically significant decrease in pain and recurrence of closed lock after injection, and they showed insignificant changes during follow-up period. Bite force was decreased significantly after the injection, but it showed significant increase during follow-up period. A significant reduction in the severity of bruxism after the injection was reported by the patients.

CONCLUSION: Our findings suggested that injection of botulinum toxin type A can be used as a safe and promising method for the treatment of masseter hypertrophy.

Keywords : botulinum toxin type a, masseter hypertrophy

Unilateral Eminectomy for the Treatment of Mandibular Dislocation: A Case Report

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OBJECTIVE: Mandibular dislocation is a condition in which condyle is positioned anteriorly to the articular eminence and occurs in a chronic or acute form. It is extremely uncomfortable for the patients. It is a stressing and highly hard situation that may occur as a result of daily activities such as yawning, laughing, orduring events that require keeping the mouth open for along time. The aim of this presentation is to report a case of chronic mandibular dislocation that was successfully treated with eminectomy.

METHODS: A 43 year old male patient with edentulous jaws suffered from dislocation of the temporomandibular joint (TMJ) for over 1.5 year was refered to our clinic. Tomographic examination revealed that right condyle was located anteriorly to the articular eminence and identified that there wasn't ankylosis between the bone structures. Surgical repositioning of the mandibular condyle and temporal bone eminectomy were carried out under general anaesthesia. An Alkahat and Bramley's modification of preauricular incision was used to expose the eminence and TMJ.

RESULTS: Anterior dislocation is caused by dysfunction of components of the TMJ. Many surgical procedures have been proposed for the treatments of mandibular dislocation. The most important advantage of this method is there is no need bone transplantation or placing any kind of foreign body in the form of plate.

CONCLUSION: Eminectomy is effective for the treatment of recurrent mandibular dislocation in long-term.

Keywords : eminectomy, mandibular dislocation, tmj

Maxillar Adenomatoid Odontogenic Tumor: A Case Report

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OBJECTIVE: The adenomatoid odontogenic tumor is a unique lesion involving the jaws. It is regarded by some authors as a benign neoplasm and by others as a developmental hamartoma. Adenomatoid odontogenic tumor are often detected on routine radiographic evaluation as an asymptomatic intraosseous lesion associated with an unerupted permanent tooth. When intraosseous growth causes cortical expansion, it may present as a slowgrowing, painless, bony mass. The radiographic appearance is that of a well defined, unicystic radiolucency associated with focal areas of radiopacity. Treatment is with conservative local excision and recurrences are unusual.

METHODS: A 16-year-old female was referred to the Oral and Maxillofacial Surgery Department of the Suleyman Demirel University, Isparta, Turkey, complain to swelling the left maxilla anterior and premolar area. The radiographs showed unilocular radiolucency approximately 4 X 4 cm in maxilla with expansion and thinning of all its bony walls and with calcification area. An incisional biopsy was taken under local anesthesia. The histological features were showing reversed polarity columnar ameloblasts like cells, stellate reticulum-like epithelial cells and odontoma. Histopathological examination was reported as adenomatoid odontogenic tumor and odontoma. The enucleation of the cyst was done under local anaesthesia along with the removal of 21,23,24,25 numbered teeth. The incision was closed and sutured.

CONCLUSIONS: The adenomatoid odontogenic tumor is well encapsulated and showed an identical benign behaviour. Therefore enucleation and curettage produces excellent outcome without recurrence.

Keywords : adenomatoid odontogenic tumor, odontoma, enucleation

Alveolar Ridge Augmentation with Combination of Autogenous Block Graft and Allograft by Using PRP

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OBJECTIVE

Dental rehabilitation of edentulous patients with oral implants has become common practice with enviable long-term results. On the other hand, problems about local conditions of the alveolar ridge like atrophies of the jaws, periodontal diseases or trauma defects may cause insufficient bone volume, which may interfere with implant placement. Although numerous additional surgical reconstructive procedures as autogenous, allogeneous, xenogeneous, alloplastic grafts or their combinations can be used to provide sufficient ridge volume; the use of autogenous bone grafts are accepted as the gold standard. Additionally, platelet-rich plasma (PRP) has positive effects for bone grafts with its osteoinductive potential.

METHODS

A 39-year-old female patient was referred to Istanbul University, Faculty of Dentistry, Department of Oral and Maxillofacial Surgery for dental implant surgery in the left posterior mandibular region. The patient was diagnosed with the loss of left mandibular first molar tooth and insufficient alveolar ridge volume after intra-oral examination, panoramic x-ray and CT scan results. Autogenous block graft together with allograft, PRP and resorbable membran were decided to apply for the surgery. Left mandibular ramus was chosen as donor site for autogenous block type graft because of little volume loss and good incorporation. Both the donor and recipient surgical sites were anesthetized by using an appropriate technique. Recipient site's preparation involves attached tissue incisions with full thickness broad base flap to allow maintenance of blood supply and releasing procedures to facilitate tension-free closure. Multiple perforations were made on the cortical bone by a small round bur in order to facilitate the revascularization, influx of growth factors and platelets. Block bone graft was obtained by using the standard method from the donor site. The autogenous block graft were measured and adapted according to the recipient area, then delivered and stabilized in this area with mini-screws. Allograft was used as a filler for the peripheral surfaces. Finally, PRP and resorbable membranes applied before the flap closure.

RESULTS

Surgical procedures were completed successfully without any complications. Soft tissue healing and sufficient alveolar ridge volume were diagnosed at postoperative controls.

CONCLUSIONS

Reconstruction by using autogenous block grafts from ramus and allografts together with PRP and resorbable membranes can provide sufficient bone volume to restore alveolar defects with high success rates.

Keywords : dental alveolar augmentation, prp, block graft

Conservative management of a unicystic ameloblastoma invading maxillary sinus: A case report and review of literature

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The term unicystic ameloblastoma refers to a cystic lesion that shows gross features of a jaw cyst on clinical, radiographic examinations. Conversely, the histologic examination reveals a typical ameloblastomatous epithelium lining part of the cyst cavity, with or without luminal and/or mural tumor growth. High incidence of cortical perforation, tooth resorption, increase in lesion size and bony destruction calls for an immediate and accurate diagnosis as well as an effective treatment. Several treatment approaches ranging from conservative modalities such as enucleation, to more radical ones including marginal or segmental resections have been previously proposed for the management of unicystic ameloblastoma. The aim of this work is to report a rare case of unicystic ameloblastoma of the maxilla invading the entirety of the ipsilateral antrum. The lesion was initially treated by marsupialization and subsequent enucleation, following an initial incisional biopsy that identified the lesion as a radicular cyst. The patient was observed to be fully recovered in follow-up clinical and radiographic examinations and currently remains symptom-free after one year. In addition to the case report, relevant diagnostic problems and choice of treatment of unicystic ameloblastoma are presented along with a review of the literature.

Keywords : unicystic ameloblastoma, maxillary, conservative

CONSERVATIVE TREATMENT OF INTRAORAL HEMANGIOMA

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Hemangioma is a benign lesion which is characterised by increased number of normal or abnormal vessels filled with blood. They are most common tumors of infancy, occurring in as many as 2.6% of neonates and 12% of children aged 1 year. In the oral cavity, the bones and the muscles are affected as well as the mucosa and the skin. The morbidity of oral hemangiomas ranges from surface discoloration to life-threatening functional compromise of the airway or hemorrhage. Diagnosis and management of oral vasoformative tumors and oral hemangiomas span a wide range of options. Treatment of oral vasoformative tumors can be divided as medical treatment and surgical or invasive treatment. Here we present a case of male patient who has hemangioma in the buccal mucosa and treated by Nd:Yag laser. The aim of this poster presentation is to emphasise the successful treatment without pain, swelling and bleeding by Nd:Yag laser. The operation is sterile, hemostatic and there is no need for suture. Clinicians should be aware that these lesions can be treated conservatively.

Keywords : hemangioma, laser, diagnosis

Accidental Displacement of Impacted Mandibular Third Molar into the Submandibular Space: A Case Report

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INTRODUCTION

During the extraction of mandibular third molars some complications such as infection, bleeding, nerve injuries, trismus and accidental displacement of teeth or roots to the facial tissue spaces can occur. Accidental displacement of impacted mandibular third molar is a relatively rare complication, but may cause severe tissue injury and medico legal problems. In this report surgical management of accidental displacement of impacted mandibular third molar to the submandibular space is presented.

CASE REPORT

A 32-year-old female patient was referred to our clinic with a complaint of persistent swelling and pain on the left side of the face. In history, the patient underwent extraction of left mandibular impacted third molar by a general dental practitioner four weeks ago. However, the extraction attempt was not completed. Clinical examination revealed trismus and swelling on the submandibular region. Panoramic and Cone Beam Computed Tomography (CBCT) evaluation showed that the related tooth was displaced to the submandibular space. The displaced tooth in the submandibular space was removed via submandibular approach under general anaesthesia. Postoperative healing was uneventful except a mild weakness of the left perioral muscles, which resolved completely after one month.

DISCUSSION

Accidental displacement of a lower third molar to the submandibular space is an uncommon, but potentially serious complication. The difficulty of impacted mandibular third molar extraction should be evaluated carefully before the procedure. It is important to determine the exact localization of the tooth by CBCT when it is displaced to facial space. The patient should be referred to an oral and maxillofacial surgeon in the earliest time to avoid additional complications.

Keywords : impacted tooth, submandibular space, displacement

Gow Gates Nerve Block Versus Conventional Infiltrative Anesthesia for TMJ Arthrocentesis

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Purpose: The aim of this study was to assess the efficacy of Gow Gates Nerve Block (GG) during arthrocentesis alternatively to extraoral techniques.

Patients and Methods: Twenty patients undergoing arthrocentesis were included in the study. The patients were randomly divided into two groups: arthrocentesis achieved by conventional methods (AC), arthrocentesis obtained by Gow Gates Nerve Block (AGG). GG maintained by injecting the anesthetic solution intraorally to the mucosa on the mesial of the mandibular ramus, just distal to the height of the mesiolingual cusp of the maxillary second molar, following a line extraorally from the intertragic notch of the ear to the labial commissure of the same side. The recordings of visual analog scales at preoperatively and postoperative follow-up 15, 30 minutes, 1, 2, 3, 8, 12, 24, 36 and 48 hours, 1, 3, 6 months were enrolled. Ratio of successful anesthesia, time for onset of complete anesthesia, satisfaction of the patients and the surgeon were evaluated.

Results: Successful anesthesia for TMJ were provided by Gow Gates nerve block. Gow-Gates anesthesia needed more time to onset though was less painful.

Conclusion: Comparative studies have given credibility to the technique of AGG by showing that it is predictable, accurate, simple and safe to use.

Keywords : gow gates nerve block, arthrocentesis, tmj

Reversal Of Local Anesthesia By Using Ondansetron: A Randomized, Placebo Controlled, Double-Blind Phase III Study

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OBJECTIVE

Local anesthetics represent the widely used drugs in dental practice. Though normally of minimal concern, residual soft tissue anesthesia may result in injury, either self-inflicted (eg, biting) or secondary to thermal or chemical burns. Use of a potent and safe antagonist agent for local anesthetics may be preferable in these situations. But there is no available agent described as specific local anesthetic antagonist up to date.

Ondansetron is a selective 5-hydroxytryptamine type 3 (5-HT₃) receptor antagonist that has been introduced to clinical practice as an antiemetic for cancer treatment-induced and as a rescue antiemetic in surgical patients. Our systematic search of the National Library of Medicine (PubMed) did not produce any reports on the effect of ondansetron on the peripheral local tissue analgesia induced by local anesthetic injection. Our previous animal studies suggest that Ondansetron has local anesthetic antagonist properties. We hypothesize that ondansetron reverses the local anesthetic effects when applied with the same area with local anesthetics.

In the present study the authors conducted, Phase III clinical trials to evaluate the efficacy and safety of ondansetron in shortening the duration of local anesthesia on soft-tissue. The study involved 32 subjects who received commercially available local anesthetic solutions containing vasoconstrictors for mental nerve block.

METHODS

The prospective, randomized, double-blinded, placebo controlled Phase III clinical trial protocol was approved by the Institutional Review Board, and written informed consent was obtained from all participants. On completion of the dental procedure, 32 subjects randomly received ondansetron or a saline injection in the same site as the local anesthetic injection. The primary efficacy endpoint was time to recovery of normal sensation in the lip. The secondary efficacy endpoint was time to recovery of normal

motor function in the lip. The primary data are reported in terms of duration of sensory and motor block. Adverse events, injection pain, or vital signs were recorded. Statistical comparisons were made using the Mann–Whitney U test. A p value of $<.05$ were considered statistically significant.

RESULTS

Ondansetron significantly ($p < .05$) reduced duration of local anesthesia on the soft tissue. The authors noted no differences in adverse events, injection pain, or vital signs, and no signs of skin inflammation, discoloration or irritation were noted at the sites of injection.

CONCLUSIONS

This is the first clinical study showing that ondansetron decreases the duration of local anesthesia. The study indicate that ondansetron, might serve as a prototype molecule for development of a novel series of antagonist of local anesthetics. Future studies should be carrying out to clarify the effects and optimal doses of ondansetron on effect of local anesthetics.

Keywords : dental, innovation, local anesthesia, phase III study, reversal agent, ondansetron

Conservative Approach to the Juvenile Ossifying Fibroma of the Mandible: Case Report

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Juvenile ossifying fibroma is highly aggressive and has a strong tendency to recur. Because of this high recurrence rate, many authors suggest radical en bloc resection. But to avoid damage to the inferior alveolar nerve and by the encourage of the patient cooperation and motivation for follow up, we performed conservative treatment as enucleation of the tumoral mass with the curettage of the spongy bone till the cortical plates around the tumoral mass. The inferior alveolar nerve stayed intact in the basis of the tumoral cavity. The postoperative period was uneventful. In the follow up period of the patient, where it could be exhausting because of the difficulty of the cavity cleaning and packaging in an eight years old boy, it was just the opposite so that the patient was eager to be a part of the treatment.

There has been no evidence of recurrence after 6 months. The healing of the defect site with newly formed bone was observed at the end of this period. As a conclusion especially in younger children, the conservative treatment could be encouraged whilst the follow up period should be strict.

Keywords : juvenile, ossifying, fibroma, benign, tumour, mandible, child

Sinus Floor Augmentation with Autogenous Bone Block Graft: Technical Note

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The gold standard of bone grafting procedure is the autogenous bone grafts. In the sinus floor augmentation, it is recommended to use autogenous bone graft alone or mixed it with xenograft or alloplastic material to achieve enough volume to restore the alveolar height. It has been widely accepted using bone graft material as a small chips in the sinus floor augmentation and sealed the lateral wall window with collagenous membrane. In our novel technique, the lateral sinus wall window is prepared like a circle with the smaller diameter of the trephine bur that you will used to harvest from iliac crest. After you get the block bone grafts form iliac crest with trephine bur, you can get spongius particulated bone chips as you need from inside the socket. As you augmentate the sinus floor with this spongius bone particle grafts, the cortico-cancellous block grafts were adapted tightly with light hammer strokes.

The aim of the lateral wall sealing with autogenous bone block graft is to stop epithelial migration into the augmentation area and to diminish collagene membrane usage.

The short and longterm postoperative controls and dental implant insertion procedures were all uneventfull in five cases. There has been no complication, nor implant failure in any case. As a result, the autogenous bone block grafts to secure sinus lateral wall window can be used safely.

Keywords : implant, sinus, lifting, block, graft, trephine, iliac, autogenous

SUPERNUMERARY TOOTH IN SUBLINGUAL LODGE: AN UNUSUAL CASE

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In dentoalveolar trauma patients, teeth may penetrate into the soft tissues and cause severe complications. Trauma-related penetration of teeth into the maxillary sinus, frontal sinus, pyriform sinus, lower lip, tongue and soft tissues of the head and neck have been reported. In this presentation a 37-year-old male patient who had a traffic accident in childhood and his unintentionally diagnosed supernumerary teeth during clinical and radiological examination penetrated into sublingual lodge was described. The surgical procedure was also presented.

Keywords : supernumerary teeth, dentoalveolar trauma

ANESTHESIC APPROACH FOR ORAL SURGERY PROCEDURE OF PATIENT WITH EPIDERMOLYSIS BULLOSA

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OBJECTIVE

Epidermolysis bullosa (EB) is a condition characterized with bullas of the skin and mucosal membranes caused by friction, minimal traumas and can increase with heat. It is a congenital, hereditary disease which abnormal healing results with contracted scars and erosion. Skin is primarily affected however involvement of upper gastrointestinal system mucosa is often. Whether diagnostic, treatment or anesthesia, it is likely patients will require different procedures in certain phases of their lives; every process can result with new bullas. We present our anesthetic approach to patient with EB who required minor oral surgery procedures.

CASE

19 year-old patient admitted to our clinic with aesthetic complaints. Bullas were widespread on all extremities and joints. He had amelogenesis imperfecta, which affected all teeth. Molars in both jaws were unerupted. Operation was planned under general anesthesia with nasotracheal intubation. After 6 hours fasting patient was taken to operation without premedication. Instead of tourniquet, hand pressure over the vein trace was used; peripheral venous catheterization was achieved with 22-gauge needle. Wet padding was used under the blood pressure cuff. Sections of the electrocardiogram pallets, with no gel, were cut off and remaining pallets were immobilized with silk plaster. Single use probe with no pressure was used for fingertip oxygen saturation monitorization. Anesthesia induction was achieved, nasal decongestant spray was applied, patient was intubated without complication using McCoy laryngoscope and special production 7.0 nasotracheal tube. Eye pomade was applied, eyes were covered with wet padding, possible pressure areas; like head and heels were supported with pillows. After the procedure patient was extubated after 4 minutes with adequate respiration. Patient became hemodynamically stabile, was sent to service in good condition. New bulla formation was observed on the nose where mask was applied. He was discharged the second day.

DISCUSSION

Literature concerning EB patients requiring extremity reconstruction, pseudosyndactyly procedures, esophageal reconstruction, gastrostomy, colon interpositioning are common however there are few literature concerning dental procedures under general anesthesia. We emphasize the importance of detailed preoperative evaluation of EB patients due to risk of esophageal stenosis, dehydration, malnutrition, anemia, hypoalbuminemia, electrolyte imbalance, thrombocytosis and infections; anesthetic selection for anesthesia induction and maintenance should be attentive because of increased porphyria, myasthenia gravis and muscular dystrophy probability; the need of perioperative alertness for possible traumas. Minimal attempts with optimal monitorization is required.

Keywords : epidermolysis bullosa ,minor oral surgery , anesthetic approach

A Patient With Partial Maxillectomy Rehabilitated With Implant-supported Hollow Bulb Obturator Prosthesis: A Case Report

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INTRODUCTION

Maxillofacial defects are caused by trauma, tumor or congenital deformations. The rehabilitation of patients with acquired defects of maxilla is a challenge in terms of reestablishing oronasal separation. Obturator prosthesis is most frequently the choice of treatment. Retention of the obturator is difficult because of enhanced weight of the prosthesis and poor border seal associated with it. The placement of dental implants can support the stability and retention of prosthesis.

CASE REPORT

A 70-year-old male patient was referred to our clinic with a complaint of deficiencies in speaking, swallowing and mastication after unilateral maxillectomy. The patient's medical history revealed that he was diagnosed with squamous cell carcinoma of right maxilla for which a unilateral maxillectomy was done followed by post surgical radiation therapy a year ago. After clinical and radiographic evaluation a sinus augmentation was performed and the same time 5 osseointegrated dental implants were placed in maxilla. Following a 8 month healing period, the patient rehabilitated with implant-supported hollow bulb obturator prosthesis. The last follow up of the patient was 2 years after insertion of the prosthesis. No signs of failure associated with the implants were detected and the patient was functioning well with his prosthesis.

CONCLUSION

The rehabilitation of patient with maxillary resection is a challenging situation. In such cases, the primary aim should be construction of an implant-supported obturator prosthesis with adequate retention, stability and peripheral seal.

Keywords : dental implant, hollow bulb obturator, implant-supported obturator

Conservative management of a case of unicystic ameloblastoma

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Ameloblastomas are locally aggressive, benign odontogenic neoplasms having a wide variety of forms. Various forms of ameloblastomas have various treatment modalities ranging from a conservative approach to surgical resection with reconstruction. We report a case of asymptomatic unicystic ameloblastoma in a 24-year-old-female, who was treated by surgical enucleation.

Keywords : ameloblastoma, enucleation

Endoscopic transnasal extraction of tooth

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Introduction: Caldwell-Luc procedure is the most common approach performed by maxillofacial surgeons, for maxillary sinus surgery. This procedure involves raising of a mucoperiosteal flap and bone removal to create a window into the maxillary sinus. However in recent years transnasal endoscopic sinus surgery that spares the morbidities of traditional approaches is more commonly offered to the patients.

Material: A 25 year old male patient was referred to our clinic for removal of an ectopic third molar tooth in the right maxillary sinus. We performed endoscopic transnasal technique and in contrary to the Caldwell luc procedure there was no post-operative clinical oral antral communication.

Conclusion: Endoscopic transnasal removal of foreign bodies within the maxillary sinus is a safe and minimally invasive procedure compared to the classic Caldwell-Luc procedure.

Keywords : transnasal tooth extraction, endoscopy, ectopic molar

OSTEOCHEMONECROSIS OF THE MANDIBLE: A CASE REPORT

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Osteochemonecrosis of the jaw bone is a complication may be related to bisphosphonate, VEGF inhibitors and tyrosine kinase inhibitors therapy. Bisphosphonates commonly used for the treatment of the metabolic diseases like osteoporosis, Paget's disease, hypercalcemia of malignancy and multiple myeloma. Bisphosphonates impair bone turnover and can lead to bone necrosis. Osteochemonecrosis characterised by exposure of necrotic bone, infection, purulent discharge and pain. We present the case of a 77 years old female who had breast cancer and underwent chemotherapy 10 years ago. She was referred to our clinic with pain, suppuration and exposed bone in her jaw. She treated by oral clindamycin 2x2 for 2 months and operated after sequestration.

Keywords : osteochemonecrosis, bisphosphonates, chemotherapy, breast cancer

Lingual concavities in implant dentistry: A morphological study using cross-sectional analysis determined by CBCT

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Dental implants have recently become an ideal treatment modality for treating tooth loss. Adequate planning is necessary to avoid possible complications and save time and cost of treatment with significant reduction morbidity. However osseointegration of surgically placed dental implants is a predictable procedure, anatomic limitations and restorative demands require precision in planning and surgical positioning of implants. The aim of this retrospective study was to evaluate the prevalence and the degree of lingual concavity in the premolar and molar region using cross-sectional images from cone beam computed tomography (CBCT) scans of the mandibles.

A total of 88 subjects were included, consisting of 41 males and 47 females with a mean age of 51 years. The height of the bone to the deepest area of the submandibular fossa and the concavity depth of the submandibular fossa were evaluated. To measure the concavity depth, a tangent line was first derived to the lingual surface of the fossa and the deepest point was then selected by moving a perpendicular line across the tangent line. And the depth of the submandibular fossa were calculated

Gender did not affect the height of the bone to the deepest area of the submandibular fossa. The depth of the concavity of the submandibular was also statistically effected from the edentulism.

Mandibular posterior lingual concavity is a common clinical finding which must be avoided during implant placement. The knowledge of prevalence, position and extent of the lingual concavity is very important for safe implant placement in mandibular molar area.

Keywords : lingual concavities; cbct; implant dentistry

A Chronic Cutaneous Sinus Tract with Saliva Leakage; A Case Report

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Cutaneous draining sinus tracts of dental origin often are a diagnostic challenge. A delay in correctly diagnosing these types of lesions can result in ineffective and inappropriate treatment.

A healthy 44 years old male patient was referred to Abant İzzet Baysal University Faculty of Dentistry Department of Oral and Maxillofacial surgery for the evaluation of a dimple and extraoral sinus tract with saliva leakage on his right cheek. The patient reported that he had large caries on his right lower molar teeth. Once he had experienced an abscess originated from these teeth and swelling on his cheek. The teeth had been extracted and the cause of infection was removed but the cutaneous sinus tract left persistently. The patient was operated under local anesthesia. The fistula and the surrounding granulation tissues were entirely removed, and the sinus tract was eliminated properly. The operation site was closed with 3.0 silk suture and extraoral saliva leakage was avoided. The patient was followed up postoperatively and there was no complications during healing period.

Keywords : sinus tract, odontogenic infection, cutaneous sinus.

Central Odontogenic Fibroma of the Mandible : A Case Report

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Odontogenic fibroma (OF) is a relatively rare and benign odontogenic tumor. It is characterized by various amounts of odontogenic epithelium in a mature fibrous stroma. Two variants can be distinguished: an intraosseous or central OF (COF) and an extraosseous or peripheral. The intraosseous variant is an extremely rare tumor that presents clinical, radiographic, and histopathologic variable findings. This report presents a case of central odontogenic fibroma in the posterior mandible.

A 54-year-old man admitted to our clinic with painless swelling in the left mandibular premolar and molar region. His medical and surgical history was noncontributory. The stiff, elastic and white lesion was treated by enucleation and curettage. The histopathological examination led to the diagnosis of an odontogenic fibroma. No recurrence was seen during the one-year follow-up of the patient.

Radiographic images of COF occasionally mimic dentigerous cysts, but there are no particular radiographic features distinguishing COF. The diagnosis is usually based on histopathological findings.

Keywords : central odontogenic fibroma, mandible, odontogenic tumor

Dystrophic Epidermolysis Bullosa with Squamous Cell Carcinoma: A Case Report

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OBJECTIVE

Epidermolysis bullosa (EB) is a rare autosomal recessive genetic disorder characterized by fragility of the skin and mucous membranes in which vesiculobullous lesions and erosions occur due to minor traumas. The aim of this study is to present dystrophic epidermolysis bullosa case with squamous cell carcinoma on his right arm.

METHODS

A 25-year-old male patient was referred to Istanbul University, Faculty of Dentistry, Department of Oral and Maxillofacial Surgery with an extra-oral abscess around left mandibular canine. The patient was referred to our clinic by Istanbul University, Faculty of Medicine, Department of Dermatology where he was undergoing medical treatment since birth, at which time he had been diagnosed as having Dystrophic Type Epidermolysis Bullosa. After intra-oral examination and panoramic radiograph, teeth extractions were decided for treatment. Extractions were completed with minimum trauma, lowest pressure as possible and special surgery techniques. All roots with infection risks were extracted, caries were restored and oral hygiene was obtained.

RESULTS

The patient whose treatment were completed successfully has regular recall visits in every six months. The squamous cell carcinoma was detected on patient's right arm one year after at regular control visits. Although the patient refused the treatment, follow-up controls still continue.

CONCLUSIONS

Epidermolysis Bullosa is a chronic disorder that cannot be treated completely, which has high morbidity and mortality rates with extreme reduced quality of patients' life. Patients must be followed regularly for medical treatment and possible developing complications.

Keywords : epidermolysis bullosa, squamous cell carcinoma, dental management

Unilateral Bifid Mandibular Canal : A Case Report

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The bifid mandibular canal is a rare anatomical variation that can be of considerable interest to a dentist. This condition can lead to complications when performing mandibular anesthesia or during surgery of the lower third molar, orthognatic or reconstructive mandibular surgery, or placement of dental implants and prosthesis; bleeding and traumatic neuroma are possible complications. In the present case report, the radiographic and clinical findings of a patient who had a unilateral bifid mandibular canal was recorded. A 20- year- old healthy female was referred to our clinic because of pain at her lower right wisdom tooth region . İntra-oral examination revealed inflammation of the pericoronal mucosa. On the routinely performed panoramic radiograph, a bifid mandibular canal was detected and the patient was informed about this aberration. After removal of the mocoperiosteal flap to extract the wisdom tooth , the nerve which outgoing to vestibular mucosa was seen clinically.

Bifid mandibular canals are often unrecognized. The detection of these anatomical variations is important because of its clinical implications. Special attention has to be paid in surgical procedures involving the lower jaw.

Keywords : wisdom tooth, bifid mandibular canal

PERIPHERAL OSSIFYING FIBROMA: A CASE REPORT

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The peripheral ossifying fibroma is a reactive overgrowth of gingiva occurring commonly in the anterior maxilla of teenagers and young adults. It is originated from bone tissues, unlike cemento-ossifying fibroma that originates from dental tissues. We present a case of a 13 years old male who has a gingival overgrowth in his maxilla. The lesion had been excised surgically and showed a local recurrence after 1 year. The first histopathologic diagnosis of the lesion was peripheral cemento-ossifying fibroma and the diagnosis of the lesion after recurrence was peripheral ossifying fibroma.

Keywords : peripheral ossifying fibroma, cemento-ossifying fibroma, recurrence

GIANT SIALOLITHIASIS OF THE SUBMANDIBULAR GLAND: CASE REPORT

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Sialolithiasis is one of the most common diseases of salivary glands in middle-aged patients. Sialolithiasis accounts for 30% of salivary diseases and it most commonly involves the submandibular gland. A 30 years old male complains from pain was referred to Abant İzzet Baysal University, Faculty of Dentistry, Department of Oral and Maxillofacial Surgery with swelling in his right mandibular region and decrease in salivary flow. Elongated radiopaque structure superimposed on the right premolar area was detected in the panoramic radiograph. The surgical procedure was performed under lokal anesthesia. The sialolith was removed by excision. A catheter was placed for cannulation and protection of Wharton duct. The cannula was extracted on the 5th day after surgery. The normal salivary gland function with no complications was seen during postoperative follow-up.

Keywords : sialolithiasis, submandibular, salivary gland

Alveolar Ridge Augmentation with Combination of Autogenous Block Graft and Allograft by Using PRP

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OBJECTIVE

Dental rehabilitation of edentulous patients with oral implants has become common practice with enviable long-term results. On the other hand, problems about local conditions of the alveolar ridge like atrophies of the jaws, periodontal diseases or trauma defects may cause insufficient bone volume, which may interfere with implant placement. Although numerous additional surgical reconstructive procedures as autogenous, allogeneous, xenogeneous, alloplastic grafts or their combinations can be used to provide sufficient ridge volume; the use of autogenous bone grafts are accepted as the gold standard. Additionally, platelet-rich plasma (PRP) has positive effects for bone grafts with its osteoinductive potential.

METHODS

A 39-year-old female patient was referred to Istanbul University, Faculty of Dentistry, Department of Oral and Maxillofacial Surgery for dental implant surgery in the left posterior mandibular region. The patient was diagnosed with the loss of left mandibular first molar tooth and insufficient alveolar ridge volume after intra-oral examination, panoramic x-ray and CT scan results. Autogenous block graft together with allograft, PRP and resorbable membran were decided to apply for the surgery. Left mandibular ramus was chosen as donor site for autogenous block type graft because of little volume loss and good incorporation. Both the donor and recipient surgical sites were anesthetized by using an appropriate technique. Recipient site's preparation involves attached tissue incisions with full thickness broad base flap to allow maintenance of blood supply and releasing procedures to facilitate tension-free closure. Multiple perforations were made on the cortical bone by a small round bur in order to facilitate the revascularization, influx of growth factors and platelets. Block bone graft was obtained by using the standard method from the donor site. The autogenous block graft were measured and adapted according to the recipient area, then delivered and stabilized in this area with mini-screws. Allograft was used as a filler for the peripheral surfaces. Finally, PRP and resorbable membranes applied before the flap closure.

RESULTS

Surgical procedures were completed successfully without any complications. Soft tissue healing and sufficient alveolar ridge volume were diagnosed at postoperative controls.

CONCLUSIONS

Reconstruction by using autogenous block grafts from ramus and allografts together with PRP and resorbable membranes can provide sufficient bone volume to restore alveolar defects with high success rates.

Keywords : prp, block graft, autogenous augmentation

RECURRENCE OF ODONTOGENIC MYXOMA localized AT CORONOID PROCESS -A CASE REPORT

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Odontogenic myxomas are benign but locally aggressive neoplasms found almost exclusively in the jaws and arise only occasionally in other bones. It is mostly seen in maxilla. Lesions are mostly seen at posterior mandible. OM is classified as a benign tumor of ectomesenchymal origin with or without odontogenic epithelium. It appears to originate from the dental papilla, follicle or periodontal ligament. Although the odontogenic myxomas are seen in each sex and wide age range, most frequently occurs in the second or third decade of life. The lesion often grows without symptoms and presents as a painless swelling. The radiographic features are variable, appearance may vary from a unilocular cystic radiolucency to a large multicystic, expansive lesion with either well-defined, even sclerotic, or diffuse margins, and the diagnosis is therefore not easy. The differential diagnosis must be made with fibrous dysplasia, central giant cell granuloma, dentigerous cysts, central hemangioma, ameloblastoma and aneurismal bone cyst. Odontogenic myxoma has a high rate of recurrence. The treatment of choice for OM is surgical excision by enucleation, curettage, or block resection. OM carries a high recurrence rate. Due to poor follow-up and lack of reports, a precise and accurate recurrence rate is still missing.

In this poster presentation, a recurrent mandibular myxoma diagnosed 2 years after the initial lesion treatment presented and conservative treatment strategies are discussed.

Keywords : myxoma, oral odontogenic tumors, odontogenic myxoma

MANAGEMENT OF GERIATRIC PATIENT WITH EPULIS FISSURATUM USING DIODE LASER: A CASE REPORT

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OBJECTIVE:

To evaluate the safety and efficacy of an 800 nm diode laser for treatment of benign oral soft tissue in a hypertensive patient.

MATERIAL and METHOD:

Treatment with the 800 nm diode laser was applied to an eighty year-old female patient with epulis fissuratum.. The excision of fibrous tissue was performed with diode laser, and the wounds formed by laser were left open to secondary epithelization.

RESULTS:

The advantages of using a diode laser has been clinically demonstrated in the present study, presenting minimal bleeding during the surgery with no need of sutures while also presenting a good healing response, with minimal wound contraction, less inflammatory reaction, and good re-epithelialization with no scar formation.

CONCLUSIONS:

Patient acceptance and satisfaction, without compromising health and function, have been found to be a high degree in this present study. Thus, we can say that diode laser may be a useful instrument in the treatment of soft tissue pathologies especially in hypertensive patients.

Keywords : geriatric patients, epulis fissuratum, Maxillofacial surgery

Use of Distraction Osteogenesis in Cleft Palate and Trauma Patients

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OBJECTIVE: Distraction osteogenesis can be used to aid in alveolar augmentation. If an osteotomized bone can be transported to a new position without complications, it would reduce or eliminate the need for a secondary bone graft to the defect alveolus in cleft patients and trauma patients.

METHODS: 16, 19, 21 and 23 year-old male and female patients was consulted to Süleyman Demirel University Faculty of Dentistry Department of Oral and Maxillofacial Surgery for their alveolar cleft or mandibular bone defects resulting from trauma and have remained challenging to surgically reconstruction. The surgical plan consisted of reconstructing the cleft or bone defect with distaction osteogenesis procedure. The patients were operated on under general anaesthesia with regional nerve blocks for the osteotomy of bone segments. Minimal incision and dissection were performed so that there was no loss of blood circulation. After osteotomy, fixation points were established for each bone segment and a device was used to distract each segment separately. The flaps were closed and the patients were recalled after latency period. The patients were instructed to open the screw twice a day, each activation equalling 0.30 mm The distraction was continued until the alveolar clefts were narrowed or alveolar segments as the same height as the next alveolar bone. The mean consolidation period was 3 months. All patients had distraction osteogenesis of the mandibular or maxillar bone to reconstruct the alveolus.

RESULTS: Segments were advanced for 8-10 mm.

CONCLUSIONS: The advantages of distraction osteogenesis are augmentation of alveolar bone height with new bone formation and simultaneous expansion of the soft tissues and no bone graft is necessary in cleft palate and trauma patients

Keywords : distraction osteogenesis, cleft patient, trauma patient

Use of Custom Made Mandibular Midline Distractor for Width Discrepancies of The Mandible

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OBJECTIVE: Distraction Osteogenesis has been used to successfully treat length and width discrepancies of the mandible with intraorally placed bone distraction appliance. Using distraction osteogenesis of the mandibular midline, there is an alternative to tooth extraction, stripping of teeth, or orthodontic dental compensation. Also distractor can be used for patients with periodontal problems.

METHODS: Two patients underwent mandibular midline distraction osteogenesis for the treatment of mandibular transverse discrepancies. The patients were operated on under general anaesthesia for the osteotomy of labial corticotomy near the root apices of the incisors that was connected with a complete osteotomy extending to the inferior border of the mandible. The osteotomy was completed by manipulating a chisel in the osteotomy site at the inferior border of the mandible. After osteotomy, fixation points were established for each alveolar segment and a device was used to distract each segment separately. The flaps were closed and the patients were recalled after 5 day latency period. Distraction was performed at a rate of 0.50 mm divided into 2 periods of expansion per day. After an distraction period of 10 days, the distractor was left in place for retantion. The retaining distraction was removed after consolidation period.

RESULTS: The patients' mandibular symphysis gap width has increased. At the end of treatment, the mandibular transverse discrepancies had been successfully corrected. None of the patients have suffered from periodontal problems.

CONCLUSIONS: We conclude that mandibular midline distraction is an effective method of correcting orthodontic anomalies.

Keywords : distraction osteogenesis, midline distractor, mandibular transverse discrepancies, periodontal problem

Anesthetic Approach to Patient With Down Syndrome and Hallervorden-Spatz Disease Who Underwent Tooth Extraction

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BACKGROUND

Hallervorden-Spatz disease is a rare neurological condition, caused by iron accumulation, characterized by progressive degeneration of the central nervous system, basal ganglia, globus pallidus and reticular part of the substantia nigra, however blood and cerebrospinal fluid levels of this metal are normal. It is usually autosomal recessive but sporadic in 15% of cases, starts in late childhood and early adulthood, progresses in 2-10 years. We present our anesthetic approach in tooth extraction of a mentally retarded, Down syndrome patient who has been diagnosed with Hallervorden-Spatz disease.

CASE

16 year-old, Down syndrome male patient with dystonia, dysarthria, gait disturbance, sudden onset of psychotic symptoms was diagnosed with Hallervorden-Spatz syndrome. He admitted to our clinic for multiple tooth extractions and was consulted for general anesthesia because of cooperation difficulty, agitation and motion disorders. At preoperative examination thyromental distance was 5cms, sternomental distance was 10cms, mandibulohyoid distance was 3cms, Mallampati Class was IV, atlanto-occipital joint extension was limited and he had macroglossia. Patient was considered difficult intubation and extractions were planned under sedoanalgesia with monitored anesthesia care (MAC). After 4 hours fasting patient was taken to the operating room without premedication, patient with UMSS level 1 (University of Michigan Sedation Scale), was administered 2mgs of intravenous midazolam, was oxygenized 4lts/min by nasal oxygen cannula, was administered intravenous metoclopramide and ranitidine to increase lower esophagus sphincter pressure and neutralize stomach acid. 1mg/kg intravenous ketamine was administered for anesthesia maintenance. Convenient mouth opening was achieved when patient reached UMSS level 3. Extractions were carried out in 20 minutes under ketamine infusion titrated to obtain UMSS level 3. After the surgical procedure was finished infusion was terminated, UMSS level 1 was achieved in 4 minutes, respiration became regular and sufficient, general condition was good and patient was sent to service.

CONCLUSION

Treatment plans for patients with Hallervorden-Spatz disease may require general anesthesia because of cooperation difficulty and pyramidal-extrapyramidal symptoms. When difficult intubation criteria and cooperation difficulty are present for mentally retarded patients, attaining sedoanalgesia under MAC, with titration of short-term anesthetic agents and achieving UMSS level 3 provides sufficient mouth opening for minor dental surgery procedures. Probable complications are prevented; mortality is decreased, fast recovery and early discharge is provided, patient, surgeon contentment is increased.

Keywords : Hallervorden-Spatz Disease, Anesthetic Approach, Tooth Extraction

Rare Complication of Tooth Extraction: Traumatic Myositis Ossificans

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Myositis ossificans (MO) is a disease involving heterotopic ossification in the muscle or soft tissue. MO is divided into progressive and traumatic types. It rarely occurs in the masticatory muscles and mostly involves the lateral pterygoid and medial pterygoid muscle. It generally generated as a calcification of an intramuscular haematoma following trauma.

Two traumatic myositis ossificans cases were presented in this report. First one occurred following upper erupted tooth removal and second one occurred following surgical removal of impacted third molar. Severe and prolonged trismus was apparent in both patients following their surgical treatment. Even combined myorelaxant and antiinflammatory agents were prescribed to the patients for two weeks, their maximal incisal opening was 9 and 5 mm at postoperative first month. Aggressive, manual, and compelling manipulation of mandible was performed under sedation. 36 and 43 mm maximal inter incisal openings and improvement of laterotrusive movements were achieved in patients. Aggressive physical therapy was applied for three months in both patients. Following manual manipulation under sedation and physical therapy, mouth opening of the patients was protected.

Clinicians should be aware of myositis ossificans, especially in case of prolonged trismus following dento-alveolar surgical procedures. Myositis ossificans may occur as a rare complication after minimal trauma on masticatory muscles during tooth removal procedures. Early diagnose of myositis ossificans and manual manipulation of mandible under sedation prevents further more invasive procedures on masticatory muscles.

Keywords : myositis ossificans, traumatic myositis ossificans, trismus

Multiple Odonthogenic Keratocysts occurred dependent to Gorlin-Goltz Syndrome; treatment and 8 years follow up

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Nevoid Basal Cell Carcinoma Syndrome(NBCCS) is a hereditary disorder, inherited as autosomal dominant trait with concomitant cutaneous, skeletal, ophtalmic, neurologic and sexual abnormalities.It was first described by Gorlin and Goltz in 1960.

It is characterised by multiple Basal Cell Carcinomas(BCC) , palmar plantar dyskeratosis and pitting, multiple odontogenic keratocysts (OKC) and dilaceration of the roots of the teeth adjacent to the cyst , pagetoid appearance due to the frontal and temporo-parietal bossing, costa abnormalities, hypertelorism, congenital blindness, internal strabismus, glaucoma, mental retardation, calcification of falx cerebri, hypogonadism in males and ovarain tumours in females.

In the presented case; a 47 year-old male patient referred to the plastic surgery clinic complaining with the cutaneous lesions on his brow, eyelids and hairy skin.After the biopsies were performed, "Basal Cell Carcinoma" was defined .His other obvious symptoms consequent to Nevoid Basal Cell Carcinoma Syndrome were evaluated and he was sent to our clinic for the treatment of radiologically defined cysts in his jaws.As a result of consultation with Hacettepe University Medical Faculty Department of Genetics it was diagnosed that he has nearly all of the symptoms of Gorlin-Goltz Syndrome. Cyst surgeries and 8 years follow up will be presented at this presentation.

Keywords : gorlin goltz syndrome, nevoid basal cell carcinoma syndrome, ceratocystic odontojenik tumor

Rehabilitation Of Partial Maxillectomy Defect With Implant-Supported Hollow Bulb Obturator Prosthesis: A Case Report

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Basal cell carcinoma is done extensive resection in the treatment of tumors because of high recurrence. Therefore, patients who have lost muscle coordination, speech, correction of the poor swallow and aesthetic is needed more stabilization.

To this end, hollow bulb obturator supported by osseointegrated dental implants and tooth, increase retention and stability of obturator. The treatment of maxillofacial tumor patients underwent maxillectomy, suffer chewing, swallowing, speech and aesthetic emerges as serious problems.

Rehabilitation with implant-supported hollow bulb obturator prosthesis was explained for a 64-year-old male patient subjected to posterior maxillary right resection because of basal cell tumor mass.

At the end of the 6-month period of use of the controls evaluate chewing, swallowing, speech as a result it was observed that aesthetically encountered any problems and ensure patient satisfaction.

Keywords : basal cell carcinoma, maxillectomy, implant-supported hollow bulb obturator

Acute leukemia mimicking gingival hyperplasia: Report of two cases

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Background: Leukemia is a hematological disorder arises from hematopoietic stem cells characterized by a disorder in differentiation and proliferation of neoplastic cells. Rapidly forming generalized gingival hyperplasia is usually the first sign of this disease (especially in acute forms).

Patients and methods: This report describes two patients who presented with gingival hyperplasia as an early sign of acute leukemia. For both patients the diagnose wasn't determined at the first attended institution thus the treatment couldn't be performed at the early stage of the disease.

Conclusion: Acute leukemias are highly malignant neoplasms and are responsible for a large number of haematopoietic cancer-related deaths . Although the survival rates have improved remarkably in the younger age group, the prognosis in older patients is still poor which makes the early diagnosis crucial. Oral health care professionals should always be on guard to observe any oral manifestations inorder not to miss out underlying systemic disease.

Keywords : gingival hyperplasia, acute leukemia, signs and symptoms

A Case Report: Closure Of 1,5 Year Oroantral Fistula With Chin Graft And Implant Placement Same Region

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Oroantral fistula (OAF) is an abnormal connection between the maxillary sinus and the oral cavity, and it is mostly formed after the extraction of the first and second upper molar. The incidence of the formation of OAF is one in 180 extractions of the upper first molar and 1 OAF in 280 extractions of the upper second molar. The choice of the appropriate therapy must take into consideration the width, epithelialization and presence or absence of infections. Defects less than 3mm in width and without epithelialization might heal spontaneously in the absence of infections. In the latter case, infection must be cured before surgery to avoid impaired drainage. For many decades, the "gold standard" for the surgical repair of OAFs of a diameter greater than 4 mm and alveolar depth less than 5 mm has been though the use of a buccal mucoperiosteal advancement flap, according to Rehrmann, with 93% success. An OAF with the diameter of 3 to 4 mm and the alveolar depth greater than 5 mm, without permanent sinus pathology or foreign bodies, could be closed with otogenic grafts, alloplastic or biological materials, ensuring stable blood and thus closing the OAF.

At this case the patient who was 39 years old male was extracted his right first molar tooth 1,5 year ago. After extraction at first month the patient realised the oro-antral opening and got 2 operations simultaneously at same region in 1,5 year. When patient came our clinic he had an OAF which was 11 mm width. We planned to close it with chin graft and on it buccal fat flap lastly buccal mucoperiosteal flap. After closure We plan sinus elevation and implant placement for same region.

Keywords : oroantral fistula, oroantral opening, closure oroantral fistula, oroantral fistula implant, oroantral fistula grafting and implant

Proinflammatory Cytokines Correlated with Clinical Outcome of TMJ Irrigation in Patients with Anterior Disc Displacement

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Objective: This study investigated the correlation of clinical outcomes of temporomandibular joint (TMJ) irrigation with the occurrence and concentrations of interleukin (IL)- 1 β , IL-6 and tumor necrosis factor (TNF)- α in the washed-out synovial fluid in patients with anterior disc displacement without reduction of the TMJ.

Methods: The study group comprised 44 patients (38 females, 6 males; between the age of 15 and 42 years) diagnosed to have disc displacement without reduction both clinically and radiographically. The patients were treated randomly either with arthrocentesis (Group I), arthrocentesis+sodium hyaluronate (Group II), arthrocentesis+methylprednisolone acetate (Group III), or arthrocentesis+tenoxicam (Group IV) injection. Synovial fluid samples were obtained before arthrocentesis. IL-1 β , IL-6 ve TNF- α concentrations were measured. For each treatment group, the patients were divided into either successful or unsuccessful groups.

Results: The cytokines were detectable at various concentrations in all patients. However, concentrations of the cytokines were not different among the patient group and the outcome.

Conclusion: The proinflammatory cytokines play an important role in the pathogenesis of TMJ internal derangement. However, they are not good marker for evaluation of the treatment success.

Keywords : arthrocentesis, synovial fluid, temporomandibular joint.

Mild Dysplasia of Oral Epithelium in a Patient with Cigarette Smoking Addiction: A Case Report

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Mild Dysplasia of Oral Epithelium in a Patient with Cigarette Smoking Addiction: A Case Report

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Objective

Dysplastic areas in the epithelium of the oral mucosa is always associated with a progression to cancer. In addition, non-dysplastic lesions may also transform due to the local or systemic factors and may cause dysplastic features. The best known factor is the cigarette smoking for progression of cancer with the exception of genetic factors.

Methods

...-year-old male patient referred to our clinic with a complain of white lesion on his left buccal area. He came with a diagnosis of non-specific infection according to previous biopsy report. Severe smoking addiction was learned while taking medical history with no other systemic conditions. White leukoplakia-like lesion starting from left commissural region to posterior areas was obtained in intra-oral examination. Incisional biopsy performed under local anesthesia. After one week, patient came with a biopsy report that showed mild dysplasia. Total excision of the lesion was decided and performed. The patient was strongly advised about his cigarette addiction and he still comes his recall visits regularly.

Results

After one week from the surgery the soft tissue healing was succesfull with any signs of infection. The lesion was not observed at 1., 2. and 3. follow-up controls.

Conclusion

The ability to control oral cancers is due to the early diagnosis and regular controls. It is important to perform biopsies for suspected lesions and inhibit local factors that related to progression of oral cancers.

Keywords : dysplasia, smoking, oral epithelium

TREATMENT OF EOSINOPHILIC GRANULOMA WITH INTRALESIONAL CORTICOSTEROID INJECTION

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Eosinophilic granuloma of bone is a disease with an incidence of one new case per 350,000 to 2 million per year, which is an uncommon disease of maxillofacial region, and presents in more than 90% in children under the age of ten with predominance for males. Eosinophilic granuloma of the jaws is a rather benign and localized form of Langerhans' cell histiocytosis. Treatment is usually required in larger lesions that cause local pain and swelling and pose the risk of spontaneous fractures. There are several accepted forms of treatment, which include surgery, radiation therapy, systemic and local therapy with corticoids, and systemic chemotherapy. No studies exist that compare the effectiveness of these treatment modalities. In this case report treatment of eosinophilic granuloma which extends left incisors to ramus mandible with intralesional corticosteroid injection supported by systemic corticosteroids.

Keywords : eosinophilic granuloma , intralesional, corticosteroid, mandible

Multiple Supernumerary Teeth in a Non-Syndromic Patient: A Case Report

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Multiple Supernumerary Teeth in a Non-Syndromic Patient: A Case Report

Arda Öztan, Ayşem Yurtseven, Gülsüm Ak

Objective

Supernumerary teeth are rare developmental alterations that may appear in the dental arches or other areas. They are generally associated with syndromes but can be observed in patients with any systemic conditions infrequently. Radiographic imaging techniques are very important for correct diagnosis, treatment plan and surgery.

Methods

A ...-year-old male patient was referred to our clinic at Istanbul University, Faculty of Dentistry, Department of Oral and Maxillofacial Surgery by Istanbul University, Faculty of Dentistry, Department of Pedodontics with a diagnosis of supernumerary teeth in both maxillar and mandibular premolar regions observed in panoramic radiographic image. Panoramic radiographic examination revealed the presence of 8 supernumerary teeth associated with the premolars for 2 each in every 4 areas. Computed tomography scan was performed for a better localization of the teeth. One of the supernumerary teeth, in the left mandibular region, was diagnosed with inverse position according to CT scan results. After exact localizations were decided, treatment plan was determined as 4 operations with single area performing in a week under local or regional anesthetics. First surgical operation was performed for right mandibular region, second for left mandibular region, third for right maxillar region and fourth for left maxillar region.

Results

The patient did not complain of pain and he did not presented any signs or symptoms of infection during the postoperative period. Retentions and delayed eruptions treated successfully by extractions. Patient is still being followed for dislocations if any orthodontic treatment will be necessary or not.

Conclusion

In some cases supernumerary theeth may cause complications, including retention or delayed eruption of some permanent teeth, dislocation, rotation, diastema, root resorption, periodontal lesions, pulp necrosis of adjacent teeth or formation of a

dentigerous cysts. Early diagnosis and treatment are fundamental in such cases for successful results.

Keywords : supernumerary teeth, oral surgery,

Comparison of Methylprednisolone Acetate, Sodium Hyaluronate and Tenoxicam in the Treatment of Disc Displacement of TMJ

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Objective: To compare the effects of methylprednisolone acetate, sodium hyaluronate and tenoxicam implemented after arthrocentesis on the patients disc displacement with nonreduction clinically and radiologically.

Methods: The study group comprised 44 patients (38 females, 6 males; between the age of 15 and 42 years) diagnosed to have disc displacement nonreduction both clinically and radiographically. The patients are treated randomly either with arthrocentesis (Group I), arthrocentesis+sodium hyaluronate (Group II), arthrocentesis+methylprednisolone acetate (Group III), or arthrocentesis+tenoxicam (Group IV) administration.

Routine checkups were made first week, first month, third month, and sixth month. Maximum mouth opening (MMO), contralateral movements, Visual analog scale (VAS) pain scores, temporomandibular joint (TMJ)) and masticatory muscles palpation results were recorded at each control. Magnetic resonance imaging (MRI) were obtained pre-treatment and post-treatment sixth month. Disc form, disc position, reduction during motion, range of motion, joint space, effusion, condylar degenerations were examined in MRI.

Results: No statistical difference was detected between the success rates of the four groups according to the criteria of the American Association of Oral and Maxillofacial Surgery. By treatments, MMO and contralateral movements increased and VAS pain scores decreased.

Conclusion: Arthrocentesis or injection medicament with arthrocentesis in the treatment of disc displacement nonreducing reduced the pain and increased MMO.

Keywords : arthrocentesis, nonreduction disc displacement, mri, temporomandibular joint

Conservative Treatment of Bilateral Mandibular Condyle Fracture In a Pediatric Patient: A Case Report

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The pediatric mandible fracture is a rare occurrence when compared with the number of mandible fractures that occur within the adult population. It is a unique injury that warrants a comprehensive discussion. Because of the unique anatomy, dentition, and growth of the pediatric patient, the management of a pediatric mandible fracture requires true diligence with a variance in treatment ranging from soft diet to open reduction and internal fixation.

Condylar fractures appear to be common, affecting about 46% of patients either alone or in combination with other fractures. Mandibular fractures in children can often be successfully managed by acrylic splint therapy of the mandible only or with eyelet wires and IMF. A shortened period of IMF, 2 to 3 weeks, is all that is required. When an open reduction is required, it has been successfully accomplished by the extraoral route using inferior border wiring in order to avoid the tooth buds.

In this case, we present 9 year old female patient with bilateral condyle and right parasymphysis fracture with anterior open-bite. Fractures had been discovered during panoramic and antero-posterior radiologic examination. Additionally, the patient had temporomandibular joint disfunction, laceration in the pogonion region and teeth loss caused by an accident. Treatment has been managed by using occlusal acrylic splint fixed with circummandibular wiring because of the risk of long-term sequelae involving skeletal growth, which may affect facial symmetry and occlusion.

Keywords : trauma, pediatric condyle fracture, close reduction, circummandibular wiring

FLORID CEMENTO-OSSEOUS DYSPLASIA

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Florid cemento-osseous dysplasia (FCOD) is a rare, benign and multifocal dysplastic condition of jaw bones. The condition is usually asymptomatic. It is most commonly seen in middle-aged black women however, it may also be seen in Caucasians and Asians.

Radiographically, this lesion is identified by multiple masses of mixed radiopaque aspect. These masses, initially surround the root apices of vital teeth mostly with a circumferential radiolucency, and the lesion may become progressively radiopaque over time.

The lesion is most common in the mandibular molar/premolar area. Thus, diagnosis mostly could be done after a radiographic examination, incidentally.

In this case report a 60 year-old Caucasian female FCOD patient assigned to OMFS clinic with severe pain of left mandible and right maxilla was presented.

Keywords : florid cemento-osseous dysplasia

Conservative Management of a Dentigerous Cyst Around Impacted Third Molar with Combined Orthodontic and Surgical Therapy

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OBJECTIVE: Dentigerous cyst is a common pathologic entity associated with an impacted tooth. The standard treatment for this lesion is enucleation and extraction of the involved tooth. Marsupialization therapy is suggested to prevent the complications associated with a large odontogenic cyst, and to promote the spontaneous eruption of the involved tooth within the cyst. However, tooth eruption does not always occur spontaneously after marsupialization. This report describes conservative treatment of a large dentigerous cyst associated with deeply impacted mandibular third molar.

METHODS: A 50-year-old male patient presented to our clinic with the chief complaint of pain in mandibular third molar area. Panoramic radiograph showed a large radiolucent lesion associated with a deeply impacted mandibular third molar. A close proximity between mandibular third molar and mandibular canal, and also a large cyst detected by CBCT images. Considering the high risk of mandibular nerve damage and mandibular fracture, a combined surgical-orthodontic treatment including both marsupialization of the cyst with orthodontic chain and button and the extrusion of the tooth were planned instead of the enucleation of cyst with the extraction of tooth.

RESULTS: After marsupialization for 12 months, the impacted tooth could be elevated slightly and cyst diameter was reduced, and finally impacted third molar was extracted and cyst was enucleated uneventfully. This two-step orthodontic-surgical procedure reduced the risk of nerve damage and the risk of pathological fracture in the mandible.

CONCLUSIONS: This technique may be a safe and feasible alternative in management of severely impacted mandibular molars associated with large dentigerous cyst, which achieves both marsupialization and successful separation of mandibular third molar from the inferior alveolar nerve.

Keywords : dentigerous cyst, marsupialization, impacted tooth, orthodontic eruption

TREATMENT OF ANTERIOR OPEN BITE WITH ANTERIOR SEGMENTAL OSTEOTOMY AND DISTRACTION OSTEOGENESIS

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Anterior maxillary osteotomies are generally used to treat horizontal maxillary excess when posterior occlusion is correct or correctable by mandibular surgery but sometimes used for correction of premaxilla in vertical plane as required anterior deep bite or open bite. Currently, mainly three variations of anterior segmental osteotomies are used; the Wassmund, Wunderer, and down fracture methods . In this case report we aim to present treatment of 21 yaers old female patient with *congenital* absence of *tooth* and anterior open bite by anterior segmental osteotomy and distraction osteogenesis. Treatment plan was made with orthodontics. following initial orthodontic treatment then anterior segmental osteotomy without palatal flap or incision was done. After down fracture of maxilla 2 anchorage screws placed premaxilla and 2 anchorage screws placed posterior part of the palate. Special prepared bidirectional distractor fixed to the screws.

Keywords : Anterior Segmental Osteotomy , Open Bite, Distraction Osteogenesis

Large Odontogenic Cyst at the Anterior Mandibular Region: 7 Years Follow Up

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Radicular cysts (also known as periapical cysts) are the most frequent cystic lesion related to teeth. Radicular cysts result from infection of the tooth, which spreads to the apex and into the adjacent bone. This leads to apical periodontitis, granuloma formation and eventual cyst formation. These cysts are therefore centered on the apex of the tooth, and tend to be small, most less than 1 cm. These are typically seen in 3rd to 6th decades. Radiographically most radicular cysts appear as round or pear-shaped, unilocular, lucent lesions in the periapical region. The aim of this study is to represent 7 year old follow up of a radicular cyst in 45 year old male patient.

Case: A 45 year old male patient referred to our clinic with a pain and a small swelling on his anterior region of mandible. As a result of dental examination necrosis of mandibular incisors and canines, root canal treatment of left mandibular canine and large filling of left mandibular lateral incisor is diagnosed. Radiographic examination revealed well defined, single, 5 cm unilocular radiolucency. Enucleation of the cystic lesion was performed after the root canal treatment of necrotic incisors and canine. Histologic examination revealed the diagnosis of radicular cyst.

Discussion: Radicular cysts are the most common developmental cysts associated with tooth. In this case 7 year old follow up of a large radicular cyst which is located on the anterior region of mandible is represented.

Conclusion: 7 year old follow up of a radicular cyst showed formation of a new bone on the anterior region of mandible.

Keywords : radicular cyst, pathology, follow up

Conservative Approach for Huge Residual Cyst in a Geriatric Patient

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Residual cyst, as the name implies, is an inflammatory odontogenic cyst that remains after removal of the related tooth and constitute of approximately 10 % of all odontogenic cysts. Residual cyst show more predilection in males and they commonly affect the maxilla. The cyst usually encountered in older individuals with an average age of 50 years. Majority of the residual cysts are asymptomatic. They are often discovered as incidental findings on routine radiographs. However, because of the expansile nature, they can cause expansion of cortical plates of the jaws or can displace the related anatomical structures. The radiographic feature of the residual cyst is a well-defined unilocular radiolucency of varying size at the edentulous area of a previously extracted tooth. Residual cysts can be treated by complete surgical enucleation or by marsupialization or/and decompression which describes a gradual diminishing process after relief of the internal hydrostatic pressure caused by the cystic content.

Even if the treatment of these benign lesions seems to be simple; systemic diseases, patient's mental status, severe aging and tissue loss caused by large lesions prevents to perform invasive surgical approaches. Thus, conservative treatment options may be required. This poster presents the conservative treatment of a residual cyst that has reached a large size in a 93-year-old female patient.

Keywords : residual cyst, huge, geriatric patient, decompression

Acquired Double Lip

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Double lip, also referred to as “macrocheilia” is a rare anomaly which consists of redundant hypertrophic tissue on the mucosal side of the lip and is originating from excessive areolar tissue and non-inflammatory labial mucous gland hyperplasia. The occurrence of double lip may either be congenital or acquired and it becomes more prominent with tension caused by smiling. The acquired double lip appears secondary to trauma which caused by oral habits or ill-fitting dentures. Epulis fissuratum also called denture induced hyperplasia is the most frequent pathology among inflammatory/reactive lesions of the oral mucosa and similar as the acquired double lip, it can occur associated with ill-fitting dentures. This deformity affects speech and mastication and also interferes with esthetics. The treatment of these cases is surgical and is usually indicated for functional reasons or for cosmetic reasons when double lip leads to facial disfigurement.

In this paper we present the surgical treatment of an excessive epulis fissuratum that resembles an acquired double lip in an elderly woman and the healing process of the lesion before the subsequent prosthetic restoration.

Keywords : acquired, double lip, ill-fitting denture

Treatment Options for Peripheral Giant Cell Granuloma Associated with Dental Implant:Literature Review and a Case Report

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As a respond to local irritation or constant trauma several reactive lesions may develop in the oral cavity. Peripheral giant cell granuloma is a relatively common benign reactive lesion of oral cavity, originating from the periosteum or periodontal membrane. It manifests, clinically, as a small, well-demarcated, red-purple nodule with a sessile or pedunculated base. Mandible is commonly involved by the lesion than maxilla. The lesion shows a slight female predilection and frequently encountered between the fifth and sixth decades of life. Peripheral giant cell granuloma may appear in the interdental papilla, edentulous alveolar margin and rarely around the peri-implant mucosa. Because of the small number of published cases, it is difficult to speculate about the pathogenesis and management of these lesions around dental implants.

This report reviews the published treatment options for peripheral giant cell granuloma developing in association with dental implant and presents a case in which a peripheral giant cell granuloma was found in close proximity to a dental implant in a 59 year-old female

Keywords : peripheral giant cell granuloma, dental implant, surgical treatment

Non-syndromic Multiple Impacted Permanent Molars

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Objective: The aim of this study was to review the published papers about non-syndromic multiple permanent molar teeth/ their management and also discuss the etiology/treatment planning of a rare case of a non- syndromic, multiple impacted permanent molar teeth detected simultaneously in all quadrants of the jaws.

Methods: A search was performed on the PubMed electronic database, using the following keywords: 'non-syndromic impacted molar teeth', 'multiple impacted molar teeth' and 'impacted permanent molars'. Papers published to date in English and which were mentioned at least two permanent molars except the third molars were selected and included in the review.

Results: The papers which met the inclusion criteria were included in the study among the 384 papers.

Conclusions: Simultaneous impactions of non-syndromic multiple permanent molars are a very rare clinical situation with diverse therapeutic approaches and difficult challenge for dentists. Early diagnosis and treatment of eruption disturbances contributes to optimal outcomes.

Keywords : multiple impacted, permanent molars, non-syndromic

Publication Number : PP - 234

Abstract Referance : 380

CEMENTO-OSSIFYING FIBROMA

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The cemento-ossifying fibroma is a benign fibroosseous lesion that most commonly affects mandible. Cemento-ossifying fibroma derived from periodontal cells which can form fibrous tissue, cementum and bone. We present a case of a 30 years old female who has diagnosed cemento-ossifying fibroma after clinical, radiographic and histopathological evaluation. She has operated three times because of recurrence of the lesion.

Keywords : cemento-ossifying fibroma, fibroosseous, mandible

The use of buccal fat pad flap for closure of oroantral communication after sequesterectomy in MRONJ of the maxilla

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Introduction

Medication related osteonecrosis of the jaws (MRONJ) could occur spontaneously, or after a surgical procedure that exposes the jawbone in a susceptible patient. Oroantral communication may be a common complication after sequestrectomy and bone debridement in maxillary MRONJ. The use of pedicled buccal fat pad flap (BFP) has proved of value for the closure of oroantral communications and is a well-established method in oral and maxillofacial surgery.

Case Report

A 50-year-old female was admitted with a complaint of pain and swelling in the right upper molar region. The patient reported extraction of the right first molar tooth almost one year ago. She has been received 4mg zoledronate (Zometa®) intravenously every 3 weeks for five years for breast cancer therapy. Intraoral examination revealed exposed bone and infection in the related region. Orthopantomography and cone beam computerized tomography showed right maxillary bone sequestrum in the posterior region and inflammation in the right maxillary sinus with an obstructed ostium. The patient was diagnosed with MRONJ Stage III. Medical therapy with amoxicillin and clavulanate (1000 mg) and chlorhexidine mouthwash was started. The patient underwent sequesterectomy and bone debridement under general anaesthesia. The closure of the oroantral communication was performed by using buccal fat pad flap in the same session. In addition, the obstructed maxillary sinus ostium was treated by functional endoscopic sinus surgery. Postoperative healing was uneventful. Any dehiscence, infection, necrosis and oroantral communication was not observed at 6 months follow-up.

Discussion

The buccal fat pad flap is a simple procedure and provides a convenient and reliable method for treating small to medium sized defects. This technique widely applicable with low incidence of failure and minimal donor site morbidity. BFP may be suggested when

surgery in posterior maxilla in MRONJ patients is planned. It could reduce or avoid postsurgical OAC and promote bone healing in the affected area.

Keywords : medication related osteonecrosis of the jaws (mronj), pedicled buccal fat pad flap, oroantral communication

Nonsurgical Endodontic Treatment of Mandibular Molar With a Large Periapical and Furcal Lesion: A Case Report

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OBJECTIVES

The purpose of this case is to present the healing of a large periapical lesion with an adequate endodontic treatment without the need of any surgery.

METHODS

A 45-year-old woman was referred to the Department of Endodontics for a firm swelling at right buccal mandibular gingiva. Clinical examination revealed the presence of deep amalgam restoration on right mandibular first molar. The tooth showed normal physiologic mobility, no periodontal pockets on probing and response to vitality test was negative. In radyografic examination; wide periapical lesion related with two roots and furcation was observed. Asymptomatic chronic apical periodontitis was diagnosed. Hemisection was planned with distal root of related tooth after consultation with department of surgery instead of tooth extraction. At first, all canals were prepared by Mtwo rotary nickel-titanium files with a Standart technique under irrigation with 5.25% sodium hypochlorite. Calcium hydroxide was placed as intracanal medicament and access cavity was sealed with temporary filling material. One week later, the tooth was asymptomatic; final irrigation protocol is applied with 5.25% sodium hypochlorite, 17% EDTA, alcohol and 2% Klorheksidine. Then root canals obturated with AH-Plus sealer and MTwo gutta-percha.

RESULTS

The patient was recalled after 2 and 6 months for clinical and radiographic follow-up. On clinical examination; the tooth was functional without sensitivity to percussion or palpation. The periapical radiograph showed regression in the size of periapical radiolucency with signs of osseous repair. There is no need of hemisection of distal root of the mandibular molar tooth.

CONCLUSION

Tooth with a wide periapical lesion can be healed with a proper root canal treatment. Before surgical procedures, to be given the chance for conservative treatment.

Keywords : large periapical lesion, furcal lesion, nonsurgical endodontic treatment

An Unusal Occurrence of Epidermoid Cyst in Maxilla: A Case Report

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Epidermoid cysts are benign malformations originated from ectoderm. Dermoid, epidermoid and teratoid cysts are types of cystic teratomas and they can be found anywhere in the body, especially in areas where embryonic components fuse together. Histologically all types of cystic teratoma show close proximity with each other. Epidermoid cysts are lined by only epidermal-type squamous epithelium, with the existence of skin appendages these cysts are termed as dermoid cysts. In most cases (80%) cystic teratomas are seen in ovaries and sacral region of the body, approximately 7% of them have been published in head and neck region. Localization of these cysts in oral space is extremely rare with the rate of 1.6%. Epidermoid cysts can be congenital or acquired. Clinically, they are slowly-enlarged, painless, well-encircled firm swellings. Treatment of the epidermoid cysts is enucleation and curettage. We will report a case of epidermoid cyst involving anterior and posterior left maxillary region and extended to the infratemporal area with its surgical treatment and postoperative follow-up.

Keywords : epidermoid cyst, jaw, dermoid, head and neck, maxilla.

Removal of Maxiller Torus Using Er:YAG Laser

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Removal of Maxiller Torus Using Er:YAG Laser

Objective

Torus may be considered as specific exostosis, formed by a highly dense and strictly limited amount of bone marrow, covered with a thin mucosa, easy to flap and poorly vascularised. Clinically, discovering of torus frequently diagnosed in occasional way because those pathologies are asymptomatic.

The aim of this paper is to demonstrate that Er:YAG laser may be an effective help in the surgical treatment of an exostosis in the vestibule of the alveolar ridge of maxilla .

Methods

A 38-years old Female was referred to our clinic with a complaint of esthetics and pain. Medical and family histories of patient were noncontributory. Oral examination revealed an exostosis in the vestibule of the alveolar ridge of upper jaw. This exostosis covered the anterior region of upper jaw were surgically eliminated via the Er:YAG laser using the following paratemeters: output power ranging 250 mJ, frequency 20 Hz, pulse duration 100 µsec, avarage power 5W, 2940nm non-contact mode. Surgery is conducted by remodelling the surface via bone-burr plus air-water spray.

Results

After three week, the wound healed in good conditions.

Conclusions

Er:YAG laser is an optimal instrument to excise exostosis even if the time required for the intervention is more than the time needed by bony burs and high speed instruments. Er:YAG laser also remodels the surface via the so-called explosive vaporization of the target tissue. Each shot (pulse) takes of a small amount of bone and the repetition rate as well as the pulse duration, the spot size diameter, and the fluence are related to the efficiency of laser remodelling. As a consequence of a larger spot size, the energy delivered on the target tissue is reduced, fluence being expressed in Joules per centimetre square. Good clinical healing process obtained with this wavelength could be related to the reduction of target tissue heating, the decontamination, the absence of smear layer production that could disrupt the healing process, plus the biostimulation of the irradiated tissues.

Keywords : er:yag laser, torus, dentoalveolar surgery

Limited mouth opening due to condyle and zygomatic bone fracture

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Reduced mouth opening is a common clinical problem and it is caused by variety of reasons such as infection, trauma, dental treatment, temporomandibular joint disorders, tumours, radiotherapy and chemotherapy and congenital problems. Hence, it is essential to examine the underlying factors to deal with this challenging situation successfully.

Mandibular fractures are extremely frequent in facial trauma, and 19–52% involve the condyle. Condylar fracture and disc play an important role in the development of TMJ ankylosis. Ankylosis is most likely caused by intracapsular injury followed by insufficient jaw movement and a long period of intermaxillary fixation. Facial asymmetry, malocclusion, growth disturbance, osteoarthritis and ankylosis are some of the late complications of traumatic TMJ injuries. Potential functional problems include limitation in opening, deviation on opening, and malocclusion. Zygomatic arch fracture, if depressed, may also restrict the movement of coronoid process and can cause reduction in mouth opening. Treatment goals are adequate mouth opening for mastication and speech, restoration of facial symmetry, and reduction of pain.

In this case, we present a patient who had a history of facial trauma with complaint of inability to open the mouth and our surgical management.

Keywords : tmj, condylar fracture, zygomatic arch depression, condylectomy, tmj trauma, tmj surgery

Bisphosphonate Related Osteonecrosis of the Mandible Associated with Dental Implants

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Bisphosphonates (BPs) are antiresorptive agents that inhibit osteoclast activity, prevent resorption of bone and reduce its turnover. BPs are indicated in the treatment of bone diseases such as osteoporosis, osteopetrosis, paget' disease and bone metastases of solid tumors such as breast cancer, prostate cancer and management of osteolytic lesions such as multiple myeloma. A complication of these drugs is bisphosphonate related osteonecrosis of the jaws (BRONJ) was first described by Marx et al. in 2003. The American Association of Oral and Maxillofacial Surgeons categorized BRONJ according to clinical manifestations into 4 stage and recommends different treatment modalities for each stage.

The aim of this case report is to present a patient who was diagnosed stage 3 BRONJ associated with dental implant placement, and the treatment of patient. 78 year of male patient had history of prostate cancer that had been treated with zoledronic acid (I.v., Zolenat®, 4mg/5 ml month) for 3 years. He had undergone dental implant surgery in another dental clinic one year ago and had 2 dental implants in the anterior mandibular region. He was referred to our department with the complaint of pain, extra oral fistula and swelling in mandible for six months. Clinical and radiological examination showed stage 3 osteonecrosis of the jaw, which is between, right retro molar and left molar region with an extra oral fistula at the submental area. The three dimensional model and cone-beam computer tomography scans were used for pre-surgical planning. After the antimicrobial therapy, the patient was treated with the marginal mandibular resection of the anterior part of the mandible without reconstruction.

In conclusion, dental implant therapy may cause stage 3 BRONJ in patients who had a history of long term IV bisphosphonate usage. The three dimensional model and cone-beam computer tomography scans may be useful tools for pre-surgical planning. Awareness for bisphosphonate treatment should be necessary before dental implant surgery, especially in geriatric patients.

Keywords : bisphosphonate; dental implant; osteonecrosis

Osteomyelitis Accompanied with Fibro-osseous Lesion of Mandible

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Fibrous dysplasia is a benign, rare and idiopathic skeletal disorder characterized by replacement and expansion of medullary bone by disorganized fibro-osseous tissue. Osteomyelitis is defined as an inflammatory condition of the bone that begins as an infection of the medullary cavity, rapidly spreads to the Haversian systems and eventually involves the periosteum of the infected areas

A 56-year-old woman was referred to our clinic with a complaint of severe pain, edema, extensive swelling and intraoral fistula in the right side of her mandible. Facial asymmetry and the swelling in the right side of mandible increased for 10 days and had been existing for 30 years. Routine radiographs and a cone beam computerized tomography scan demonstrated an extensive and irregular osseous lesion in the right side of mandible, where lytic areas combined with sclerosing, high density areas with a "ground glass" appearance. Histologic examination showed sclerotic type trabecular bone with the presence of necrotic bone formation involving resorption and apposition lines suggesting diffuse sclerosing osteomyelitis with a surrounding fibro-osseous lesion, which was clinically and radiologically consistent with a diagnosis of fibrous dysplasia.

Keywords : fibro-osseous lesion, osteomyelitis

Maxillary Odontogenic Cyst/Tumors Expanding to Nasal and Sinus Cavities: The Role of CBCT Analysis on Treatment Planning

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Objective:

The aim of this study is to present CBCT findings of odontogenic cysts and tumors extended into the maxillary sinus and nasal cavity. Also assuring the role of buccal and palatal cortical bone resorption and sinonasal symptoms in the treatment planning.

Patients and Methods:

This study was done by surveying preoperative CBCT findings and operation records of patients who had surgical treatment of cystic lesions in the maxillary sinus region which performed between November 2012 and March 2014 in Gaziantep University, Faculty of Dentistry, Department of Oral and Maxillofacial Surgery. Initially 69 maxillary cystic lesions were detected, after that 28 odontogenic cysts and tumors which showed extension into the nasal and maxillary sinus were included in the study.

The buccal and palatal cortical bone resorption and expansion that detected in the CBCT of lesions and maxillary sinus symptoms with the nasal bone resorption and expansion, which led to nasal airway obstruction, were evaluated.

Results:

In our study; 22 radicular cysts (78.5%), 3 dentigerous cysts (10.7%), 2 nasopalatine duct cyst (7.2%), 1 (3.6%) odontogenic keratocyst tumor have been identified. The patients consisted of 19 men and 9 women with ages of 8-59 (mean: 30.6), respectively. Nasal floor bone resorption were detected in 21 patients whose 7 of them had septum deviation and expansion of nasal floor resulted in nasal airway narrowing. Expansion to maxillary sinus were detected in 16 cases that 13 of them showed mucosal thickening of sinus beside maxillary sinusitis symptoms. While, only a thin opaque border of cyst epithelium within the sinus of two cases were observed. Buccal or palatal cortical bone

resorption was observed in all cases. Cystic lesions which related to nasal airway obstructions and severe resorption of buccal or palatal cortical bone were enucleated after decompression.

Conclusions:

Due to the complex three-dimensional anatomy of maxillary region, CBCT carries great importance in diagnosis of asymptomatic sinonasal signs related to the huge cystic lesions in this region. At the same time playing an important role in treatment plan of such lesions.

Keywords : cone beam computed tomography, odontogenic cysts, odontogenic tumors, maxillary sinus

Management of Keratocystic Odontogenic Tumours: Multicentre clinical experience

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The term odontogenic keratocyst as a distinct entity was first described by Philipsen, who used to describe jaw cysts exhibiting keratinization of their epithelial linings. In 2005, the World Health Organization (WHO) re-classified OKC and labelled it as keratocystic odontogenic tumor (KCOT). The keratocystic odontogenic tumor is a relatively rare, benign neoplasm which develops in the jaws, arising from the dental lamina or basal cells of the oral epithelium. It is defined as a benign uni or multicystic, intraosseous tumor of odontogenic origin, with a characteristic lining of parakeratinized stratified squamous epithelium and has potential for aggressive, infiltrative behaviour. KCOTs have a predilection for males and occur mainly in the second and third decade of life, occurring most commonly in the mandible, mainly in the posterior body, the angle region and the ascending ramus. Recommended treatment techniques are enucleation with chemical cauterization (Carnoy's solution), enucleation with cryotherapy (liquid nitrogen) for smaller cyst, marsupialization or decompression followed by secondary enucleation in the large cyst. Diagnosis and treatment experience of 28 cases with KCOT in two centres is presented in the present report.

Keywords : keratocystic odontogenic tumor

Assessment of Pharyngeal and Maxillary Sinus Volumes in Unilateral Cleft Lip and Palate Patients Using CBCT Analysis

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Objective: The aim of the present study was to analysis the 3-dimensional pharyngeal airway and maxillary sinus volumes in unilateral cleft lip and palate (u-CLP) patients and to investigate whether possible significant relationships and correlations among airway and maxillary sinus volumes using cone-beam computed tomography (CBCT).

Patients and Methods: A retrospective review of all patients with u-CLP who underwent CBCT imaging (n = 12) and age-gender matched controls (n = 12) who underwent preoperatively CBCT imaging was carried out. Pharyngeal airway (subdivided to upper and lower) and maxillary sinus volumes were calculated and analyzed with Planmeca Romexis software. Statistical analysis was performed using SPSS V.21.0.

Results: There were no significant differences between two groups except for the Anterior – Posterior Nasal Spine length in u-CLP group was significantly lower than control group (p=0.001). The pharyngeal airway and maxillary sinus volume variables did not differ significantly between the u-CLP and control groups. The sinus volume in the u-CLP side was smaller than non-cleft side. The total pharyngeal airway volume was higher in u-CLP group than control. There were no statistically significant correlations between total pharyngeal airway and maxillary sinus volumes. (p>0.05).

Conclusions: These preliminary findings suggested that craniofacial structures could be affected by u-CLP. A further large series are required to determine whether possible correlations between facial structures maxillary sinus and oro-pharyngeal and nasal airway volumes.

Keywords : cleft lip and palate, maxillary sinus, cone beam computed tomography, pharyngeal airway

Ossifying Fibroma of Mandible: A Case Report

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Ossifying fibroma is an uncommon benign tumor of the craniofacial skeleton thought to originate from the periodontal ligament. OF is classified as a cemento-ossifying fibroma in the 1992 WHO classification of odontogenic tumors and known as a type of fibro-osseous lesion of the jaws. Histopathologically; it has osseous, cemental and/or calcified deposits. This feature, along with tooth-bearing regions, supports a periodontal ligament origin. Radiographically, OFs may present a well demarcated unilocular or multilocular radiolucent lesion that might have different degrees of opacification inside. OFs have a marked predilection for female patients with female/male ratio being 5/1. The majority of cases are in the molar-premolar region of the mandible. Treatment of OF contains complete removal of the tumor mass by enucleation or surgical resection. Small lesions can be treated conservatively by curettage or enucleation. On the other hand, larger lesions will require radical surgical resection.

A 38 years old female patient referred to our clinic with pain and swelling in the right side of mandible premolar-molar region. Radiologic appearance of lesion was multilocular radiolucent. Incisional biopsy and histopathological diagnosis of OF was done. Under general anesthesia, lesion was removed by local invasive curettage and the histopathological diagnosis was confirmed.

Keywords : ossifying fibroma

The Nd:YAG Laser Treatment of Hemangioma

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The Nd:YAG Laser Treatment of Hemangioma

Objective

Vascular lesions rise from abnormalities in blood vessels or endothelial proliferation. Capillary hemangiomas are formed by small capillaries surrounded by a layer of endothelial cells in a connective tissue stroma.

In the oral cavity, high-power lasers represent an excellent therapeutic option for hemangiomas and vascular malformations. Their coagulative properties allow for the performance of procedures without the risk of bleeding, which promotes a better healing pattern and a differentiated postoperative appearance

Methods

In this case study, we report successful treatment of intraoral capillary hemangioma by Nd:YAG laser.

Case 1

A 34 -year- old man with a hemangioma on the right side of the upper lip measuring approximately 12 mm in diameter. On anamnesis, it was registered that this lesion a congenital malformation. His complaints include esthetics and bleeding

1064nm, 300µm fiber

Pulse duration: 100µs

Pulse energy: 150mj, Frequency: 20Hz

Average power: 3 W

Case 2

A 27 – year- old woman with a hemangioma on the left side of vestibuler anterior mandible. On anamnesis, it was registered that this lesion a congenital malformation. Her complaints include esthetics and bleeding

1064nm, 300µm fiber

Pulse duration: 100µs

Pulse energy: 250mj, Frequency: 20Hz

Average power: 5 W

Results

Edema and discrete superficial necrosis were observed after sessions, which were well tolerated by the patients

No bleeding was observed during surgery which provided better vision for surgeon and resulted in a minimally invasive procedure. According to results, ND:YAG laser can be considered as a conservative modality in treatment of oral capillary hemangioma.

Conclusions

The use of laser has several advantages over the conventional surgical technique, since it reduces the duration of the intervention and the amount of required local anesthesia and produces a hemostatic effect that improves visibility of the surgical area. This technique is easy to perform and eliminates the need for sutures. The resulting scar is minimal and there is no evidence of tissue retraction. Laser provides better postoperative appearance, with lower amounts of edema, bleeding, infection, and pain, and, thus, lower need for medication.

Keywords : hemangioma, nd:yag laser, oral surgery

Custom-made Decompression Stents For Different Located Odontogenic Cysts and Tumors

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Objective: Decompression procedures have been frequently used for treating cavitory bone lesions and for providing a new bone formation by decreasing osmotic pressure and the amount of released interleukin- α . Several techniques have been described for maintaining fistula between the cyst and the oral environment, including modified decompression tubes or stents made of plastic, rubber, polyethylene, acrylic, titanium, and hydroxyapatite. Some problems commonly encountered using these decompression tubes include the loss of the tube—which requires reinsertion or loosening the sutures—tissue irritation by sutures, or multiple tubes insertion procedures. We aim to present the efficiency of different located, custom-made decompression stents for the treatment of large expansive cystic lesions.

Patients and Methods: Ten patients (six males, four females) with large expansive cystic lesions attended the Department of Oral and Maxillofacial Surgery, Faculty of Dentistry at Gaziantep University. The patients' ages ranged from 7 to 51 years (mean: 23.1 years of age). The lesion was deemed appropriate for decompression after the incisional biopsy was performed in all patients. Five radicular cysts, three dentigerous cysts and two keratocystic odontogenic tumors were diagnosed. After histopathologic examination, according to lesion location, the roof of the cystic cavity was removed and impression was then obtained. The ideal length of the acrylic stent entering the cavity was determined by radiographic examination of the extent of the lesion. An acrylic custom-made stent, which extended the cyst cavity and retention with a 0.8 mm stainless steel wire clasp in the undercut around the periphery of the adjacent dental crown, was made. Care was taken to ensure that the customized stent did not interfere with occlusion. All patients were instructed how to apply self-irrigation with saline, using a 20 cc syringe twice daily, and how to remove and insert their stents.

Results: The majority of the lesions (six patients, 60%) occurred in the posterior region of the mandible. Three maxillary lesions (two radicular cysts and keratocystic odontogenic tumor) were found, located in the anterior region. Six mandibular and four

maxillary acrylic stents were made. All patients tolerated the procedure well with no complications during decompression.

Conclusions: The present custom-made stents allowed for maintaining the patency of the opening and provided easy cleaning, installation, and removal during the decompression phase. This method is considered to be better than other decompression tubes—which are sutured adjacent to soft tissues—due to the lack of trauma.

Keywords : odontogenic cysts, decompression, odontogenic tumors, stent

A Case of Unilateral Condylar Hyperplasia Treated with Temporomandibular Joint and Orthognatic Surgery

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Condylar hyperplasia is a rare condition that causes overdevelopment of the mandible, resulting in facial asymmetry, occlusal disturbance, and joint dysfunction. Prominent features of condylar hyperplasia include an enlarged mandibular condyle, elongated condylar neck, outward bowing and downward growth of the body and ramus of the mandible on the affected side, causing swelling of the face on that side and flattening of the face on the contralateral side. A 25-year-old female was referred to our clinic complaining of mandibular asymmetry and insufficient mouth opening for last few years. There was no history of trauma. In the clinical examination significant facial asymmetry, with deviation of the chin to the left was detected. The maximum mouth opening was 22 mm. A panoramic radiograph showed elongation of the right condylar neck, with unilateral downward projection of the mandibular angle and compensatory changes in the maxilla. The right condyle was totally exposed with preauricular incision, and a condylectomy was performed under general anesthesia. The intraoperative maximum mouth opening was 35 mm. Afterwards orthognatic surgery was planned to correct facial asymmetry and occlusal cant. Approximately 7 mm bone was removed from the right side with Le Fort 1 osteotomy and unilateral sagittal split osteotomy was performed for ideal occlusion. Finally, optimum facial esthetic was obtained with genioplasty. Traditionally in cases without abnormally high growth activity, bilateral mandibular ramus osteotomy is performed for treatment of facial deformity. In the simple cases, a unilateral mandibular ramus osteotomy suffices to restore occlusion and symmetry, whereas in the fully developed conditions with dentally compensated unilateral condylar hyperplasia and maxillary cant, as in our case, spatial correction is required with Le Fort osteotomy and genioplasty. In addition, condylectomy was performed to increase the maximum mouth opening. Finally; facial esthetic, mouth opening and jaw movements were satisfactory after operation.

Keywords : condylar hyperplasia, condylectomy, orthognatic surgery.

Alveolar Fracture of Mandible with Displaced Segment: A Case report

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Dental trauma is an important public health problem and negatively impacts on the person's quality of life. An external impact causes the traumatic tooth lesions, which may result in different injury types to teeth and supporting structures. Alveolar fracture is characterized by the involvement of multiple teeth and alveolar process mobility with movement as a unit of the displaced segment. Posttraumatic healing after alveolar fracture would be implied in pulp revascularization/reinnervation and periodontal fiber reorganization/recovery. This paper presents a clinical case of trauma in a 60 years old patient exhibiting the displacement of segment with alveolar fracture. The bone and teeth were repositioned by digital pressure, stabilized by semirigid splint, and followed up for clinical and radiographic findings in soft/hard tissues and presence of pulp/periodontal pathologies.

Keywords : trauma, alveolar fracture

Diode Laser-Assisted Vestibuloplasty

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Diode Laser-Assisted Vestibuloplasty

Objective

In fully edentulous patients, maxillary atrophy can be defined as the advanced physiological reduction of alveolar apophyses. This can be due to multiple factors among which we can count pre-existent periodontal disease, endocrine and systemic disorders, diet factors, anatomical and mechanical considerations, gender, and facial morphology. It might be one of the most incapacitating oral conditions; the reason for this lies in its nature which is chronic, progressive, accumulative and irreversible. It represents one of the main problems when trying to rehabilitate a totally edentulous patient with a tissue-borne full denture, since this conventional treatment is acceptable when there is sufficient alveolar ridge to support the denture. Nevertheless, in cases when alveolar atrophy is advanced, patients affected with severe retention problems can benefit from pre-prosthetic surgery procedures in order to obtain a wider bony base

Methods

A 70 year old female patient consulted to our services dissatisfied with esthetic appearance as well as function. Stomatological examination revealed clinical absence of all teeth, thickened upper alveolar ridge, with optimum height, collapsed lower ridges with advanced resorption. Lack of retention present due to resorption of lower ridges prompted pre-prosthetic surgery in order to deepen the vestibule with the help of a laser beam. Operation was performed with 970 nm Diode laser (SIROLaser Xtend, SIRONA, Germany). The laser was applied with 320 µm laser handpiece. The parameters of laser application were; Continuous mode, 3 W average power.

Results

The patient was follow up after 1,3,5 days; 1,3,6 weeks after procedure. The wound healed in good conditions. No postoperative complication could be observed.

Conclusions

Pre-prosthetic surgery of the vestibule accomplished with laser beam offers favorable clinical results during and after the operation which become evident with the following: a relatively short operative period, small amounts of anesthesia required, suitable hemostasis, anti-inflammatory and analgesic effect, not requiring sutures and a short healing time which facilitates prompt impression taking in order to obtain work models and thus manufacture dentures.

Keywords : diode laser, vestibuloplasty, preprosthetic surgery, oral surgery

Chronic Osteomyelitis of the Lower Jaw Mimicking Stafne Bone Cyst

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Chronic osteomyelitis of the jaw (COMJ) is related to bacterial infection and subsequent chronic inflammation which result in osteolysis and reactive bone formation. It is more common in mandible than maxilla because of the poorer vascular supply. Clinically pain, swelling, low grade drainage and inflammation of the infected site is observed. If chronic osteomyelitis is suspected from the clinical examination, in addition to conventional radiography, computed tomography (CT) is the choice of imaging. CT is important for the demonstration of sequestra and periosteal new bone formation which allows accurate diagnosis. This poster presentation reports, a 31-year-old male with a complaint of caries in his lower jaw. Clinically, inflammation of the gums due to bad oral hygiene was observed; however, neither swelling nor pain or suppuration was present. Panoramic radiography revealed a radiolucent unilocular lesion in proximity with mandibular canal in angulus region mimicking stafne bone cyst. Treatment consisted of the extracted molars and sequestrectomy with curettage of the defect in combination with antimicrobial therapy. Histopathology confirmed chronic osteomyelitis. At 6-month follow up CT, there was no recurrence with reappearance of a normal trabecular bony structure and the patient continues to be followed-up regularly.

Keywords : chronic osteomyelitis, stafne

Non-syndromic Multiple Keratocystic Odontogenic Tumors of Jaws: A Rare Case Report

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Presence of multiple cystic lesions in a patient must alert the possibility of a syndromic condition such as nevoid basal cell carcinoma (Gorlin-Goltz), Ehler-Danlos, Orofacial digital or Noonan syndrome. Multiple cysts with impacted teeth in a non-syndromic patient is rare and differential diagnosis includes dentigerous cyst and keratocystic odontogenic tumor (KCOT). This poster presentation reports a 17-year-old male with a complaint of swelling on left side of the upper jaw. Clinically, bilateral deciduous maxillary canines and angulated permanent laterals with premolars were observed. Radiologically, unilocular, radiolucent cystic lesions in three quadrants with impacted teeth was observed. Consultation with medical genetics department revealed patient was non-syndromic. Histopathological examination confirmed KCOT in lesions from all quadrants. Treatment consisted of extraction of the impacted teeth, marsupialization before surgical enucleation and chemical cauterization with carnoy solution. At 3 years follow-up there was no recurrence with reappearance of a normal trabecular bony structure and the patient continues to be followed-up regularly.

Keywords : non-syndromic multiple cyst, gorlin-goltz, keratocystic odontogenic tumor

The Effect Of Topically Applied L-Carnitine And Hyaluronic Acid On Mucosal Wounds: A Preliminary Study

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Background: Accelerating wound healing after surgery is beneficial for in oral tissues. Antioxidants are considered to prevent, limit, or repair oxidative damage. Application of antioxidants may promote surgical wound healing.

Hyaluronic acid (HA) is a linear polysaccharide found in the extracellular matrices of skin. HA is a potent anti-inflammatory agent and modulates wound healing.

L-carnitine (LC) is an endogenous molecule and has been observed to protect cells against oxygen radicals.

Objectives; This preliminary study aimed to investigate the effects of L-carnitine and hyaluronic acid on oral mucosal wound healing in a rat model.

Methodology: Thirteen male Wistar-albino rats were divided into two main groups and two subgroups. A 1.5-cm linear 2-mm deep incision was created on the buccal mucosa of each rat. Twice a day HA (group one) and LC (group two) applied topically on the wounds. On the third and eighth days, three rats from each group were sacrificed.

Results and Conclusion: Histopathological investigation revealed that reepithelization had occurred in all test animals in three days whereas it was not completed in controls. There were mildly cellular and vascular granulation tissues present. No obvious differences were observed in granulation tissue formation after eight days between all test groups. Newly formed epithelium is more acanthotic in control groups. Locally applied L-carnitine and hyaluronic acid appeared to have little difference on wound healing on a preliminary basis. Further studies await confirmation of those findings.

Keywords : wound healing, mucosal wounds, antioxidants

Autogenous Tooth Transplantation in a Young Patient

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Autogenous tooth transplantation is the surgical movement of a tooth from one location to another in the intraoral region. This operation has achieved high success rates and is an excellent option for treatment of the missing tooth. Although the indications for autotransplantation are narrow, careful patient selection coupled with an appropriate technique can lead to exceptional esthetic and functional results. The most advantage side of this procedure is that placement of an implant-supported prosthesis or other form of prosthetic tooth replacement is not needed. Here report a case of 14 years of female who had congenitally missing lower second premolars and her upper second molars are transplanted to lower jaw. After the surgery, semi rigid splint for four weeks is done and there is no sign of resorption in the 3 months follow up. This poster presentation aims to highlight the indications for autogenous tooth transplantation instead of waiting for implant treatment.

Keywords : dental transplantation, autogenous, implant

Radicular Cyst on Palatinal Side with Bone Expansion :A Rare Case

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Radicular cysts arise from epithelial residues in the periodontal ligament as a result of low grade irritation. (inflammation). Radicular cysts are common inflammatory odontogenic cysts arising from epithelial residues (i.e. rest of Malassez) due to perapical periodontitis following death and necrosis of pulp . The lesion arises from the proliferation of epithelial rests of Malassez induced by inflammatory cytokines and growth factors released by inflammatory cells found in chronic apical periodontitis following root canal infection and pulp necrosis. The inflammation follows upon necrosis of the dental pulp and cysts arising in this way are found most commonly at the apices of non-vital teeth. In deciduous teeth the furcation area is initially involved. They may, however, also be found on the lateral aspects of the roots in relation to lateral accessory root canals - then called acollateral or accessory cyst. They may be the result of trauma in which case no caries will be seen. The most commonly involved deciduous teeth are mandibular molars (67%), maxillary molars (17%) followed by anterior teeth. Radicular cysts comprise about 52-68% of all the cysts affecting the human jaw.

Case report

37-year-old female patient with no systemic disease gave history of recurrent swelling and pain. The swelling was initially small, which gradually increased to the present size. On clinical examination, diffuse hard swelling was seen over the right maxilla, which was asymptomatic. Right maxillary palatal expansion was observed during Intraoral examination. Although they have not any fistula opening and palpation of this area felt the void inside in maxillar bone. While maintaining the integrity of the palatal cortical destruction. Due to the destruction of the palatal bone flap sulcus were designed palatal flap incision. The flap was achieved by removing the lesion was enucleated without spoiling the integrity of the cyst epithelium. Irregular bone contours were corrected, the flap was closed primarily.

Conclusion

Radicular cyst is an everyday disorder unearthed in the oral cavity which is asymptomatic when small and diagnosed incidentally on radiographic examination. This report highlights on the occurrence of maxillar radicular cyst, which is rare of its entity and shows the importance of radiographic examination prior to the removal of teeth. Moreover, coarse radicular cyst can lead to major rate of morbidity. Several treatment

options are available for a radicular cyst such as endodontic treatment, extraction of the offending tooth, enucleation with primary closure, and marsupialization. The surgical approach to cystic lesions of the jaws is either marsupialization or enucleation. The treatment of choice is dependent on the size and localization of the lesion, the bone integrity of the cystic wall, and its proximity to vital structures.

Keywords : cyst, palatal cyst, bone expansion

Evaluation Of Radiologic Changes In Cone Beam CT Images In Bisphosphonate Related Osteonecrosis Of The Jaws

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Objectives:

The aim of this study was to investigate the comparison of radiological parameters between the patients with bisphosphonate related osteonecrosis of the jaw (BRONJ) and healthy individuals, and detect the correlation between these parameters and stages in BRONJ on cone beam computed tomography (CBCT).

Materials and Methods:

The CBCT scans of patients with BRONJ (*group 1*, n=31) and control (*group 2*, n=25) were included into study. When the mandibular mental foramen region of patient was not in osteonecrosis that part called 'non effected side' in group 1. Four different measurements '1) Buccal, apical and lingual cortical width (BW, AW, LW) of the mandible in mental foramen region, 2) diameter and width of the mental foramen and diameter of the mandibular incisive canal, 3) buccal, apical and lingual intracortical CT radiodensity value (IRV) and 4) cancellous CT radiodensity value (CRV) in a 5 mm² region of interest were performed to compare between non-effected side in group 1 and group 2. BRONJ area in group 1 was divided into 3 regions, which consist of beginning, center and ending of the necrosis and measurements (buccal, apical and lingual IRV, CRV, BW, AW, LW) in these areas were compare to the symmetrical 'non effected side'. Correlation between measurements and grade of the BRONJ were analyzed statistically.

Results

This study includes 14 male and 11 female patients with mean 71 years (min: 46-max: 84). In the mean time, 2 areas were grade 1, 14 areas were grade 2 and 5 areas were grade 3 in 21 mandibular BRONJ sites; 3 were grade 0, 5 were grade 2 and 2 were grade 3 in 10 maxillary BRONJ sites.

Changes of the BW and AW, buccal and apical IRV and height of the incisive canal were statistically significant ($p_{BW}=0,07$, $p_{AW}=0,01$, $p_{B-IRV}=0,019$, $p_{A-IRV}=0,023$). BW and AW were increased

however IRV decreased in group 1 when compared to the control and narrowing of the incisive canal was prominent.

Decreasing in buccal and apical IRV at the beginning of the osteonecrosis was significant than 'non effected side' in upper jaw ($p_{B-IRW}=0,018$, $p_{A-IRW}=0,041$). Increase in buccal IRV and CRV at the beginning; apical IRV and CRV at the center and buccal, apical and lingual IRV and CRVs at the ending of necrosis were significant statistically in the lower jaw. Furthermore, it is detected that there was a negative correlation between thickening of the apical cortex at the center of the necrosis and grade of the BRONJ.

Conclusions

BRONJ can be effectively diagnosed with CBCT. There are significant changes in density and width at the apical and buccal areas of the mandible in bisphosphonate treated patients compared to healthy individuals. Apical cortical thickening and narrowing of the incisive canal may potentially useful tool in the detection of bone dimensional changes caused by bisphosphonates. Further studies with more patients are needed to reach certain consequences in correlations of BRONJ grades.

Keywords : bisphosponates, osteonecrosis, computed tomography

Central Odontogenic Fibroma

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Central odontogenic fibroma has been described as a rare, slow growing tumor of the jaw. It was originally thought to occur, almost exclusively in the mandible.

A 35-year-old female patient, presented with an asymptomatic slow growing lesion on the maxillary anterior region which caused expansion of the buccal and palatal cortex. The mucosa covering the mass was firm and of a normal colour. There was no facial asymmetry and no cervical lymphadenopathy. The radiographic evaluation showed the presence of a unilocular radiolucent lesion associated with the root of the central, lateral and canine teeth. The margins of the lesion showed cortical perforation on the palatal side and it did not appear to cause root resorption of the teeth. The lesion removed under local anesthesia and the excised specimen measured 1×1×0.6 cm. The microscopic evaluation of the specimen showed a myxoid stroma involving collagen fibers and spindle shaped fibroblastic cells and the connective tissue was involving a large amount of immature odontogenic epithelium clusters. Based on the clinical, radiographic and histologic findings, a diagnosis of central odontogenic fibroma was made. The necessary post-operative advice was given and she was examined thoroughly 2 and 4 weeks after surgery with no complications reported.

Although the central odontogenic fibroma is a rare lesion of the jaws, it should be considered as a differential diagnosis due to the close resemblance with common lesions.

Keywords : central odontogenic fibroma, neoplasms, odontogenic tumors

Marsupialization As A Treatment Option For Large Odontogenic Keratocysts: 2 Case Reports

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OBJECTIVE

Keratocystic odontogenic tumor (formerly odontogenic keratocysts) (KOCT) is a unique cyst because of its locally aggressive behavior, high recurrence rate, and characteristic histological appearance and comprises approximately 11% of all cysts of the jaws .KCOTs may occur in any part of the jaws with a considerable predilection for the posterior body of the mandible and ascending ramus with a peak incidence in patients between 10 and 30 years of age and a slight male predominance. A noticeable number of cases, however, are diagnosed incidentally during routine dental examination, and the frequency of such cases has been reported to range from 5.5 to 42.5%. Clinically, the parakeratinizing lesions are characterized by aggressive growth and a tendency to recur after surgical treatment.

METHODS

Case Report I

A 32 years old male patient, with complain of swelling, parasthesia and pain in the left ramus of mandible. CBCT reconstructions showed 25.3x52x9.1 mm in diameter radiolucent, large lesion with left third molar tooth. Perforation of buccal and lingual cortical bone was seen. Histopathological examination of aspiration biopsy showed ortho keratotic keratocyst.

The patient operated under local anesthesia. After third molar extraction, a short piece of the tubing from an anesthetic nasopharyngeal airway sutured to oral mucosa. Histopathologic result of insizional biopsy supported the histopathological examination of aspiration biopsy. In rutin controls the tube changed with a shorter one. After 8 months tube was removed completely.

Case Report II

A 21 years old female patient, with complain of swelling and pain in the right ramus of the mandible. The patient had no systemical disorders. CBCT reconstructions showed 29,8x62x15,84mm in diameter radiolucent, large lesion with right third molar tooth.

Perforation of buccal and lingual cortical bone was seen. Histopathological examination of aspiration biopsy showed orthokeratotic keratocyst.

The patient operated under general anesthesia. Second molar was extracted. Third molar was left to avoid mandibular fracture. a short piece of the tubing from an anesthetic nasopharyngeal airway sutured to oral mucosa. Histopathologic result of insizional biopsy supported the histopathological examination of aspiration biopsy. Among 6 month period shrinkage of the cyst and eruption of third molar was observed.

RESULTS

Complete removal of OKCT can be difficult because of the thin, friable epithelial lining, limited surgical access, skill and experience of the surgeon. There for Aggressive treatment such as peripheral ostectomy, chemical curettage with carnoy's solution and resection is recommended.

CONCLUSION

Surgical treatment may vary and can include resection, curretage, or marsupialization to reduce the size of large cysts before surgical excision. After surgical treatment, it is important to make periodic post treatment clinical and radiographic examinations to detect any recurrence.

Keywords : keratocystic odontogenic tumor, marsupialization

The Rare Placement of the Basal Cell Adenoma Resembling Pleomorphic Adenoma: A Case Report

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Basal cell adenoma is a rare benign tumour resembling pleomorphic adenoma but with basaloid cells and peripheral palisading. Its most frequent location is the parotid gland. It usually appears as a firm and mobile slow-growing mass. Histologically, isomorphic cells in nests and interlaced trabecules with a prominent basal membrane are observed. It is also characterized by the presence of a slack and hyaline stroma and the absence of myxoid or condroid stroma. In contrast to pleomorphic adenoma, it tends to be multiple and its recurrence rate after surgical excision is high. Malign transformation is rarely seen (%4), more likely if dermal analogue variant. In this case report, we presented a buccal basal cell adenoma which located for 10 years. A 56 -year-old female with a painless buccal mass that slowly increased in size was referred to our clinic. Clinic examination and radiographic evaluation was determined painless, firm mass in the right buccal region. Lesion was excised with its capsule. Histopathological analysis confirmed the diagnosis of basal cell adenoma with no carcinomatous foci. The follow-up postoperatively showed good healing of the buccal mucosa.

Keywords : basal cell adenoma, buccal region, minor salivary gland tumor

Marsupialization as a Definitive Treatment for the Odontogenic Keratocyst

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Objective: : Keratocystic odontogenic tumor is a unique cyst because of its locally aggressive behavior, high recurrence rate, and characteristic histological appearance and comprises approximately 11% of all cysts of the jaws. The aim of this study is to show that the marsupialization method which is a conservative approach is the exact solution of multilocular keratocyst treatment.

Materials and Methods: 26 years old female patient applied to our clinic with swelling and pain symptoms on mandible anterior region. Clinical and radiologic assessments have been made. According to radiographic assessments of the patient where she only has swelling intraorally, a lesion has been found on her down-left side incisor region including 43, 44 numbered teeth. Under the local anaesthesia, operation has been performed for biopsy and marsupialisation after aspiration biopsies. By opening 1 cm window from vestibul area, drain is placed by taking biopsy specimen.

Results: As a result of histopathologic examination, patient's final diagnosis of odontogenic keratocyst, the multilocular keratocyst is healed after 4 months with marsupialization treatment. Any relapse hasn't been observed during the one year post-operative period. The patient is continuing her routine follow-ups in our clinic.

Conclusions: Odontogenic keratocysts are coming forefront with the high volume of relapse between the cystic lesions of the jawbones. According to the literature, the relapse volumes vary from 5% to 62%. When choosing the treatment options, the type of the lesion, location of the cyst, age of the patient criterions should be taken into considerations. The marsupialization method can be either used with enucleation and solitarily for the treatment of keratocysts. It is thought that marsupialization method which is a conservative approach, can successfully be used for the treatment of keratocysts.

Keywords : keratocyst, marsupialization, okc, cyst

The Use of The Pedicled Buccal Fat Pad For Closure of Oro-antral Fistulae After Tooth Extraction

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Objective: The oro-antral communication is an abnormal connection between the oral and antral cavities. Various factors such as infection, cysts, trauma, tumors, and even minor dentoalveolar surgical procedures can be involved in this pathogenic condition. The extraction of the maxillary posterior teeth, however, is the most common cause, because of the anatomically close relationship between the root apices and the maxillary antrum, and the thinness of the antral floor in that region. It may be difficult to heal spontaneously in medium- and large-sized defects and surgical closure with flap techniques become a necessity. The most common techniques are the buccal and palatal flap methods. Buccal fat pad in recent years has become a well accepted graft for covering intra-oral defects due to its advantageous properties.

Methods: A 25-year-old male patient was referred to our clinic due to pain in the extraction site of tooth #27. The patient reported that his tooth was extremely mobile and he removed it by himself one month ago but the extraction site did not heal. During intra-oral examination, an oro-antral fistula was observed. Patient was planned for closure of oro-antral communication with the pedicled buccal fat pad technique in local anesthesia.

Results: Uneventful healing was observed during 3-month of follow-up.

Conclusions: The use of buccal pad of fat has increased in popularity in the recent years because of its reliability, ease of harvest, low complication rate, rich blood supply, and minimal discomfort to patient. It can be concluded that the use of a pedicled buccal pad of fat is a logical, convenient and reliable method for the reconstruction of oral defects up to 4–5 cm in diameter in the ipsilateral side of the soft palate and posterior alveolar region of maxilla.

Keywords : buccal fat pad, oro-antral fistula, tooth extraction

Surgical Management of a Giant Epulis Fissuratum by Nd-Yag Laser: A Case Report

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Epulis fissuratum is a reactive tissue response which occurs due to excessive mechanical pressure of faulty dental prosthesis. A large epulis, like presented in our case, can cause pain, discomfort and bleeding during functions, like eating and speaking, and also can cause cosmetic problems. In this paper, a huge epulis fissuratum on maxillary labial sulcus and its surgical removal using Nd-Yag laser is presented.

Keywords : epulis fissuratum, nd-yag laser, fibrous hyperplasia

Allograft Supported Treatment of Benign Fibro Osseous Lesion: A case report

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Benign fibro-osseous lesions (BFOL) comprises of lesions that diverse, with the exception of fibrous dysplasia, to those found in the rest of the skeleton. BFOLs of the jaws are cemento-ossifying dysplasia, fibrous dysplasia and cemento-ossifying fibroma. Radiological examination is prominent to their diagnosis because the pathology for all BFOLs is similar. Even though they range broadly in behaviour, from dysplasia, hamartoma to benign neoplasia with sometimes recurrence. In addition to, once diagnosed the treatment management of each is different. In cemento-ossifying dysplasia, this may mean doing nothing, simply because no treatment is generally suitable. Nearly all cemento-ossifying fibromas must be treated surgically, however cases of fibrous dysplasia are treated according to their clinical presentation, ranging from review and follow-up to surgery necessary to save the patient's view or reduce facial deformity. The most significant and frequent features of the BFOLs differential diagnosis is discussed with assistance of a flow diagram.

In this study, we present a patient of BFOL which were treated with allograft reconstruction.

Keywords : benign fibrous lesion, allograft, reconstruction, facial deformity

Oral oncocytoma of minor salivary gland: A rare entity

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Oncocytoma is a benign tumor arising from the oncocytes which line the duct of salivary glands and often occur in major salivary glands. They occur very rarely in the minor salivary glands. They present with facial swelling and solid solitary masses in palpation. In this report a 65 year old female patient with oncocytoma arising in intraoral minor salivary glands in the left buccal mucosa was presented

Keywords : oncocytoma; intraoral; minor salivary gland

A Case Report: Sinus Lifting With Autogenous Ramus Graft and Implant Placement

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The use of osseointegrated implants is a widely used procedure to restore the functional and aesthetic of the patients, with a high survival rate. However, alveolar bone resorption after tooth extraction, and/or pneumatization of the maxillary sinus, result in insufficient horizontal and vertical bone dimension for the implant placement in an ideal three-dimensional position. Sinus lift, firstly described by Boyne and James, is a surgical approach that enables the placement of appropriate length implants due to the elevation of the sinus membrane from the maxillary sinus, allowing the interposition of bone grafts, increasing the bone height in the posterior edentulous maxilla for the long term implant stability.

Surgical procedures for sinus lifting floor are commonly performed using autogenous bone grafts and/or bone substitutes. Autogenous bone graft still represents the gold standard for grafting materials especially due to its osteogenic, osteoinductive and osteoconductive characteristics as shown in a recent study. Bone quality and volume in maxillary sinus are a major determinant of implant prognosis and thus, its evaluation is important to the appropriate treatment plan. Esposito et al., showed that low bone quality as one of the most important factors associated with oral implant failures due to biological causes. So we preferred at this 72 years old male patient autogenous ramus graft before dental implant operation

At this case the patient's posterior maxilla region was edentulous for more than 30 years. His maxillary sinus' volume was so high and we preferred gold standart graft choice because of minimum complications after dental implant surgery with autogenous ramus graft.

Keywords : maxillary sinus lifting with ramus graft, autogenous sinus lifting, autogenous graft sinus lift.

Publication Number : PP - 266

Abstract Referance : 423

Oral Fibrolipoma: A Case Report

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Lipomas are benign soft tissue mesenchymal neoplasms and very common benign tumors of adipose tissue. Oral fibrolipomas are uncommon histological variants of the classic lipomas. Clinically oral fibrolipomas mostly affect the buccal mucosa. Etiology of fibrolipoma is typically chronic trauma. Large fibrolipomas, like presented in our case, are seen rarely in oral cavity because of slow progression pattern of the tumor. In this case report we present a 45 year's old male patient with a large fibrolipoma on his buccal gingiva and its surgical management.

Keywords : fibrolipoma, buccal mucosa, surgical excision

Oral Human Papilloma Virus: A case report

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Background:

Human papilloma virus (HPV) infects the epithelial cells include all areas covered by skin and/or mucosa such as the mouth interior, throat, tongue, tonsils, vagina, cervix, vulva, penis and anus. It transmitted by contamination with another area infected with a virus, allowing it to transfer between epithelial cells. While it is established now that sexual contacts, both conventional and oral, are means of transferring the HPV virus through direct skin to skin contact, it is still poorly understood what other transfer pathways may exist.

Human Papilloma Virus (HPV) has been known as a risk factor for different region of head and neck cancer and studies have also documented prevalence of the virus in the potentially malignant and non-malignant lesions ; nevertheless its exact association with the disease and its progression is still unclear.

Material and Method:

Male adult patient attended to our department complaining of white lesion in left side of palate appeared within 2 month. The patient was smoker without any systemic disease.

An excisional biopsy done under local anesthesia and sent to pathological examination.

Results:

Pathological and serological results showed Human Papilloma Virus. The patient informed and called for monitoring after 3 and 6 months postoperatively without any recurrences till now (about 2 years of monitoring)

Conclusion:

While human papillomavirus (HPV) is most notable for its involvement in cervical cancer, it should also be understood that HPV is commonly found in the oral cavity as well. As several studies have showed a connection between HPV and oral cancer, detecting these viruses in oral cavity is important to prevent oral lesions related to them. In conclusion it is important for both doctors and patients to be aware about treatment and prevention of such disease.

Keywords : human papilloma virus,hpv, oral hpv

Evaluation of the Correlation between N/L Ratio, MPV and Prognosis of Patients with Severe Dental Infection

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Objective: The aim of the study was to assess the value of pretreatment neutrophil-to-lymphocyte ratio (NLR) , mean platelet volume (MPV) and correlation between each of those markers with the prognostic factors such as the day of hospital stay, antibiotic doses in terms of relief time and disease progression in patients with severe odontogenic infection.

Metarials and Methods: A cohort of 100 patients with severe odontogenic infection in Erciyes University, Faculty of Dentistry, Oral and Maxillofacial Hospital between January 2014 and Agust 2014 was retrospectively examined. The age, gender, laboratory findings, the length of hospital stay, preoperative and postoperative fevers, antibiotic doses were recorded. The blood tests were performed on admission to the hospital before dental treatment. Hemoglobin, hematocrit, platelets, white blood cell, differential counts (neutrophil, lymphocyte, eosinophil, basophil, and monocyte) and percentages were determined using a blood counter (ADVIA 2120 Hematology System). The patients were divided into 2 groups according to their number of hospital stay. In *group 1*, the hospital stay was one or less than one day and in *group 2*, the number of hospital stay was more than one day. The N/L ratio and MPV was measured in all patients. The number of preoperative antibiotic doses and postoperative doses and total doses were recorded. The correlation in all patients between preoperative fever, preoperative antibiotic doses, postoperative antibiotic doses, total antibiotic doses and hospital stay with N/L ratio and MPV were analyzed. Pearson chi-square analysis or Fisher's exact test was applied for categorical variables. Spearman test was used for correlation analysis. Youden index was used to identify the optimal cut-off value. Sensitivity, specificity, positive and negative predictive values were calculated with 95% confidence intervals based on the identified cut-off value.

Results: There were positive and statistically significant correlations between N/L ratio and prolonged of hospital stay and postoperative antibiotic doses and total antibiotic doses. The optimum cut –off level of N/L ratio was 5.19 according to ROC analysis. (sensivity: 51, spesifity: 81). The patients in *group 2* had 5.19 and more N/L ratio. However, there was no correlation between MPV and any of those parameters.

Conclusion: N/L ratio may be a prognostic marker for patient with odontogenic infections. If the N/L ratio is more than 5.19; the patients may need more dose of antibiotics and stay more than 1 day at hospital for the treatment of odontogenic infection. However MPV can not be used as a marker for odontogenic infections.

Keywords : neutrophil-to-lymphocyte ratio, mean platelet volume, odontogenic infection

Conservative Management of a Ameloblastic Fibroma of the Mandible and Recovery of Associated Unerupted Teeth

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Ameloblastic fibroma (AF) is an uncommon benign mix odontogenic tumor that is characterized by proliferation of both odontogenic epithelium and odontogenic mesenchyme. The incidence of AF among all odontogenic tumors is between 1.5% and 4.5%. Conservative treatment (enucleation/excision/curettage) has been suggested in cases of early stage of lesions in younger patients and radical therapy (block/segmental/semiresection of jaws) for large lesions and recurrent lesion.

The aim of this case report was to describe a case of large ameloblastic fibroma in the mandible of a 9-year-old boy, which was treated conservatively with enucleation, and present orthodontic treatment of the unerupted teeth associated with ameloblastic fibroma.

It was decided to enucleate the unilocular radiolucent lesion with well-defined borders, extending from the left primary canine region to the first permanent molar in mandible. Initially, primary first and second molars were extracted and the lesion was enucleated. However the enucleation was not properly performed due to the impacted second premolar surrounded by lesion. Therefore, the impacted second premolar was gently extracted for curettage of the bone bed. The tooth was placed in sterile saline during this process. After the effective curettage of the bone bed, the tooth germ was replaced in the cavity gently and the operation site was closed.

Post-operative 1 year follow-up radiograph showed that excellent bone healing was observed in the bone cavity and root development also continued for the premolar teeth. Clinical examination revealed that the first premolar erupted in the oral cavity. A Hawley plate with unilateral expansion screw and a hook embedded into the labial arch was constructed to upright the first molar. The patient was instructed to use elastics and told to change the elastics daily.

This conservative approach achieved successful treatment of a large ameloblastic fibroma, reduced the risk of nerve damage and the risk of pathological fracture in a young patient and moreover the unerupted permanent teeth associated with ameloblastic fibroma was protected.

Keywords : ameloblastic fibroma, conservative approach, enucleation

Effect of Two Different Suture Techniques on Periodontal Health of 2nd Molar After Surgical Removal of Impacted 3rd Molar

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Impacted tooth surgeries are the most common operations performed in oral surgery procedures. Surgical removal of impacted molars has been the subject of many research for years. There are conflicting studies about periodontal health of adjacent molars. Some researchers argue that there is a positive effect of surgical extraction of third molar teeth on the periodontal health of 2nd molar where as other researchers argue that periodontal attachment loss, increased pocket depth, alveolar bone loss caused by the teeth extracted lead to periodontal problems. In our study, effect of two different suture techniques on periodontal health of 2nd molars after surgical removal of impacted 3rd molars were compared in terms of bleeding, plaque index, gingival-index and buccal-mesial-lingual pocket depth of 2nd molar. The clinical and statistical evaluation revealed that two different suture techniques did not demonstrate different effects on periodontal health of second molar.

Keywords : impacted teeth , Suture Techniques ,periodontal health

Conservative Management of Keratocystic Odontogenic Tumour with Marsupialization followed by Enucleation - A Case Report

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Introduction

Keratocystic odontogenic tumor (formerly odontogenic keratocysts) (KCOT) is an unique cyst because of its locally aggressive behavior, high recurrence rate, and characteristic histological appearance. The present case report describes the conservative surgical management of a large keratocystic odontogenic tumour in an adult patient with no evidence of recurrence at two years follow-up.

Case

33 year-old male patient admitted to clinic for routine follow-up. After taking panoramic radiograph and examining intraorally, a unilocular radiolucent cystic lesion with sclerotic border in mandibular ramus region was diagnosed incidentally. Incisional biopsy was done and at the same time impression for acrylic stent obturator was taken. Histological diagnosis of cyst was Keratocystic odontogenic tumor (KCOT) established. Control radiographs were taken every 6 month in 2 years follow-up. Supplementary enucleation was done after 6 month follow up when the cyst cavity was reduced.

Results

There was no complication and recurrence at 2 years follow-up. In addition, there was sign of healthy bone formation in the cavity. At 2 years follow-up radiograph, the radiolucency had reduced to almost completely.

Conclusion

Marsupialization has been considered as effective as a preliminary treatment for large KCOTs and it seems not to affect the recurrence tendency of this type of cyst. It is important to notice that the decompression procedure was done with supplementary enucleation reduced the requirement of marginal resection. And in this case, because of

the close relationship with mandibular canal, application of Carnoy's solution at cyst cavity was not preferred. There was no complication and recurrence at 2 years follow-up.

Keywords : keratocystic odontogenic tumor, marsupialization, supplementary enucleation, acrylic stent obturator

Mandibular Angle fracture: A Rare Complication of Harvesting Autogenous Mandibular Ramus Bone Block

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Background: Reconstruction of bone defects before or at the time of implant placement have been researched for many years and several surgical methods have been suggested. Autogenous bone blocks are preferred by many clinicians for osseous reconstruction of the deficient alveolar ridge because of the biologic qualities, the mechanical properties, and the autogenous nature of these grafts [1]. Typical intraoral donor sites are the ascending ramus, the chin area, body of the mandible, coronoid process and edentulous ridge segments [2]. Many researchers have concluded that the ramus region have some advantages like; easy to access, controlled manipulation, more cortical bone than other donor sites.

Case report: A 61-year-old man was referred to the Oral and Maxillofacial Surgery Department of Kirikkale University for rehabilitation of his edentulous anterior maxilla and posterior mandibula with an implant supported fixed porcelain prosthesis. During completing osteotomies with the chisel nondisplaced mandibular angle fracture was occurred at the level of the mesial vertical osteotomy. The mandibular ramus bone harvesting was stopped and immediately maxillomandibular fixation (MMF) with wires was applied.

Conclusion: Prevention of that kind of complication requires, careful patient and area selection. Also, density and the width of the ramus must be diagnosed with tomographic data before the surgery.

Keywords : bone harvesting, ramus, mandible fracture

Short-term Danazol Prophylaxis of Hereditary Angioedema for Dental Implant Treatment: Case Report

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Hereditary angio edema (HAE) is a rare autosomal dominant disorder resulting from the congenital deficiency of functional C1 esterase inhibitor protein. HAE is manifested by attacks of swelling of the extremities, face, trunk, airway, or abdominal viscera, occurring spontaneously or secondary to trauma. The clinical diagnosis can be confirmed by the findings of low levels of C4 or C1 esterase inhibitor activity, or both. Therapy may be divided into three phases: long-term prophylaxis of attacks, short-term prophylaxis of attacks, and treatment of acute attacks. Long-term prophylaxis may be achieved with antifibrinolytic agents and androgens. Short-term prophylaxis with these agents and plasma transfusions has been successful. For dental procedures, preoperative prophylaxis has been performed with attenuated androgens, fresh frozen plasma (FFP), C1 esterase inhibitor protein concentrate and antifibrinolytics. . Dental treatment of unmedicated patients with HAE can trigger life-threatening pharyngeal edema. Mortality has been reported as high as 30%. Previously, it was demonstrated that the administration of FFP before dental surgery, prevented angioedema.

The aim of this case report was to present a dental implant treatment of patient with HAE and prevention the angioedema by administration of short-term danazol. 38 year old female patient, who was diagnosed as HAE and had acute attacks in every 15 days, was referred to clinic for dental implant treatment. Preoperative dose of danazol 100mg for 3 days was prescribed to patient. Dental implant (Straumann Roxolid Implants) to upper first right molar area was placed with an administration of danazol (200mg/ operation day) and 2 days postoperatively (100mg/d). The patient did not have any acute or postoperative attack according to dental implant placement.

As a conclusion, before undergoing dental surgery, patients with a history of recurrent angioedema should be evaluated for functional C1 esterase inhibitor protein deficiency. If it is present, they are at risk of developing life-threatening laryngeal edema. Prophylaxis of HAE may prevent the attacks and as important as acute attack therapy in HAE. Instead of FFP, short term prophylactic danazol may be useful for minor dental surgery such as one implant placement for patients with HAE. Good supportive care and knowledge of the course of the disease can prevent mortality.

Keywords : hereditary angio edema, danazol, c1 esterase inhibitor protein deficiency

Spontaneous healing of a non-continuity defect of stage 3 Bronj mandible

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Background: Bisphosphonates (BSPs) are used for the treatment of osteoporosis and metastatic bone diseases. Bisphosphonate-related osteonecrosis of the jaw (BRONJ) is a serious oral complication of supportive cancer therapy. Spontaneous or surgical therapy related bone fractures could be seen at cases of bisphosphonate-related osteonecrosis of the jaw (BRONJ). Stage III bisphosphonate-related osteonecrosis of the jaw (BRONJ) therapy is still controversial. When the development of ONJ is refractory to conventional treatment modalities, surgical management could be suggested. The aim of this study was to evaluate the results of the surgical treatment of BRONJ in a case.

Patient and methods: A 72 year-old man was referred to our department for pain at left mandibular region occurred after tooth extraction. He was treated with nitrogen-containing intravenous bisphosphonate (Zometa, Novartis, East Hanover, NJ) therapy for prostate cancer at his medical history. He had been on Zolenat 4 mg IV nine times at first year of therapy. The therapy included two times Zolenat 4 mg IV at second year.

Results: The patient was treated with combined antibiotic therapy and antibacterial mouth rinse with chlorhexidine were implemented to supply oral hygiene. The patient was successfully treated by segmental resection of the extensive necrotic bone and a pathological fracture in the mandible. Two years later, spontaneous bone healing was seen at the resected area of mandible.

Conclusion: Surgical treatment options for BRONJ are still under debate, and no evidence-based guidelines are available.

Keywords : bronj, spontaneous healing, pathologic fracture

Accidentally invasion of a calcium-hydroxide into the maxillary sinus cavity during root-canal treatment: a case report

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A 10-year-old female patient with no systemical disease presented to the our clinic . His complaining was a gradually increasing swelling in the left side of her maxilla, during last one week. After clinical examination, the radiologic and computerized tomographic scan examinations revealed the presence of a radiopaque foreign material in contact with the apex of tooth 26, confined within the limits of a radiolucent area. On dental anamnesis and after communication with her pedodontist, it was concluded that calcium hydroxide was deliberately extruded for the healing of the large lesion last month. But a perforation of the sinus floor of the maxillary sinus occurred with extrusion of a calcium hydroxide paste during routine root canal treatment of a maxillary first molar.

The patient was scheduled for maxillary sinus surgery. The histopathologic features of the lesion revealed the presence of a periapical cyst and the absence of foreign body giant cells. After an observation period of 3 months healing was uneventful.

Keywords : calcium-hydroxide invasion maxillary sinus

GLANDULAR ODONTOGENIC CYST OF MAXILLA : A CASE REPORT

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The glandular odontogenic cyst (GOC) described as a distinct entity by Gardner et al. in 1988 is a rare developmental odontogenic epithelial cyst. The cyst occurs more commonly in the middle age people and has a tendency to recur. The common radiographic features include a well-defined radiolucency with distinct borders, presenting an unilocular or multilocular appearance. For certain diagnosis of GOC, histopathological examination is necessary. Because of recurrence potential of the GOC, complete surgical removal and post-operative clinical and radiological follow-up is very important. In this presentation, we describe a rare case of GOC arising in the posterior region of the maxilla in a 56-year-old male and also present the clinical, radiological and histopathological features of glandular odontogenic cyst.

Keywords : glandular odontogenic cyst , sialo-odontogenic cyst , odontogenic cysts, mucous cell

Application of ozne therapy in treatment of noma: a case report

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Introduction: Cancrum oris (noma) is a devastating moist gangrene of the oral cavity and para-oral region, which is usually destroying both hard and soft tissues. Noma usually might found in pediatric population with a mean age of 2-16 with no sex predilection. It has specific epidemiology in the region of sub-Saharan Africa and main predisposing factors are poor oral and personal hygiene, starvation, infection diseases and poor overall health condition. The bacteriology of noma is still unclear, however it is believed that *Fusobacterium necrophorum* and *Prevotella intermedia* are thought to be key players in the process and interact with one or more other bacterial organisms (such as *Borrelia vincentii*, *Porphyromonas gingivalis*, *Tannerella forsythia*, *Treponema denticola*, *Staphylococcus aureus*, and nonhemolytic *Streptococcus* spp). The therapy of noma usually includes wide spectrum systemic antibiotic therapy with further soft and hard tissues reconstruction of affected sites. This case is demonstrating effect of combination of routine antibiotic and ozone therapy.

Case report: 4 y.o. male was admitted to our hospital with symptoms of moist necrosis of upper lip R-side, right nasal ala, and anterior portions of buccal region. Upon clinical and lab findings noma diagnosis was established. A systemic antibacterial therapy was started immediately and includes combination of: **Ceftazidime (3rd generation cephalosporine)**, Amikacinum and Vancomycinum. Additionally the local application of ozone containing sodium saline 0,9% and UV therapy were used. 3 weeks later self-limitation of the process was noted and patient referred to plastic surgeon for the further lip and nose reconstruction.

Conclusion: this particular clinical case is showing effect of routine antibiotic therapy with combination of local application of ozone and UV therapy. We believe that this combination might significantly reduce devastating effect of noma and increase rehabilitation rates of the patient.

Keywords : ozone and ultraviolet therapy ,noma,

Cancellation of fistula in case of post traumatic salivary gland injury by surgical method.Case report:

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A parotid fistula is a communication between the skin and a salivary duct or gland, through which saliva is discharged. Fistulas of the parotid gland are uncommon and result from either ductal or parenchymal injury. Most frequent aetiologies of parotid fistulae are postoperative complication after parotid gland surgery and accidental trauma. Early detection of injury and prompt treatment are important since fistulas may cause discomfort as well as wound dehiscence and infection. Although there is consensus in the literature that acute parotid injury must be explored primarily and all injured structures should be repaired accurately. Treatment of chronic parotid fistulae is controversial. Numerous methods of treatment ranging from conservative to aggressive have been described with varying success and morbidity. Management options include pressure dressings and use of antisialagogue, total parotidectomy, tympanic neurectomy, intraoral transposition of parotid duct, radiation therapy, use of botulinum toxin A, and use of fibrin glue. In this paper we treated a patient of posttraumatic parotid fistula using simple but effective method of surgery.

Case report:

25 years old patient was admitted in our clinic with secretion of saliva on facial skin surface and the first clinical diagnose was post traumatic fistula formation. patient anamnesis showed that he got injured on his salivary gland region by sharp instrument 3 months before and fistula was formed 1 month before. Figure 1

Operation was done under general anesthesia. First fistula way was determine. Figure 2.

through Stensen's duct make relation with salivary gland parenchyma. For keeping this connection safe a catheter was used as bridge. Figure 3

fistula was removed and parotid capsule was sutured. Wound was sutured in layers. Atropine was given for 3 days post operation. 3 day compressing dressing on wound. After 5 days oral catheter was removed and repeated sialography didn't show any pathology of salivary gland.

Conclusion;In case of post traumatic parotid gland fistula formation,plastic surgery and therapeutic ways together is recommended to prevent secondary fistula formation and help to normalize activity of gland

Keywords : salivary gland,fistula,catheter

Treatment of an excessive traumatic injury of the mandible

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This following case report describes the open reduction, internal fixation and the reconstruction of an excessive comminuted mandibular fracture with right symphysis and parasymphysis region and left angle region. 16 years old female patient with psychological disorders suffered from fall trauma, resulting shattered bony fragments of the alveolus and the mandibula body, the fracture of an angle and dislocation in mandible. The patient underwent open reduction and internal fixation between symphysis and right mandible body using a reconstruction plate and miniplates and screws for fixation of the shattered fragments and the left mandible angle.

Keywords : fracture, comminuted, mandibular fractures, excessive fracture, fixation, trauma

SEVERE MAXILLARY ATROPHY SOLUTIONS WITH ZYGOMATIC IMPLANT

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Zygoma implant is preferable for patients who have inadequate bone height and width even for Standard implant in atrophied maxilla. Zygomatic implants help to avoid grafting procedures and two stage surgical procedures as well. *The first zygoma implant was applied on patients who had hemimaxillectomy due to cancer by Branemark and colleagues in 1988. This method found to be an economical treatment approach to treat the patients more easily, to reduce the treatment time and morbidity and to avoid the grafting procedures in patients with severe atrophic maxilla. Zygomatic implants help to correct facial deformities, aesthetic problems can be eliminated and also patients gain chewing, swallowing, speech functions. In this presentation two case reports which zygoma implant were applied. The indications and contraindications for zygoma implants, the current treatment approaches of zygoma implant surgery and implant success criteria are also described in the light of literature.*

Keywords : atrophy, implant, maxilla, zygoma

Treatment of an excessive traumatic injury of the mandible

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This case report describes the open reduction, internal fixation and the reconstruction of an excessive comminuted mandibular fracture which was seen at right symphysis and parasymphysis region and left angle region. 16 years old female patient having psychological disorders suffered from fall trauma, resulting shattered bony fragments of the alveolus and the mandibula body, the fracture of an angle and dislocation in mandible. The patient underwent open reduction and internal fixation between symphysis and right mandible body using a reconstruction plate and miniplates and screws for fixation of the shattered fragments and the left mandible angle.

Keywords : fracture, comminuted, mandibular fractures, excessive fracture, fixation, trauma

Surgical Management of a Giant Epulis Fissuratum by Nd-Yag Laser: A Case Report

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Epulis fissuratum is a reactive tissue response which occurs due to excessive mechanical pressure of faulty dental prosthesis. A large epulis, like presented in our case, can cause pain, discomfort and bleeding during functions, like eating and speaking, and also can cause cosmetic problems. In this paper, a huge epulis fissuratum on maxillary labial sulcus and its surgical removal using Nd-Yag laser is presented.

Keywords : epulis fissuratum, nd-yag laser, fibrous hyperplasia

Publication Number : PP - 284

Abstract Referance : 456

Oral Fibrolipoma: A Case Report

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Lipomas are benign soft tissue mesenchymal neoplasms and very common benign tumors of adipose tissue. Oral fibrolipomas are uncommon histological variants of the classic lipomas. Clinically oral fibrolipomas mostly affect the buccal mucosa. Etiology of fibrolipoma is typically chronic trauma. Large fibrolipomas, like presented in our case, are seen rarely in oral cavity because of slow progression pattern of the tumor. In this case report we present a 45 year's old male patient with a large fibrolipoma on his buccal gingiva and its surgical management.

Keywords : fibrolipoma, buccal mucosa, surgical excision

Treatment of Temporomandibular Joint Ankylosis by Gap Arthroplasty; Case series and Review of the Literature

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Objectives; The aim of this retrospective study was to evaluate the effectiveness of gap arthroplasty procedure for treating patients with TMJ ankylosis.

Material and Methods; A total of seven patients with unilateral TMJ ankylosis were admitted to the department of Oral and Maxillofacial Surgery Clinic in 2014. Study consisted of 6 female and 1 male patients, treated by gap arthroplasty with or without coronoidotomy (unilaterally or bilaterally). The improvement in mouth opening was measured after gap arthroplasty, after ipsilateral coronoidotomy, and after contralateral coronoidotomy. Outcome variables were maximum mouth opening, deviation on opening, lateral and protrusive movements and facial nerve dysfunction. Other perioperative complications were recorded.

Results; Mean age of patients were 19 years. Mean preoperative maximal incisal opening was 13,5 mm, immediate postoperatively maximal incisal opening was 37 mm. Six of seven patient's intraoperative postoperative values were maintained at 7- months follow-up period. At one patient recurrence was observed from 37mm to 30mm at the 2nd month. This case was the only one without coronoidotomy, and following unilateral coronoidotomy at the 2nd month the original intraoperative mouth opening (37mm) was maintained. Temporary temporal facial nerve paraesthesia occurred in one patient which disappeared totally three months after the operation.

Conclusion: Although GAP arthroplasty is a classic method when compared with new ones as TMJ prosthesis, it has a comparable result with acceptable intraoperative and postoperative outcomes. As long term results of TMJ prosthesis is unknown especially in young ages (as the subject of this presentation), gap arthroplasty should be considered as a classic TMJ ankylosis treatment. Gap arthroplasty show an effective methods for management of TMJ ankylosis with sufficient mouth opening, low recurrence rate and no long term facial nerve complication.

Keywords : gap arthroplasty, tmj, ankylosis

Evaluation of the Effect of Ankaferd on Dental Pulp Derived Mesenchymal Stem Cells and Gingival Fibroblasts

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Objective: Ankaferd Blood Stopper (ABS) which is a plant extract that has been introduced for bleeding control in many clinical sciences. In dental field, clinical studies reported the administration of ABS solution topically after bleeding such as dental extractions, periodontal surgery and pulp bleeding. *In vitro* cytotoxic screening should be carried out in selected human cells before clinical usage. Moreover, the cells in oral tissues may have some different biological properties and need to further evaluation. The aim of this study was to evaluate the viability and apoptosis of cultured dental pulp derived mesenchymal stem cells (DP-MSC) and gingival fibroblasts when treated with ABS.

Materials and Methods: DP-MSCs and gingival fibroblasts were isolated from a healthy, 21 year old male donor. Primary antibodies against CD44, CD90, CD105, CD34, CD 45, HLA-DR and CD73 were analyzed using a flow cytometry system. The cells in both groups (DP-MSCs; gingival fibroblasts) were treated with 2 different dilutions of ABS (1:1, 1:2) were seeded into 6-well plates at 3×10^4 /well in triplicates. Cells without treatment served as a control group. The number of viable cells was determined by using an automatized counting system (Muse Cell Analyzer) in 24h, 48 h and 7th day. Early apoptosis, late apoptosis and total apoptosis were determined by Annexin V & Death Kit after 24h, 48 h and 7th day intervals. Comparisons between groups were analyzed statistically and mean difference was significant at the $p < 0.05$ level.

Results: DP-MSCs were positive for MSC surface markers CD90, CD105, CD 44, CD73 and negative for CD34, CD 45 and HLA-DR. Viability was statistically significant and higher in both DP-MSCs and gingival fibroblasts at 24h and 48h. However, there were no significant differences observed at 7th day between control and both dilutions of DP-MSCs group and also, control and 1:2 dilutions of fibroblast group. The early apoptosis of gingival fibroblasts and DP-MSCs were statistically significant and lower in 1:1 and 1:2 dilutions of ABS than control after 24h, 48h and 7th day. Early apoptosis was lower in 1:1 dilution of ABS in fibroblast cells although 1:2 dilution of ABS in DP-MSCs at 24h. Late

and total apoptosis were found lower and significant in ABS applied groups both in DP-MSCs and gingival fibroblasts than control.

Conclusion: It is the first report which was evaluated the effect of ABS on DP-MSCs in the literature. ABS prevents the early apoptosis and late apoptosis in 24h, 48h and 7th day of cultured both DP-MSCs and gingival fibroblasts. Cell viability may be prevented by using ABS. This hemostatic agent may be used safely in oral surgery procedures.

Keywords : hemostatic agent, ankaferd blood stopper, dental pulp derived mesenchymal stem cell, gingival fibroblast