"4th AÇBİD International Oral & Maxillofacial Surgery Society Congress"

May 26-30, 2010
Antalya, Turkey

ABSTRACT BOOK
"4th AÇBİD International Oral & Maxillofacial Surgery Society Congress"

May 26-30, 2010
Antalya, Turkey

www.acbid2010.org
Dear Colleagues,

It is my pleasure to welcome you to The 4th International ACBID Congress full of scientific and social activities.

The host hotel Gloria Golf Resort which is the most distinguished hotels in Antalya-a tourism town-will ensure quality to our congress in all aspects.

I believe that high scientific level of topics will be shared and discussed with the contribution of the competent international speakers, visual and poster presentations of instructors and assistants.

Best wishes on behalf of organization committee and executive board.

Kindest Regards,

Prof. Dr. Hakki TANYERİ
President of The Congress

Dear Colleagues,

We organized the 4th ACBID International Congress in Antalya 26&30 May 2010. Gloria Golf Hotel will be hosting the scientific tradition of ACBID this time.

International colleagues who are experts in their fields will contribute to our congress where specific topics of our branch for instance orthognatic surgery, trauma, cleft lip and palate, mouth disease, implant surgery etc. will be discussed.

Dear colleagues, I would like to welcome you all to experience the scientific programme in a beautiful environment with ACBID’s hospitality on behalf of the board of directors.

Congratulations and best wishes on a successful event.

Sincerely,

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SCIENTIFIC PROGRAMME

Wednesday, 26 May, 2010

09:30 – 18:00 Registration
13:00 – 14:30 C1 Surgical Clinic - Ultrasonic Piezo-surgery Part 1
14:30 – 14:45 Coffee break
14:45 – 16:00 C1 Surgical Clinic - Ultrasonic Piezo-surgery Part 2

Thursday, 27 May, 2010

09:00 – 10:30 OA1 Oral Abstract Session 1

OP-01 EFFECTS OF DIFFERENT FRACTURE PATTERNS ON THE FIXATION STABILITY OF TITANIUM PLATES AND SCREWS
Zafer Özgür PEKTAŞ, Burak BAYRAM, Sina UÇKAN, Cenk BALÇIK

OP-02 BONE MOLDING IN MANDIBULAR DISTRACTION
Altan VAROL, Selçuk BASA

OP-03 A SIMPLE TECHNIQUE FOR INCREASING THE AMOUNT OF DISTRACTION: A TECHNICAL NOTE
Görkem MÜFTÜOĞLU, Kağan DENİZ, Burçak KAYA, Sina UÇKAN

OP-04 MARSUPIALIZATION OF THE LARGE CYSTIC LESIONS OF THE JAWS
Alper TAŞKALDIRAN, Yunus Emre ALP, Fatma ŞENSES, Fethi ATIL, İsmail Doruk KOÇYİĞİT, Umut TEKİN, Hakan H. TÜZ

OP-05 EVALUATION OF RANK-RANKL LEVELS AFTER CHRONIC BISPHOSPHONATE APPLICATION IN RAT
Mustafa ÇANKAYA, Figen ÇİZMECİ ŞENEL, Alper PAMPÜ, Nuray Yılmaz ALTINTAŞ, Mine KADIOĞLU DUMAN, Efnan MUCİ, Ahmet Alver

OP-06 RADIOLOGIC FINDINGS OF BISPHOSPHONATE-RELATED OSTEONECROSIS OF JAWS
Nuray YILMAZ ALTINTAŞ, Fatih TAŞKESEN, Alper PAMPÜ, Ezher Hamza DAYISOYLU, Mustafa ÇANKAYA, Sibel KUL, Gülperi KOÇER, Cem ÜNGÖR

OP-07 MANAGING IATROGENIC TRIGEMINAL NERVE INJURY: A CASE SERIES AND REVIEW OF THE LITERATURE
Zehra YILMAZ, Tara RENTON
OP-08 MANAGEMENT OF ORAFACIAL PAIN AND MASSETER HYPERTROPHY WITH BOTULINUM TOXIN A: A CASE SERIES
Tuba DEVELI, Firdevs VEZİROĞLU, Sina UÇKAN, Kenan ARAZ

10:30 – 10:40 Coffee Break

10:40 – 12:00 P1 - LEON ASSAEL
Maxillofacial Nerve Injuries
- JAMES HUPP
How to Prepare Paper to Get Published
- VITOMIR KONSTANTINOVIĆ
Advantages of 3D Planning in Maxillofacial Implantology
-REHA KISNİSCI
Temporomandibular Joint Ankylosis and Reconstruction with Transport Osteodistraction

12:00 – 13:30 Lunch

13:30 – 14:20 OA2 Oral Abstract Session 2

OP-09 TREATMENT OF LONG-TERM TEMPOROMANDIBULAR JOINT DISLOCATION BY BILATERAL EMINECTOMY AND CHIN CAP
Muhammed Selim YAVUZ, Mehmet Melih ÖMEZLİ, İsmail AKKAŞ

OP-10 ULTRASONIC RESORABLE PIN FIXATION (SONIC WELD) FOR AUGMENTATION EMINOPLASTY IN CHRONIC DISLOCATIONS
Berfin KARATAŞ, Altan VAROL, Ayşegül SİPAHİ, Selçuk BASA

OP-11 COMPARISION OF ANALGESIC EFFECT OF INTRAARTICULAR INJECTION OF TRAMADOL AND MORPHINE ON SYMPTOMATIC PATIENTS WITH PAINFUL TEMPOROMANDIBULAR JOINTS
Ayşegül SİPAHİ, Tülin SATILMIŞ, Selçuk BASA

OP-12 ACCIDENTAL ALCOHOL INJECTION DURING TEMPOROMANDIBULAR JOINT ARTHROCENTESIS
Nilay Er, Osman ETÖZ, Alper ALKAN

14:20 – 14:30 Coffee Break

14:30 – 15:30 P2 - RAJA KUMMOONA
Reconstruction of the Mandible by Metal Prosthesis and Bone Graft
- FOUAD GHAEREED
Orbital and Periorbital Reconstruction
- CHRIS SKOUTERIS
The Use of the Temporalis Muscle Flap for Oral Reconstruction

15:30 – 15:40 Coffee Break
15:40 – 16:40 OA3 Oral Abstract Session 3

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SURGICAL MANAGEMENT OF TRAUMATIC SUPERIOR ORBITAL FISSURE SYNDROME: CASE REPORT  
Ahmed AL-HASHMÍ, Nader HANNA

**OP-14**  
MANAGEMENT OF LATE POSTTRAUMATIC MAXILLOFACIAL INJURY: CASE REPORT  
Fatih Mehmet COŞKUNSES, Özkan ÖZGÜL, Reha Ş. KIŞNIŞCI

**OP-15**  
PECTORALIS MAJOR MYOCUTANEOUS FLAP  
Reza TABRIZI

**OP-16**  
ORBITAL FLOOR RECONSTRUCTION  
Reza TABRIZI

**OP-17**  
TIBIAL BONE GRAFTING TECHNIQUE FOR MAXILLOFACIAL RECONSTRUCTION  
Yunus Emre ALP, Alper TAŞKALDIRAN, Fatma ŞENSES, Fethi ATIL, İsmail Doruk KOÇYİĞİT, Umut TEKİN, Hakan H. TÜZ

Friday, 28 May, 2010

09:00 – 10:30 OA4 Oral Abstract Session 4

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INFLUENCE OF TWO DIFFERENT FLAP DESIGNS ON THE SEQUELAE OF MANDIBULAR THIRD MOLAR SURGERY  
Özgür ERDOĞAN, Ufuk TATLI, Yakup ÜSTÜN, İbrahim DAMLAR

**OP-19**  
MINOR ORAL SURGERY PROCEDURES IN PATIENTS TAKING WARFARIN: A RETROSPECTIVE STUDY AT SULTAN QBAAOS UNIVERSITY HOSPITAL, OMAN.  
Abdulaziz BAKATHIR

**OP-20**  
A NOVEL SURGICAL APPROACH TO BISPHOSPHONATE-INDUCED OSTEONECROSIS OF THE JAWS: A CASE REPORT  
Estra ERSÖZ, Kağan DENİZ, Firdevs VEZİROĞLU

**OP-21**  
CHALLENGES IN BISPHOSPHONATES INDUCED OSTEONECROSIS OF THE JAWS AND THEIR MANAGEMENTS: A CASE SERIES  
Siddika Sinem SOYDAN, Firdevs VEZİROĞLU ŞENEL, Sina UÇKAN, Kenan ARAZ

**OP-22**  
MICROBIOLOGIC COMPARISON OF SILK, POLYESTER [POLY (ETHYLENETERPHTHALATE)], POLYGLYCOLIC ACID, AND POLY(GLYCOLIDE-CO-LACTIDE) SUTURE MATERIALS IN ORAL SURGERY  
Ertaş YALÇIN, Hakan USLU, Mustafa Cemil BÜYÜKKURT, Ertuğrul DAYI
OP-23  BONE LABELING AND FLUORESCENCE-GUIDED BONE RESECTION IN BISPHOSPHONATE INDUCED OSTEONECROSIS OF THE JAWS (BIONJ)
Onur ATALI, Ayşegül SİPAHI, Altan VAROL, Selçuk BASA, Asım DÜMLÜ

OP-24  BISPHOSPHONATE RELATED OSTEONECROSIS OF THE JAWS: CASE SERIES
Burçin ÜNAL, Osman ETÖZ, Erdem KILIÇ, Alper ALKAN

OP-25  EFFECTS OF ZOLEDRONIC ACID ON HEALING OF MANDIBULAR FRACTURES: AN EXPERIMENTAL STUDY IN RABBITS
Ufuk TATLI,Yakup ÜSTÜN, Mehmet KÜRĶÇÜ, Özgür ERDOĞAN, Cihan Cem GÜRBÜZ, Sait POLAT

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10:40 – 12:00  P3
- CRISPİAN SCULLY
Oral Cancer
- JOSEPH KATZ
Oral Infectious Disease of Significant Systemic Importance
- HAMED AL BARGI
Pediatric Orbital Fibrosarcoma
-AYÇA ARMAN ÖZÇİRPIÇİ
Orthodontist and surgeon collaboration for the management of complex cases

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OP-26  THE IMPACT OF ORTHOGNATIC SURGERY ON AIRWAY SURFACE AREA AND VOLUME
Erol KÜÇÜKKELEŞ, Altan VAROL, Ayşegül SİPAHI, Selçuk BASA

OP-27  DOUBLE LIP ASSOCIATED WITH ASCHER’S SYNDROME& ITS SURGICAL CORRECTION: REPORT OF A CASE
Nihat AKBULUT, E.Şebnem KURŞUN, Çağrı BARDAK, Erdal ERDEM

OP-28  HİSTOMORPHOMETRICAL ANALYSIS OF QUALITY OF NEW BONE FORMATION DURING RAPID DISTRACTION OSTEOGENESIS WITH OSTEOFORMIN INJECTION
Ali Alper PAMPÜ, Figen ÇİZMECİ ŞENEL, Ezher Hamza DAYİSOYLU, Ercüment ÖNDER,Doğan DOLANMAZ,Özkan ÖZKAYNAK, Şafak ERSÖZ

OP-29  THE COMPARISON OF ANGULAR AND CURVILINEAR MARGINAL MANDIBULECTOMY ON FORCE DISTRIBUTION WITH THREE DIMENSIONAL FINITE ELEMENT ANALYSIS
Sinan Yasin ERTEM, Sina UÇKAN
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14:30 – 15:30  P4  - MICHEAL MILORO
Neonatal Distraction Osteogenesis
- ARCHIBALD MORRISON
Total TMJ Reconstruction
- AHMED AL-YAMANI
Multidisciplinary Management of Facial Assymetry

15:30 – 15:40  Coffee Break
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OP-30  ORAL CANCER AND STOMAL RECURRENCE
Vassilis PETSINIS, Chirstos SKOUTERIS

OP-31  ALOPECIA AREATA OF DENTAL ORIGIN
Saeed NEZAFATI

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RADIOGRAPHICALLY NORMAL FOLLICULAR
TISSUES IN THIRD MOLAR IMPACTIONS: A
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Majid ABDOLRAHIMI, Mohamadreza SHAHAMFAR,
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Hakki Öğüz KAZANCIOĞLU, Şadiye Merve OĞUT,
Gülistim AK

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Reza TABRIZI

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OF ORTHOGNATHIC SURGERY WITH
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Alev YILMAZ, Seçil ÇEHRELI, Ayça ARMAN-
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OP-37  DIFFERENCES IN EPKER AND FISH SOFT
TISSUE CEPHALOMETRIC ANALYSIS BETWEEN
CONVENTIONAL AND COMPUTERIZED TRACING
METHODS
Burçak KAYA, Sevim Seda ERKEN, F. Serhat ÖZSOY,
Ömür POLAT ÖZSOY

20:00 –  Gala Dinner
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OP-38  THE EVALUATION OF BONE FORMATION WITH MAXILLARY SINUS LIFT WITHOUT GRAFT MATERIAL BY DENTAL TOMOGRAPHY
Figen ÇIZMEÇI ŞENEL, Nuray YILMAZ ALTINTAŞ, Alper PAMPU, Saadettin KAYIPMAZ, Mustafa ÇANKAYA

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Metin Şencimen, Aydin GÜLSES, Gürkan Rasit BAYAR, Çağrı DELİLBAŞI, Ömer GÜNhan, Hasan Ayberk ALTUĞ, Altan VAROL

OP-40  COMPARATIVE STUDY OF THE OSSEOINTEGRATION OF DENTAL IMPLANTS AFTER DIFFERENT BONE AUGMENTATION TECHNIQUES: VASCULARIZED FEMUR FLAP, NON-VASCULARIZED FEMUR GRAFT, MANDIBULAR BONE GRAFT
M. Emre BENLİDAYI, Alexander GAGGL, Heinz BURGER, Christian BRANDNER, Mehmet KÜRKCÜ, Hakkı ÜNLÜGENÇ

OP-41  RETROSPECTIVE ANALYSIS OF DENTAL IMPLANTS IN SINUS LIFTED MAXILLA
Erdem KILIÇ, Umut DEMETOĞLU, Osman ETÖZ, Alper ALKAN

OP-42  SURVIVAL RATES OF THE IMPLANTS INSERTED TO POSTERIOR MAXILLA WITH INTERNAL OR EXTERNAL SINUS LIFT APPROACH
Kağan DENİZ, Yusuf TAMER, Sina UÇKAN, Kenan ARAZ

OP-43  SUBPERIOSTEAL TUNNEL TECHNIQUE AND APPLICATION OF AUTOGENOUS BLOCK GRAFTING
Gökhan GÜÇMEN, Caner ŞAHİN, Yaşar ÖZKAN, Burçin VANLIOĞLU, Yasemin KULAK ÖZKAN

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Nenad TANASKOVIC

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10:40 – 12:00  P5  
- PIET HAERS  
Cleft Osteotomies, Step by Step  
- MOHAMED WARDA  
Cleft Lip Nasal Deformity  
- HOSSEIN MORTAZAVI  
Nose Harmony in Face and Rhinoplasty  
- JOSEPH HELLMAN  
Management of Obstructive Sleep Apnea

12:00 – 13:30  
Lunch

12:00 – 13:30  
Balkan Association of Oral and Maxillofacial Surgeons  
Business Meeting

13:50 – 15:30  
PIET HAERS  
- LEON ASAEL  
- MICHAEL MILORO  
Oral and Maxillofacial Surgery Training and Future  
Directions

15:30 – 15:40  
Coffee Break

15:40 – 17:00  P6  
- NEBOJSA JOVIC  
Reconstruction of Soft and Bony Tissue Defects in Head  
and Neck Region  
- BEHNAM BOHLULI  
An Algorythmic Approach to Tip Plasty  
- FARZIN SARKARAT  
Soft and Hard Tissue Considerationc in Oral and  
Maxillofacial Implantology

Sunday, 30 May, 2010

11:00 – 12:00  
Executive Board Meeting

12:00 –  
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ORAL PRESENTATIONS
EFFECTS OF DIFFERENT FRACTURE PATTERNS ON THE FIXATION STABILITY OF TITANIUM PLATES AND SCREWS

*Zafer Özgür PEKTAŞ, *Burak BAYRAM, *Sina UÇKAN, **Cenk BALÇIK

* Baskent University, School of Dentistry, Department of Oral and Maxillofacial Surgery, Ankara
** Baskent University, Department of Mechanical Engineering, Ankara

Fractures of the mandible comprise 40%-62% of whole maxillofacial fractures. These fractures are classified as processus condylaris, processus coronoideus, mandibular ramus, corpus, symphysis and parasympysis fractures addressing the involved anatomical site. Fractured segments may displace by the effect of trauma or the muscle traction. The severity of this displacement depends on the direction and magnitude of the trauma, direction of the fracture line and the muscle forces affecting on the fragments. The displacing forces of the masticatory muscles determine the pattern of the fracture as favourable or unfavourable. The concept of placing the relatively small, malleable, non-compression plates to the ideal lines of osteosynthesis was first introduced by Michelet and improved by Champy. The stability of the fixation technique is still debatable and many studies were focused on different fixation techniques, designation of fixation materials, application of the miniplate-screw systems in different configurations since then. However, the effects of the favourable and unfavourable patterns of the fracture on the fixation stability was not investigated before. Therefore, the purpose of this study was to determine the effects of different fracture patterns on the fixation stability of titanium plates and screws. For this purpose, the mandibles of 11 healthy sheep that had been fed a natural diet were studied. The mandibles were stripped of their soft tissues and divided at the anterior midline between the central incisors. A standardized favourable fracture pattern was created on the 11 hemimandible while an unfavourable fracture pattern was created on the other 11. Fractures were fixed with 4-hole straight titanium plates and screws. A custom-made biomechanical testing model was adapted to a servohydraulic testing unit (Instron 8874; Instron, Warwick, England) and samples were fixed from the mandibular condyle and incisor regions. Force was applied on the molar region. Each hemimandible was...

Keywords: Favourable fracture, fixation stability, unfavourable fracture.

BONE MOLDING IN MANDIBULAR DISTRACTION

*Altan VAROL, *Selçuk BASA

* Marmara University, School of Dentistry, Department of Oral and Maxillofacial Surgery, Istanbul

Surgeons performing mandibular distraction know the possibility of developing postdistraction anterior open-bite which worsens the outcome of predicted treatment. The latter needs secondary approaches such as secondary orthodontic correction or repeating the osteotomies of the ossified regenerate. Two patients among a serial of four patients will be described to demonstrate the principles of molding fresh distraction regenerate in order to close postdistraction open-bite.

Keywords: Bone molding, distraction osteogenesis, mandible.
**A SIMPLE TECHNIQUE FOR INCREASING THE AMOUNT OF DISTRACTION: A TECHNICAL NOTE**

*Görekem MÜFTÜOĞLU, *Kağan DENİZ, **Burçak KAYA, *Sina UÇKAN

* Baskent University, School of Dentistry, Department of Oral and Maxillofacial Surgery, Ankara
** Baskent University, School of Dentistry, Department of Orthodontics, Ankara

Alveolar Distraction Osteogenesis (ADO) demonstrates various advantages in rehabilitation of alveolar bone defects, resulting from congenital or acquired bone deficiencies. The well known application of this procedure is frequently vertical and rarely horizontal. Sagittal distraction of the alveolus is a recently applied version of crest lengthening. In sagital ADO, sometimes obtaining a desired bone volume is difficult due to the limited lenght of distractors. However, longer distractors usually can not be used easily in the mouth because of their intolerable and unesthetic structures. In this report, a new technique for increasing the amount of distraction by disactivating and then reactivating the distraction device is described.

**Keywords**: Alveolar distraction osteogenesis, distractor, limit, sagital distraction, transport segment distraction.

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**MARSUPIALIZATION OF THE LARGE CYSTIC LESIONS OF THE JAWS**


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Epithelial odontogenic cysts of the jaws less than 3cm in diameter are generally treated by either cystectomy or cystostomy. Larger cysts, both radicular and dentigerous may largely expand so that they become in touch with or press on certain anatomic structures. Decompression of the cyst cavity is proven to permit the shrinkage of these cystic lesions so that a last attempt could easily be done to excise the remaining at the end of procedure without endangering these anatomic structures. Odontogenic keratocyst (OKC) is a term to describe jaw cysts exhibiting keratinization of their epithelial linings. Since it shows neoplastic features such as high recurrence rate, high mitotic count and high epithelial rate the term was renamed as “keratocystic odontogenic tumor” by WHO. Enucleation, resection, and curettage are the treatment methods of KCOT which can lead to damage or loss of adjacent vital tissues. Marsupialization of KCOT is demonstrated as an alternative to reduce the large cystic cavity so that ensure safer surgery after shrinkage of the lesion by means of decompression. In this report, the results of large jaw cysts in patients treated with marsupialization in our clinic were evaluated.

**Keywords**: jaw cyst, marsupialization.
EVALUATION OF RANK-RANKL LEVELS AFTER CHRONIC BISPHOSPHONATE APPLICATION IN RAT

* Mustafa ÇANKAYA, *Figen ÇİZMEÇI ŞENEL, *Alper PAMPÜ, *Nuray YILMAZ ALTINTAŞ, **Mine KADIOĞLU DUMAN, **Efinan MUCİ, ***Ahmet ALVER

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*** Karadeniz Technical University Faculty of Medicine, Department of Biochemistry, Trabzon

Introduction: Bisphosphonates are a group of medications that are effective in inhibiting bone resorption. Bisphosphonates are known to affect expression of receptor activator of nuclear factor B ligand (RANKL), an osteoclast differentiation factor. RANKL, which is expressed by osteoblast precursor cells, binds to its receptor, RANK, which is expressed on osteoclasts and osteoclast precursors. RANKL is necessary for the differentiation and activation of osteoclasts and their fusion into multinucleated cells.

Methods: 30 twelve weeks old Spraque-Dawley rats were used in the study. There were 3 groups included in the study and each groups had 10 rats. Z1; zolendronate group was injected with zolendronate for 10 weeks, C1; control group was injected with saline solution for 10 weeks and C2; control group that was not given any injection. Rats were sacrificed 2 days after the end of drug therapy. The mandible and femur of each rat were evaluated by rat RANKL/RANK elisa kits.

Conclusion: Because of the evidence of adverse clinical effects that these medications have on the maxilla and mandible, investigations continue to be warranted to examine the effects of bisphosphonates on bone at the cellular and molecular level.

Keywords: Bisphosphonate, Elisa, Rankl
RADIOLOGIC FINDINGS OF BISPHOSPHONATE-RELATED
OSTEONECROSIS OF JAWS

*Nuray YILMAZ ALTINTAŞ, *Fatih TAŞKESİSEN *Alper PAMPU, *Ezher
Hamza DAYISOYLU, *Mustafa ÇANKAYA, **Sibel KUL, ***Gülperi KOÇER, ****
Cem ÜNGÖR

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*** Suleyman Demirel University, Faculty of Dentistry, Oral and Maxillofacial
Surgery Department, Isparta
**** Ankara University, Faculty of Dentistry, Department of Oral and Maxillofacial
Surgery, Ankara

Objectives: Biphosphonates are the drugs of alternative in the management of
hypercalcemia in patients with metastatic lesions including osteoporosis, Paget’s
disease, multiple myeloma, bone cancer and cancer-induced hypocalcaemia.
The inhibition of bone resorption caused by osteoclasts decreased function is the
main pharmacological effect of biphosphonates 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 the patient’s life,
osteonecrosis of the jaw is associated with the use of biphosphonates. The objective
of this study is to evaluate the radiologic findings of the biphosphonate-related
osteonecrosis of the jaw.

Material Methods: 20 patients who were treated with biphosphonates for different
neoplastic diseases with exposed bone and purulent discharge in the jaws were
included to the study. Each case was examined by orthopantomograph and
computerized tomography (CT) by radiologist. Also 5 bone scintigraphy findings
were reviewed. All patients underwent a biopsy and the histological diagnoses were
done as osteonecrosis.

Results: Radiological examination of the patient revealed osteolitic lesions
and sclerotic changes in the jaws with or without periostal proliferation. Also
computerized tomography images showed bone sequestration.

Conclusion: Computed tomography imaging can help to determine the limits
of the bone exposed in the oral cavity caused by biphosphonate therapy and
histopathologic examination correlated with CT scan results.

Keywords: Biphosphonate-related osteonecrosis, bone scintigraphy, computerized
tomography.
MANAGING IATROGENIC TRIGEMINAL NERVE INJURY: A CASE SERIES AND REVIEW OF THE LITERATURE

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Options for managing patients with iatrogenic trigeminal nerve injuries remain limited. This study describes the management of 216 patients with post-traumatic iatrogenic lingual nerve injuries (LNI; n = 93) and iatrogenic inferior alveolar nerve injuries (IANI; n = 123). All data was analysed using the SPSS software and Excel. All patients within this cohort were counselled. Medical, surgical or liaison psychiatric assistance (CBT) were not indicated for the largest proportion of patients (51% IANI and 55% LNI patients). Patients who showed significant improvement in their symptoms and who could not be offered any further treatment (6% IANI and 2% LNI patients) were discharged from the hospital. CBT was offered to 8% of patients, while 5% received systemic or topical medication. Only 30 patients (14%) underwent exploratory surgery (15 LNI and 15 IANI) and 8% were informed about surgery but chose not to have the operation. Topical 5% lidocaine patches were prescribed to patients with IANI, most often to use without any other form of management (7%). A small percentage of IANI patients (4%) received a combination of therapies. Speech therapy was recommended to one LNI patient. In conclusion, reassurance and counselling resulted in sufficient improvements in IANI and LNI patients. Despite this reassurance, treating IANI and LNI patients remains a challenge to clinicians. We suggest a more diverse strategy for management of these patients and recommend pragmatic assessment criteria for measurement of treatment success in these patients.

Keywords: Neuropathic pain, surgical nerve repair, trigeminal nerve injury.

MANAGEMENT OF ORAFACIAL PAIN AND MASSETER HYPERTROPHY WITH BOTULINUM TOXIN A: A CASE SERIES


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Botulinum toxin type A (Btx A) has widespread indications in oral and maxillofacial surgery. Btx A is one of the 8 subtypes of a strong biological toxin synthesized by Clostridium Botulinum which is a gram positive, anaerobic, spore forming. Its mechanism of inhibiting acetylcholine release at neuromuscular junctions following local injection is unique. Other dose-dependent anti-neuroinflammatory effects and vascular modulating properties have extended its spectrum of applications. In the presented report management of patients with a complaint of TMJ dislocation, myofacial pain syndrome, trigeminal neuralgia and masseter hypertrophy with Botulinum toxin A injection is described. Pre and post operative symptoms of the patients were evaluated with appropriate method in every individual.

Keywords: Botulinum toxin type A, masseter hypertrophy, orofacial pain.
TREATMENT OF LONG-TERM TEMPOROMANDIBULAR JOINT DISLOCATION BY BILATERAL EMINECTOMY AND CHIN CAP

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Temporomandibular joint (TMJ) dislocation is defined as an excessive forward movement of the condyle beyond the articular eminence resulting in a condition that fixes the joint in the open position preventing any translation. Surgical treatment is often appropriate when dislocation is prolonged or recurrent. In this case report, long term bilateral TMJ dislocation and it’s comprehensive treatment were presented.

Keywords: Eminectomy, open lock, temporomandibular joint, temporomandibular joint dislocation.

ULTRASONIC RESORBABLE PIN FIXATION (SONIC WELD) FOR AUGMENTATION EMINOPLASTY IN CHRONIC DISLOCATIONS


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Chronic recurrent temporomandibular joint (TMJ) dislocation which poses difficulties in patient’s rehabilitation is described as the complete loss of articular relationships, during mouth-wide opening, between the articular fossa of the temporal bone and the condyle-disk complex. Three patients (one of whom bilateral, two of whom unilateral) with mandibular chronic dislocation were studied clinically radiographically and with computer tomography (CT) before and after surgery. This study presents the use of calvarial and mandibular symphysis bone grafts to augment the height of the articular eminence in three patients using biodegradable Osteosynthesis System (Sonic Weld by KL5 Martin Tuttingen, Germany) which is tolerated by the patient successfully and completely absorbed. The results of this study indicate that after 12 months of follow-up, the surgical technique presented, has stable outcomes on the function of the temporomandibular joint after the surgery and no dislocation was observed in three patients.

Keywords: Sonic weld.
COMPARISON OF ANALGESIC EFFECT OF INTRAARTICULAR INJECTION OF TRAMADOL AND MORPHINE ON SYMPTOMATIC PATIENTS WITH PAINFUL TEMPOROMANDIBULAR JOINTS

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Purpose: The aim was to compare the analgesic efficacy of intra-articular (i.a.) injection of morphine or tramadol, on symptomatic patients with painful TMJs.

Material and Methods: This placebo controlled double-blinded study involved 30 patients with complaints of pain and limited mouth opening who did not respond to conservative treatments. The recordings of visual analog scales (VAS) pain intensity scores at maximum mouth opening (MMO) and at jaw rest were made directly before i.a. injection into one TMJ of either 1.0 mg morphine, 50 mg tramadol, or 1 cc saline (placebo) with arthrocentesis. The pain intensity was also recorded at the postoperative follow-up 15, 30 minutes, 1, 2, 3, 8, 12, 24, 36 and 48 hours, 1, 3, 6 months.

Results: The mean VAS scores at MMO decreased from 6.90 ± 1.45 to 2.60 ± 2.50 in placebo group. While in morphine group, the values run down from 7.30 ± 1.64 to 1.20 ± 0.79; in the tramadol group the scores lessened to 1.50 ± 1.78. Especially at first 48 hours, the magnitude of the reduced VAS score was dramatically lower in morphine and tramadol groups than placebo group.

Discussion: Recent studies have suggested that giving opioids into inflamed tissue may cause analgesia. There are successful examples of intra-articular opioid injections following arthroscopic knee surgery. However, there are only a few studies investigating the analgesic effect of opioids on TMJ arthritis. Morphine is the gold standard of the pain therapy. Tramadol is an effective and a reliable pain control drug. The i.a. administration of drugs is important because systemic side-effects are less observed.

Conclusion: Successful pain management was achieved with both intra-articular tramadol and morphine injections. However, further long-term, larger controlled studies are necessary.

Keywords: Analgesia, morphine, temporomandibular joint, tramadol.
OP-12

ACCIDENTAL ALCOHOL INJECTION DURING TEMPOROMANDIBULAR JOINT ARTHROCENTESIS

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We report a case of accidental alcohol injection into the upper joint cavity of the temporomandibular joint (TMJ) during the first lavage of arthrocentesis with 20 cc syringe. After effective lavage of 20 cc pure alcohol, the patient complained about burning sensation on her right half of the face. At the same time, the surgeon noticed the occuring smell of alcohol and arthrocentesis stopped immediately and needles were withdrawn. Clinical examination revealed that she was having a facial paralysis on her right half of the face and her right half of the tongue. For neutralization of the leaving alcohol in the joint cavity the operation continued by pressurizing arthrocentesis with dental surgical motor according to Alkan and Kılıç. 500 cc saline solution was used effectively. After 4 months of paresthesia, normal facial functions are returned.

**Keywords:** Alcohol injection, facial palsy, temporomandibular joint.
OA 3 - ORAL PRESENTATIONS SESSION 3

OP-13

SURGICAL MANAGEMENT OF TRAUMATIC SUPERIOR ORBITAL FISSURE SYNDROME: CASE REPORT

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Traumatic superior orbital fissure syndrome is a rare complication of craniofacial injuries. It is characterized by the dysfunction of cranial nerves entering the orbit through this fissure (nerves III, IV, V, and VI). Clinically the patient will be presented with ptosis; proptosis; ophthalmoplegia; fixed, dilated pupils; anesthesia around the eye and lacrimal hyposecretion. Most of reported cases managed by medical decompression and monitoring with variable unpredictable outcomes. Surgical management rarely described in the literature. We would like to report the outcomes of surgical decompression.

Keywords: Surgical management, traumatic superior orbital fissure syndrome.

OP-14

MANAGEMENT OF LATE POSTTRAUMATIC MAXILLOFACIAL INJURY: CASE REPORT

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Introduction: Trauma is the leading cause of death for people aged 1-44 years and is exceeded only by cancer and atherosclerotic disease in all age groups. Surgical management and reconstruction of late posttraumatic injuries can be difficult because of the scar tissues and non-union bone. Complex facial injuries should be managed by direct exposure, reduction and fixation. Coronal approach is a suitable choice for treatment of complex maxillofacial injuries as compared with endoscopic and intraoral approaches. Preoperative computer-assisted planning and stereolithographic models can be useful to maintain perfect outcome.

Case Report: 25 year old boy was referred to our clinic with a complaint of malocclusion and asymmetry of his left temporal region. He was underwent immediate surgery on his maxillofacial area 2 year ago due to a motorcycle accident without helmet. Radiologic examination and stereolithographic models have done before surgery. Under general anesthesia malocclusion was treated with LeFort I osteotomy and onlay bone graft from iliac crest. Reduction and fixation of zygomatic arch, orbital floor and orbito-frontal fractures were performed with hemicoronal and subciliary approaches. Postoperative period of patient was uneventful.

Discussion: Maxillofacial traumas represent one of the greatest challenges to public health services worldwide, because of their high incidence and significant financial cost. Inadequate immediate treatment opportunities results serious posttraumatic functional and esthetic problems. Treatment of complex maxillofacial fractures should be planned well to avoid unsatisfactory results. To minimize this possibility, the surgeon and patient should be in mutual agreement as to the realistic outcome.

Keywords: Hemicoronal, late, maxillofacial trauma.
PECTORALIS MAJOR MYOCUTANEOUS FLAP

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The pectoralis major myocutaneous flap (PMMF) is an often used adequate method for the immediate reconstruction of wide defects resulting after resection of malignant tumors of the head and neck and avulsion trauma. We used pectoralis major myocutaneous flap in 9 patients. Three patients with malignant lesion were reconstructed with PMMF immediately after resection of tumor. 4 patients had delay reconstruction after tumor removal and PMMF was used to reconstruction after traumatic avulsion in mandible. Minimal follow-up time in each patients was 18 months. Advantages of PMMF are the simple technical aspects, versatility, proximity to the head and neck region and predictably. Disadvantages of PMMF are the typically thickness of the myocutaneous flap, the functional and cosmetic donor defects particularly concerning the female chest and the possibility of hiding the recurrence of the malignant tumor but our experience showed PMMF one of useful flap for reconstruction of maxillofacial defects with minimal complication.

Keywords: Flap, pectoralis, reconstruction.

ORBITAL FLOOR RECONSTRUCTION

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This is a retrospective study and the aim of study, evaluation orbital floor reconstruction with autogeneous bone and alloplasts materials, consist of Medpor, Medpor Titan, Titanium and resorbable plates. We evaluated 101 patients with pure blow-out fracture or concomitant with zygomatic maxillary fracture. We reviewed patients documentation before and after operation and 12 months after reconstruction. Thirteen patients with Medpor, 42 patients with Medpor-Titan, 30 patients with Titanium, 5 patients with calvaria bone geraft, 8 patients with iliac bone geraft and 3 patients with bioresorbable plate were treated. Medpore and MTM with 1.5-2 mm thickness were used. Autogeneous bone graft 3-5 mm thickness was used. Results showed, autogeneous and alloplast materials could be used in orbital floor reconstruction. Autogeneous bone graft had minimal post operation infection and is good choice in major orbital defects. Titanium mesh and MTM with excellent structural support are used in large orbital floor defects. Resorbable plates are good alternative materials in pediatric patients.

Keywords: Alloplast, blow out, bone, orbit.
TIBIAL BONE GRAFTING TECHNIQUE FOR MAXILLOFACIAL RECONSTRUCTION


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Autogenous bone grafting is the gold standard for maxillofacial reconstruction. The harvest of autogenous bone grafts from intraoral sites does not always provide sufficient bone volume and quality. Tibial bone grafting has been demonstrated as an alternative extraoral donor site. In this report 5 cases were presented which proximal tibial bone graft with medial approach is used for reconstruction of intraoral bone defects. Sufficient amount of cancellous bone could have been harvested. Neither major complication nor serious postoperative morbidity were observed. Medial approach for proximal tibia seems to be a useful and safe method for harvesting autogenous cancellous bone graft.

Keywords: Autogenous bone grafting, maxillofacial reconstruction, medial approach, tibial bone grafting.
INFLUENCE OF TWO DIFFERENT FLAP DESIGNS ON THE SEQUELAE OF MANDIBULAR THIRD MOLAR SURGERY

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Objective: The objective of this study was to compare the influence of triangular and envelope flaps on trismus, pain, facial swelling after mandibular third molar surgery. 
Methods: Twenty healthy patients with bilateral, symmetrically impacted mandibular third molars were included in this blinded, prospective, cross-over, randomized study. The patients were operated with envelope flap on one side and triangular flap on the other side. Trismus was determined by measuring maximum interincisal opening and facial swelling was evaluated using a tape measuring method. Pain was determined using visual analogue scale (VAS) and recording the number of pain pills taken.
Results: The facial swelling measurements and VAS scores were less in the envelope flap group compared to the triangular flap group. There was no significant difference between the two flap designs in operation time, maximum interincisal opening and the number of analgesics taken.
Conclusion: Envelope flap causes less facial swelling and reduced VAS scores compared triangular flap. There is no difference in trismus between the two flap designs. Despite the higher VAS scores with triangular flap no additional doses of analgesics were required in triangular flap.

Keywords: Clinical study, flap design, postoperative morbidity, third molar surgery.
MINOR ORAL SURGERY PROCEDURES IN PATIENTS TAKING WARFARIN: A RETROSPECTIVE STUDY AT SULTAN QABOOS UNIVERSITY HOSPITAL, OMAN.

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Minor oral surgery procedures in warfarinised patients carry the risk of post-operative bleeding. This oral presentation describes a retrospective study that was conducted at Sultan Qaboos University Hospital, Oman. Over a 6 years period (2004-2009), a total of 207 warfarinised patients underwent different minor oral surgery procedures under local anaesthesia, without discontinuation of their warfarin therapy. A total of ten patients (4.8%), six who had surgical extractions and four who had simple extractions, bled enough post-operatively to require a return to hospital. All cases of post-operative bleeding were managed conservatively by repacking the bleeding site with haemostatic agent and re-suturing without the need for hospital admission. Based on this study and the published evidence and recommendations, minor oral surgery procedures can be safely conducted in warfarinised patients without interruption of warfarin regimen when the pre-operative INR is ≤ 3.5 and appropriate local haemostatic measures are used.

Keywords: Complications, oral surgery, postoperative haemorrhage, tooth extraction, warfarin.

A NOVEL SURGICAL APPROACH TO BISPHOSPHONATE-INDUCED OSTEONECROSIS OF THE JAWS: A CASE REPORT

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Bisphosphonates are one of the most commonly prescribed drugs in bone-associated diseases. Bisphosphonate-induced osteonecrosis of the jaws (BONJ) is a common side effect of long term bisphosphonate therapy; characterized with the presence of exposed necrotic bone and non-healing oral mucosa. Although, there have been an increasing number of BONJ cases, it is management is still a challenge for clinicians. In this case report, a novel surgical approach to bisphosphonate-induced osteonecrosis of the jaws involving posterior maxilla with buccal flap pad flap is presented and discussed.

Keywords: Bisphosphonates, fad pad, osteonecrosis.
OP-21

CHALLENGES IN BISPHOSPHONATES INDUCED OSTEONECROSIS OF THE JAWS AND THEIR MANAGEMENTS: A CASE SERIES

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Aminobisphosphonates play a major role in the treatment of osteoporotic bony disorders, malignancy-associated hypercalcemia, metastatic bone disease and multiple myeloma. Among aminobisphosphonates, pamidronate and zoledronate have shown the most consistent effects for the treatment of bone metastases in cancer patients. Osteonecrosis of the jaw is an adverse effect of aminobisphosphonate usage especially in cancer patients treated with intravenous pamidronate and zoledronate, and it is also reported with parenteral doses. Explanation of the pathobiology of bisphosphonate-related osteonecrosis of the jaws (BRONJ) has been limited by the availability of human material and the absence of clinical predictability. A more complete understanding of the natural history of BRONJ and factors associated with risk are needed for determination of the ideal treatment approach of BRONJ. The aim of this study is to compare the different treatment approaches of BRONJ with a case series and constitute a detailed description of treatment difficulties, complications and their solutions.

Keywords: Bisphosphonates, BRONJ, osteonecrosis.

OP-22

MICROBIOLOGIC COMPARISON OF SILK, POLYESTER [POLY(ETHYLENETEREPHTHALATE)], POLYGLYCOLIC ACID, AND POLY(GLYCOLIDE-CO-LACTIDE) SUTURE MATERIALS IN ORAL SURGERY

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The aim of this study was comparison of variety of microbial strains colonization on various intraoral suture materials from patients undergoing dental surgery. Suture materials were applied to 60 patients during dentoalveolar surgery. Patients were randomly divided into 4 groups of 15. Four different suture materials were introduced intraorally to suture the lower third molar. Eight days postoperatively, suture materials were removed. Suture samples in tubes containing a sterile saline solution were washed, isolated and differentiated by various techniques. In microbiological examination, 13 aerobic species, 7 anaerobic species, 1 yeast species, and 1 mold species were isolated from the non-absorbable suture materials. Eight aerobic strains, 9 anaerobic strains, 1 yeast strain, and 2 mold strains were isolated from the absorbable suture materials. In light of the data we obtained, we believe that Sentesorb® (Polyglycolic acid) sutures could be preferred in dental surgery. However, this choice should take other features of the suture material into consideration. Colonization of pathogens in sutures requires that the sutures that are potential oral pathogen reservoirs be removed as soon as possible.

Keywords: Adhesion, dental/craniofacial material, microscopy, strain, suture.
BONE LABELING AND FLUORESCENCE-GUIDED BONE RESECTION IN BISPHOSPHONATE INDUCED OSTEONECROSIS OF THE JAWS (BIONJ)


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Purpose: Bisphosphonate induced jaw osteonecrosis (BIONJ) is a difficult situation to treat since prolonged half-time of bisphosphonates and unestimated borders of bony chemonecrosis may complicate surgical salvage negatively. Extension of osteonecrosis in situ is hardly defined intraoperatively which may cause inadequate jaw bone resection, postoperative propagation of infection into the cancellous bone with widely exposed and denuded alveolar processes. To define exact borders of the jaw osteonecrosis and prevent unnecessary bony removal, therapeutic outcome of fluorescence-guided resection (FGR) for BIONJ was evaluated in a case serial of 10 patients.

Materials and methods: 7 female and 3 males, with the mean age of 43 years underwent bony resections for BIONJ. The primary malignant tumors were breast CA (n=5), prostate CA (n=2), multiple myeloma (n=3). All patients were examined under VELscope (LED Dental, White Rock, British Columbia Canada) fluorescence prior any drug uptake. Antibiotic regime of 100 mg doxycycline (2×1 , p.o.) at least for 2 weeks and 500 mg azithromycin (2×1,p.o) for 5 days were prescribed to all patients. Tetracycline-induced fluorescence was used as an intraoperative blue guiding light during bony resection. FGR was done by removing osteonecrotic regions until healthy bone was encountered underneath. Tension-free primary flap closure was done at the end of the operations.

Results: Azithromycin was an effective macrolide against superinfections in BIONJ patients. Patients’ symptoms disappeared after FGR surgeries. Except two patients all flaps healed without major complications.

Conclusions: Bone labeling and fluorescence-guided bone resection (FGR) worked well in cases which osteonecrotic segments were slightly demarcated radiographically. The necrotic / non-fluorescent and viable/fluorescent bones are easily distinguished under blue light illumination which helps to eradicate necrotic bone thus further spread of infection is eliminated. The FGR is an effective method to treat patients with BIONJ.

Keywords: Bisphosphonate, bone labeling, fluorescence-guided bone resection, osteonecrosis of jaws.
BIPHOSPHONATE RELATED OSTEONECROSIS OF THE JAWS: CASE SERIES


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The current definition of jaw osteonecrosis is nonhealing (for 6–8 wk) lesions involving exposed bone in the mandible or maxilla, usually after local trauma. The relationship between chronic bisphosphonate medication and jaw osteonecrosis is well documented. Bisphosphonates are widely used for the management of metastatic cancer, multiple myeloma, for prevention and treatment of osteoporosis, for the treatment of Paget’s disease, and for the management of acute hypercalcemia. The aim of this presentation is to increase the clinician’s awareness bisphosphonate-associated adverse events, giving information about mechanisms of action of bisphosphonates and potential preventive measures for bisphosphonate-related osteonecrosis of the jaw, complications and treatment of osteonecrosis. Twelve patients who admitted to Erciyes University, Faculty of Dentistry, Department of Oral and Maxillofacial Surgery with complaint of painful exposed bone using bisphosphonate medication were included. Osteonecrosis of the jaws were treated with either antibiotics or surgical interventions or combination following ceasing of bisphosphonate regimen with consultation. All treatment results were satisfactory for the patients. The treatment of bisphosphonate-related osteonecrosis of jaw is challenging. For this reason, in order to avoid complications it is mandatory to perform a risk staging in patients who undergo bisphosphonate administration. When pharmacologic treatments with antibiotics and local antiseptics are not able to control the development of bisphosphonate-related osteonecrosis, the clinicians should perform radical surgical treatments such as the resection of the bone involved.

Keywords: Bisphosphonate, osteonecrosis.
EFFECTS OF ZOLEDRONIC ACID ON HEALING OF MANDIBULAR FRACTURES: AN EXPERIMENTAL STUDY IN RABBITS

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Objective: The purpose of this study was to evaluate the effects of systemically administered zoledronic acid (ZA) on mandibular fracture healing in a rabbit model using radiodensitometric, biomechanical, histological, and histomorphometric methods.

Materials and Methods: Thirty-six skeletally mature male New Zealand white rabbits were used. The animals were randomly divided into 2 groups. A mandibular corpus fracture was created experimentally in all animals. While experimental group rabbits were administered intravenous, single dose of 0.1 mg/kg ZA; control group rabbits were administered only saline infusion during operation. All animals were sacrificed on the 21st post-operative day. Digital radiodensitometric analysis, 3-point bending test, and histological and histomorphometric examinations were performed on the harvested hemimandibles. The data was statistically analyzed.

Results: Biomechanical testing data showed that ZA treatment resulted in significant increase of the healed bone strength. This result was supported by radiological, histological, and histomorphometric findings.

Conclusion: Results of this study revealed that systemic administration of ZA accelerates and improves the bone healing of mandibular fractures.

Keywords: Bisphosphonates, fracture, mandible, rabbit, zoledronic acid.
THE IMPACT OF ORTHOGNATIC SURGERY ON AIRWAY SURFACE AREA AND VOLUME


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**Purpose:** The aim of this study is to assess the spatial changes in airway surface area and volume following different types of orthognathic surgeries such as LeFort I maxillary advancements, mandibular setbacks, genioplasties, and combinations of all. **Material and methods:** 9 patients (2 men, 7 women) with dentofacial deformities (such as skeletal class II-III deformities, facial asymmetry and/or apertognathies) underwent LeFort I, BSSRO, and/or genioplasties. All the patients' lateral cephalograms and 3-D CT images were recorded pre and postoperatively. Using the Mimics software (Materialise, Belgium), the patients' airway surface areas and volumes before and after surgery were calculated and charted for statistical comparison to determine and establish if there's a clinically significant change in the dimensions of the patients' airway. **Results:** The results showed that maxillary advancements when performed with BSSO for setback increased the airway's surface area while decreasing its volume. However, when only BSRRO for setback is performed there's a decrease in volume and the changes in surface area show variability from case to case. In 1 case, the combination of BSRRO for setback and genioplasty caused a significant increase in the volume of airway which caught attention because the rest of the setbacks performed without any maxillary involvement always decreased the airway's volume. **Conclusion:** After the statistical analysis and comparison of the pre and postoperative values of airway surface area and volume of these patients; it was concluded that BSSRO for setbacks when performed solo cause a decrease in the volume and area of the pharyngeal airway, and when performed with genioplasty or maxillary advancement elicit an increase in the volume and surface area of airway.

**Keywords:** Orthognatic surgery.
DOUBLE LIP ASSOCIATED WITH ASCHER’S SYNDROME & ITS SURGICAL CORRECTION: REPORT OF A CASE

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Double lip is a rare oral anomaly that occurs most frequently in the upper lip with acquired or congenital origin. In some of the cases double lip is a component of the Ascher’s syndrome. It is equally prevalent in both genders without predilection. However 7:1 male gender predilection was reported by some authors. Often appears as two masses of hyperplastic tissue on either side of the midline of the lip as an excessive areolar tissue and inflammatory labial mucosa gland hyperplasia of the pars villosa. Orbicularis oris muscle is normal and muscle fibers can not be found in the double lip. Surgical correction is necessary when the excessive tissue interferes with mastication or speech. Also in the case of chronic trauma and unpleasant lip appearance surgery can be considered. The treatment should be accomplished by excision of the mucosa and submucosal tissue, without involvement of the underlying muscle. Special attention has to be paid in the diagnosis of the pathology because it is sometimes confused with other serious illnesses and may be associated with Ascher’s syndrome. This paper is a report of a upper double lip with Ascher’s syndrome and its surgical management in a 57-year-old male patient.

Keywords: Ascher’s syndrome, double lip, lip anomaly, transvers elliptical incision.
HISTOMORPHOMETRICAL ANALYSIS OF QUALITY OF NEW BONE FORMATION DURING RAPID DISTRACTION OSTEONEogenesis WITH OsteOFORMIN INJECTION

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Introduction: Distraction osteogenesis (DO) is a technique in which bone can be lengthened by de novo bone formation as part of the normal healing process that occurs between surgically osteotomized bone segments that undergo gradual, controlled distraction. Recently DO is widely used in oral&maxillofacial deformities. Prolonged distraction and consolidation period may give rise to some other problems i.e. pin tract-soft tissue infection, bone infection, patient discomfort and related social problems. Rate and shortening the consolidation period via rapid mature bone formation are the most emphasized points in DO.

Aim: The aim of this experimental study was to evaluate the effects of osteofrmin, a negatively charged resin, on quality of de novo bone formation during rapid distraction osteogenesis in rabbits.

Material and Methods: The study was performed using 21 New Zealand white rabbits. Animals were randomly divided into 3 groups each consisted of 7 animals. In Group 1 distraction rate was 1 mm / day while in Groups 2 and 3 distraction rate was 2mm / day and 1 mm / day respectively. At the 1st and 7th days of the distraction procedure osteofrmin was locally injected in Groups 1 and 2. In Group 3 Phosphate Buffered Saline (PBS) was locally injected as control group. Distraction was performed on only the left sides of all animals until a gap of 10mm was achieved. On postoperative day 42 the animals were sacrificed and hemi mandibles of all animals were evaluated histomorphometrically.

Conclusion: The results of this study showed that, local injection of osteofrmin improved healing of regenerate during rapid distraction osteogenesis in Rabbits. Thus the distraction rate of 2 mm / day via locally injection of osteofrmin is an applicable method instead of the rate 1 mm/day.

Keywords: Bone healing, distraction osteogenesis, maxillofacial surgery, negatively charged resins, osteofrmin.
THE COMPARISON OF ANGULAR AND CURVILINEAR MARGINAL MANDIBULECTOMY ON FORCE DISTRIBUTION WITH THREE DIMENSIONAL FINITE ELEMENT ANALYSIS

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Purpose: The purpose of this study is to analyse and compare right angled and curved osteotomy design on stress distribution and to determine an osteotomy design which decreases the risk of pathologic fracture.

Materials and Methods: Solid mathematical model of the mandible was created by three dimensional finite element analysis and two different osteotomy was performed on model, right angled and curvilinear osteotomy lines. 150 N incisor force vertically and 250 N molar force to the angulus area obliqually was applied. The effects of osteotomy types to the stress formation and risk of fracture between models were evaluated.

Results: Right angled osteotomy causes much more stress in the postero-inferior quadrant and mainly localized on the horizontal and vertical osteotomy intersection area. On the other hand, the distribution of the stress on curvilinear formed osteotomy shows postero-inferior localization and stress spreads wider area. Furthermore the amount of stress was less than right-angled one.

Conclusion: In this study, curved osteotomy denominated less stress distribution. The shape of osteotomy might be a factor to decrease the risk of postoperative pathologic fracture.

Keywords: Curved osteotomy, marginal mandibulectomy.
OA 6 - ORAL PRESENTATIONS SESSION 6

OP-30

ORAL CANCER AND STOMAL RECURRENCE

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Tumor recurrence at the site of temporary tracheotomy in oral cancer patients is exceedingly rare as opposed to a higher incidence in patients who have undergone total laryngectomy. The pathophysiology of this occurrence is still unclear. Malignant cell implantation is the prevailing theory. In addition, the timing of performing the tracheotomy (at the beginning or at the completion of tumor resection) seems to play a role in the development of stomal recurrence. The purpose of this presentation is to report on the case of a 67-year-old patient with a T4N0M0 squamous cell carcinoma of the tongue who underwent subtotal glossectomy, selective neck dissection-levels I, II, III, and IV, and postoperative radiation therapy. One year following treatment the patient presented with two well-circumscribed lesions, one involving the skin of the right neck and the other located at the site of the healed temporary tracheostomy. These lesions represented metastatic foci of squamous cell carcinoma. The tumors were excised and additional radiation therapy was administered to the tracheotomy site. The patient remained free of recurrence for two years at which point he was lost to follow-up. As far as the timing to perform a temporary tracheotomy is concerned, our tendency is to do it at the beginning of the procedure for tumor resection. This action has been related to the development of stomal recurrence in the ENT literature. A review of pertinent articles revealed only 6 cases of stomal recurrence following treatment of oral and oropharyngeal squamous cell carcinoma. These data will also be presented and discussed.

Keywords: Oral cancer, tracheotomy.

OP-31

ALOPECIA AREATA OF DENTAL ORIGIN

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Localized hair loss is associated with different problems, including inflammatory processes, endocrine disorder, autoimmune diseases, malingering and many other factors. The relationship between Alopecia areata and dental problems has been reported in the literature and may involve different parts of face. The exact mechanism of odontogenic source for facial hair loss has not recognized. In this lecture the different aspects of alopecia areata of dental origin are presented.

Keywords: Alopecia areata, dental infection, hairloss.
PATHOSIS ASSOCIATED WITH RADIOGRAPHICALLY NORMAL FOLLICULAR TISSUES IN THIRD MOLAR IMPACTIONS: A CLINICOPATHOLOGICAL STUDY


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**Background:** The follicular tissue around impacted third molars has a potential to develop pathosis. However, it is generally assumed that the absence of abnormal radiolucency indicates the presence of a normal follicle.

**Aims:** The aim of this study was to investigate abnormalities associated with radiographically normal follicular tissue of third molar impactions.

**Material and methods:** 185 impacted third molars from 170 patients with no sign of abnormal radiolucency (follicular space 3mm) were used for this study. Follicular tissues of relevant teeth were collected. Specimens were fixed in 10% formalin and stained with hematoxylin and eosin to be independently examined by two pathologists. A diagnosis was registered only when the results from both pathologists were in concordance. Clinical details for each patient where registered in WHO standard forms to undergo chi-square statistical analysis.

**Results:** Fifty-three of the specimens had developed pathosis. The incidence of pathosis was higher in the age group 20–30 years, in men compared to women and in mandible compared to maxilla.

**Conclusion:** The finding of this study suggest that radiographic appearance may not be reliable in the diagnosis of pathosis in follicular tissue as a surprisingly high rate of pathosis was found in the absence of any radiographically detectable sign.

**Keywords:** Folicular tissue pathology, impacted third molar.
SUCCESSFULL TREATMENT OF A LARGE ODONTOGENIC KERATOCYST

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Although odontogenic keratocysts are benign they are often locally destructive and tend to recur after conservative surgical treatment. They must therefore be distinguished from other cysts of the jaw. Keratocysts possess outpouchings and microscopic daughter cysts from which recurrences may arise. Histologic examination is essential for diagnosis since the appearances on roentgenograms and at operation usually do not reveal the true nature of the lesion. In this poster we present the successful dental treatment of one patient who have a large odontogenic keratocyst. A 23-year-old female patient referred to Istanbul University, Faculty of Dentistry, Department of Oral Medicine and Oral Surgery with a painless swelling of her right mandible. Radiographic examination showed a large radiolucent lesion from the mandibular right premolar tooth to the right third molar area. She has no paresthesia involving the right lower lip. Extraoral examination revealed mild soft tissue swelling and tenderness in the left masseter region. There was a palpable hard mass at the base of the vestibule in intraoral examination. We extracted right third molar and biopsy was performed. Based on this histopathological and radiographic examination diagnosis of keratocyst was made. The operation was performed under local anaesthesia. After a buccal mucoperiosteal flap had been elevated, the cyst was totally enucleated and the associated teeth were removed. Care was taken to preserve the inferior alveolar nerve. Two years after surgery she had a good healing in her cyst area and any complain about neurologic function. Enucleations with peripheral ostectomy and/or cryosurgery are the most common forms of treatment. Long-term (lifetime) follow-up radiography is imperative. If these lesions are left untreated, they can become quite large and locally destructive.

Keywords: Alveolar nevure, enucleation, odontogenic keratocyst, swelling, third molar.

MULTIDISCIPLINARY APPROACH FOR CHANGING SMILELINE

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Today's smile line is important part of facial aesthetic. Smile line depend on soft and hard tissue relation and harmony. Smile line problems consist of high smile line due to maxillary vertical excess or deficiency, maxillary canthing, lip thickness and vermilion show, lip animation, crowded or unsatisfied tooth shape and position, missing tooth and tooth color. Changing of smile line need multidisciplinary approach and team works. Orthognathic surgery, lip augmentation, dental implant, tooth restoration with laminate, bleaching and orthodontic aligning are options for gain optimal results in improvement of smile line. We present our experience in changing smileline.

Keywords: Aesthetic, lip, smile line, tooth.
COMPARISON OF DENTOFACIAL OUTCOMES OF ORTHOGNATHIC SURGERY WITH CEPHALOMETRIC NORMS


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Introduction and Objectives: Combined orthodontic and orthognathic surgical treatment has become a common treatment modality in severe Class III malocclusions. In most cases, the aims of such procedures are not only to correct the dental malocclusions but also to improve the facial esthetics and to harmonize the facial profile. The objective of this retrospective cephalometric study was to assess the results of surgical-orthodontic therapy and evaluate the dentofacial outcomes comparatively with cephalometric norms.

Subjects and Methods: The sample consisted of 27 Class III patients (20 females, 7 males, aged between 15 years and 39 years 2 months, mean 21 years 10 months) treated consecutively with orthodontic therapy combined with orthognathic surgery using rigid fixation. 17 of them were treated with bimaxillary surgery for maxillary advancement and/or impaction and mandibular setback, 6 with only mandibular setback, 4 with maxillary advancement and 14 of them had an additional reduction genioplasty. Pre-treatment (T1) and post-treatment (T2) lateral cephalometric radiographs were traced with a 0.3 mm soft pencil on frosted acetate by the same author. Skeletal, dental and soft-tissue measurements included in cephalometric analysis of Steiner, Epker and McNamara were used. Treatment changes and differences between pre and post-treatment measurements and cephalometric norm values were evaluated statistically using SPSS Statistical Package.

Results: The findings demonstrated significant improvements in all dental, skeletal and soft tissue parameters in the treatment group. Evaluation of treatment results revealed that, complete normalization of cephalometric soft-tissue variables was not achieved, still showing significant differences compared to cephalometric norms.

Conclusions: Precise and realistic predictions of skeletal and soft tissue profile outcomes during treatment planning are essential to achieve desired facial esthetics particularly in patients presenting severe skeletal discrepancies. Long-term studies are required in order to confirm the stability of the treatment outcomes.

Keywords: Orthognatic surgery.
CHOLESTEROL GRANULOMA OF THE JAWS : REPORT OF TWO CASES


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Cholesterol granuloma (CG) is a histopathologically used term which describes numerous cholesterol clefts that are often surrounded with foreign-body giant cells, foam cells and macrophages filled with hemosiderin. CG is a benign tumour which is commonly seen in the middle ear and temporal bone. CG rarely occurs in paranasal sinuses and mandible CG just about always forms as a result of hemorrhage in a restricted area. There is no clear pathogenesis yet but most authors defend inadequate lymphatic drainage mechanism which cause accumulate the lipid components of erythrocytes membrane in confined space and they become crystals of cholesterol and its esters. CG can be seen in various areas of the body and mainly associated with chronic middle ear diseases and is common in the mastoid antrum and air cells within the temporal bone, it is extremely rare in paranasal sinuses Radiographic features generally show non-specific changes which cannot be differentiated from allergic or inflammatory sinus disease. The histological appearance of tumour is diagnostic for CG. In this article we report two case of CG. First case is about CG in the maxillary sinus. In the second case, CG is related with impacted mandibular third molar. Both patients were treated by surgical removal of tumour. Following successful enucleation of tumour prognosis is good and recurrence is rare. In conclusion, definite diagnosis of cholesterol granuloma is made by histology and surgical removal of tumour is enough for treatment.

Keywords: Cholesterol granuloma, impacted third molar, maxillary sinus.
DIFFERENCES IN EPKER AND FISH SOFT TISSUE CEPHALOMETRIC ANALYSIS BETWEEN CONVENTIONAL AND COMPUTERIZED TRACING METHODS

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Introduction: Cephalometric measurements can be performed using conventional hand-tracing as well as computerized methods. Surgical planning, based on soft tissue analysis is also frequently carried out but the reliability of computerized soft tissue analysis have not been previously evaluated. The aim of this study was to evaluate the accuracy of cephalometric soft tissue measurements of Epker and Fish, using computerized tracing of direct digital radiographs in comparison with hand tracing of digital radiographic printouts.

Materials and Method: Thirty pretreatment cephalometric digital radiographs were traced using the Vistadent OÇ 1.1 computer software program (group 1) and their conventional radiographic printouts were traced manually (group 2) by the same investigator. Epker soft-tissue analysis was carried out using both of the methods. Measurement reproducibility was evaluated by calculating intraclass correlation coefficients, and a paired t-test was used to compare differences in individual measurements between the methods. Differences greater than 0.05 were considered to be statistically significant.

Results: Intraclass correlation coefficients were higher than 0.85 for both of the methods. For most of the measurements, computerized soft tissue analysis of Epker and Fish was significantly different from hand tracing method. (p<0.05)

Conclusion: Conventional hand-tracing and the computerized method of cephalometric tracing was different for Epker and Fish soft tissue analysis. The use of a computerized soft tissue analysis that incorporates mostly linear measurements is not recommended due to differences in locating some landmarks and possible calibration errors.

Keywords: Soft tissue analysis.
OA 7 - ORAL PRESENTATIONS SESSION 1

OP-38

THE EVALUATION OF BONE FORMATION WITH MAXILLARY SINUS LIFT WITHOUT GRAFT MATERIAL BY DENTAL TOMOGRAPHY

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Elevation of the maxillary sinus floor in combination with sinus grafting has been performed for 20 years. Various bone substitutes has been used to reconstruct the maxillary sinus region for dental implant placement. However, in previous study, it was shown that new bone formation had occurred in maxillary sinus after Scheniderian membrane elevation without bone graft material. The aim of this study is to investigate the new bone formation in the maxillary sinus without bone graft material by dental computed tomography.

Material-method: Eight patients who did not have enough bone volume for dental implant treatment in posterior maxilla were included in the study. Preoperative orthopantomographs and dental tomography were taken for every subject to observe the residual bone height. All sinus lift procedures were performed with the lateral window approach. Only the Schniderian membrane was elevated and the implant were inserted in the residual bone penetrating into the sinus cavity. The resorbable membrane was placed to seal the window. The dental tomography was taken postoperative 1 week and 3 months later. Dental tomography scans in 3 months after performing the procedure verified the new bone gain in the maxillary sinus. No implant failure was detected during the control period.

Conclusion: The present case series demonstrated that it is possible to create new bone in maxillary sinus region without any bone graft substitute.
FOCAL OSTEOPOROTIC HEMATOPOIETIC BONE MARROW DEFECT FORMATION AROUND A DENTAL IMPLANT

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Focal osteoporotic bone marrow defects usually appear as asymptomatic radioluencies in the edentulous posterior mandible of middle aged women. The exact causative factor in the majority of focal osteoporotic bone marrow defect is still unknown. The accurate diagnosis of such bony defects could be misdiagnosed with radiological similarity of many intraosseous lesions so that definite diagnosis is possible only with histopathological examination. A focal osteoporotic bone marrow defect that occurred 2 years postoperatively apical to implant is presented with clinical, radiographical and histopathological features. According to the literature scan, this is the first case report of this phenomenon caused by a dental implant.

Keywords: Bone marrow, dental implant, hematopoietic, hemoglobin h.
COMPARATIVE STUDY OF THE OSSEOINTEGRATION OF DENTAL IMPLANTS AFTER DIFFERENT BONE AUGMENTATION TECHNIQUES: VASCULARIZED FEMUR FLAP, NON-VASCULARIZED FEMUR GRAFT, MANDIBULAR BONE GRAFT

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Objectives: The purpose of this study was to evaluate the osseointegration of the dental implants placed into the mandible augmented with different techniques in pigs.

Material and Methods: Four adult domestic pigs were used. Horizontal augmentation of the mandible was performed in animals by using vascularized femur flap (VFF), non-vascularized femur graft (NVFG) and monocortical mandibular block graft (MG). After 5 months of healing 10 dental implants were placed into each augmented site. The pigs were sacrificed after 3 months of healing. Undecalcified sections were prepared for histomorphometric analysis.

Results: Mean bone-implant contact (BIC) values for implants placed into MG, NVFG and VFF were 57.38±11.97%, 76.50±7.88%, 76.53±8.15% respectively. The BIC values of NVFG and VFF group were significantly greater than MG group (p<0.001). On the other hand, there was not statistically significant difference between NVFG group and VFF group (p=0.999).

Discussion: Various donor sites are available to provide vascularized bone flaps for mandibular or maxillary reconstruction. VFF has been used for adequate defect coverage of non-extended alveolar ridge defects as the most suited donor sites. The main advantage of VFF is the low soft tissue component, so that it can be easily and precisely shaped to small defects without any soft tissue excess. Since there was a high regenerative potential in the recipient site no significant differences were seen between the implants placed into the VFF and the NVFG. Different results might be obtained in recipient sites with either poor regenerative potential or long size defects.

Conclusion: NVFG as well as VFF can be considered as a promising method for augmentation of alveolar defects and the placement of the implants. The selection of non-vascularized graft or vascularized flap depends on the condition of the recipient site.

Keywords: Augmentation, femur graft, implant, osseointegration, vascularized femur flap.
RETROSPECTIVE ANALYSIS OF DENTAL IMPLANTS IN SINUS LIFTED MAXILLA


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The edentulous posterior maxilla generally provides a reduced maxillary bone height owing to severe bone resorption and pneumatization of the maxillary sinus. Consequently, dental implant placement in the posterior maxilla can be complicated. Sinus augmentation can be performed to overcome this condition prior to implant placement. We retrospectively evaluated patients who were treated at Erciyes University, Faculty of Dentistry for implant rehabilitation with sinus lifting procedure between 2007 and 2010. Post surgical panoramic radiographs were used to observe the outcome of bone height after maxillary sinus lifting procedure. Additionally, vertical dimensional changes with regard to graft height were evaluated by comparing the residual alveolar bone height of the preoperative maxillary sinus floor with that immediately after the operation and after follow up periods. Also success rate of implants were evaluated according to the implant diameter and type of the implant surgery (one-stage or two-stage surgery).

Keywords: Dental implants, sinus lifting.
SURVIVAL RATES OF THE IMPLANTS INSERTED TO POSTERIOR MAXILLA WITH INTERNAL OR EXTERNAL SINUS LIFT APPROACH


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Background: The amount of bone height in posterior maxilla is often less than ideal implant for placement. This condition can be managed with augmentation of the maxillary sinus floor. There are two surgical techniques to elevate the sinus floor: sinus lift with crestal approach (internal sinus lift) and sinus lift with lateral wall approach (external sinus lift).

Purpose: The aim of this study was to evaluate and compare the survival rates of implants placed in the posterior maxilla with external sinus lift (ESL) or internal sinus lift (ISL).

Patients and Methods: 70 sinus lift with lateral wall approach was performed in 62 patients and 121 implants were inserted to these augmented sinuses in ESL group. 35 implants were inserted to maxilla in 24 patients with sinus lift with crestal approach in ISL group. The grafting material was TCP in ESL group and no grafting was used in ISL group. The follow-up time was 29.8 and 16.8 months for ESL and ISL groups respectively.

Results: No significant complication was observed during the surgery in both groups. One implant failure was observed in ESL group and there was no implant failure in ISL group. All other implants were functioning well without any significant clinical finding. Implant survival was 99.17% in ESL group and 100% in ISL group.

Conclusion: The sinus lift with lateral wall approach and crestal approach were reliable methods for implant insertion in the posterior maxilla. In ISL group, survival rates of implants were relatively high; may be due to the native bone around the implants. However, as follow-up time was shorter and amount of inserted implants were fewer in this group. Further studies with long-term follow-up time are necessary.

Keywords: External approach, internal approach, sinus lift, socket lift, survival.

SUBPERIOSTEAL TUNNEL TECHNIQUE AND APPLICATION OF AUTOGENOUS BLOCK GRAFTING

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Esthetic, function and long term success are most important criteria in implant therapies. Preparing soft and hard tissues previous to implant procedure is necessary to achieve good standards. In advance to implant procedure it is certain that augmentation of the hard tissue is necessary in case of insufficient bone quality. The most ideal and successful results are obtained by autogenous block grafting. The most common complication is exposure of the graft due to lack of soft tissue coverage, opening and infection of the wound edges. Subperiosteal tunnel technique has the advantages against these complications that affect the success of graft application. In this oral presentation we are presenting case series that are augmented with subperiosteal tunnel technique.

Keywords: Autogenous block graft, implant, subperiosteal tunnel technique.
OP-44

GRAFT APPLICATION CRITERIA


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Functional implant-supported oral rehabilitation is increasingly being used as a restoration strategy for fully and partially edentulous patients, whenever sufficient bone volume is available. Due to anatomical limitations additional surgical techniques may be needed in order to establish acceptable treatment results. The need for bone grafting to replace skeletal defects or augment bony reconstruction has become more prevalent recently. There are many bone graft options available for the surgeon each of which has specific biological and mechanical properties. In this oral presentation we present our 3 graft application cases. The first case is a 45-year-old male patient who had his maxillary incisor teeth extracted. Because of the bone loss in the maxilla vestibule easy graft was applied to the patient. 3 months later 4 dental implants were inserted and then the patient rehabilitated with a fixed prosthesis. In the second case easy graft was applied to the 25-year-old male patient who had his incisor teeth extracted. 2 months later a dental implant was inserted and prosthetically treated. The third case is a 34-year-old female patient who applied to our clinic. With clinical and radiological examination the diagnosis was residual cyst. The cyst enucleated in the same session. To fill the cavity cyst area, the augmentation of biospher which is an allogenic biomaterial was done. 15 days after the operation the exposure of the graft was seen. The epithelial tissue in the cavity was sent to the biopsy. The result of the biopsy was inflammatory reaction. After cured completely the area was closed without any graft material. In the twelfth month the area was filled completely with bone and we inserted the ITI (ITPS) implants and the prosthetic application was done. Since 1993 the patient has carried the implants and overstructure successfully.

Keywords: Dental implants, graft.

OP-45

BONE AUGMENTATION RATIONALE AND MATERIALS SELECTION

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Resorption of the edentulous or partially edentulous alveolar ridge or bone loss due to periodontitis or trauma frequently compromises dental implant placement in a prosthetically ideal position. Therefore, augmentation of an insufficient bone volume is often indicated prior to or in conjunction with implant placement to attain predictable long-term functioning and an esthetic treatment outcome. While the extent and pattern of resorption is variable among individuals, there is a progressive loss of ridge contour as a result of physiologic bone remodeling. Over the long term, prosthetic complications, loss of function, and inadequate bone for the placement of dental implants may result. Guided bone regeneration techniques and the use of bone replacement materials have both been shown to enhance socket healing and modify the resorption process. This review describes the process of alveolar bone loss, materials for ridge site grafting, and proposed mechanisms for ridge preservation.

Keywords: Augmentation, bone grafting, bone loss, bone ridge resorption, bone substitute materials.
POSTER PRESENTATIONS
PP SESSION - DEFORMITY

PP-1

SOFT TISSUE OUTCOMES IN HIGH LEFORT SURGERY

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The malar–midfacial contour is responsible for the shape of the lateral segment of the middle third of the face. A flat hypoplastic malar region makes the face appear dull and uninteresting and contributes to a premature-aged look. It is well known that strong cheekbones make the face appear youthful. Aim It has been the objective of the present case assess visible volume changes of the facial soft tissue after high LeFort I osteotomy with advancement and to determine the soft-tissue-to-hard-tissue ratios of advancement. The soft-tissue-to-hard-tissue ratios of soft tissue, and the accommodation vectors were calculated. The results achieved with the high lefort I surgery indicate that modifications of routine surgical procedures in conventional orthognathic surgery can improve esthetic results in patients with midfacial hypoplasia...

Keywords: High lefort i ostetomy, soft tissue outcome.

PP-2

MULTIDISCIPLINARY TREATMENT APPROACH OF ATROPHIC MAXILLARY ANTERIOR SEGMENT IN A YOUNG PATIENT: A CASE REPORT

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Sufficient alveolar bone height, width and soft tissue support are necessary for ideal implant placement, esthetic results, soft tissue support and function. Multidisciplinary evaluation is necessary for determination of the ideal treatment approach. Reconstruction of horizontal and vertical bone deficiencies is required for successful implant treatment in atrophic alveolar bone. If these reconstructions to be performed with correct indication and methods, complication rates are expected to be minimal.

In this case report multidisciplinary treatment procedures consisting of distraction osteogenesis, orthodontics, followed by implant supported fixed prosthesis of a young female patient with an atrophic maxillary partial edentulous segment was described in detailed.

Keywords: Alveolar distraction osteogenesis, atrophic maxilla, soft tissue augmentation.
ORTHOGNATHIC SURGERY IN DENTOFACIAL DEFORMITIES


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Skeletal discrepancy of the jaws which may lead to severe irregularities in the alignment of the teeth influences the chewing and speech functions as well as facial aesthetics. Orthodontic camouflage alone, may be a treatment choice for mild and moderate skeletal malocclusions in patients who are beyond the pubertal growth spurt. However, severe deformities often need to be treated by both orthodontic and surgical interventions to reposition the lower and/or middle face. Obstructed airway, hemorrhagia, neurological sequelae, fracture, relapse, poor bone healing, temporomandibular disorders, infections, and damage to the teeth or periodontium are some of the complications that can be experienced during and after orthognathic surgery. In this report dentofacial deformity cases treated with orthognathic modalities are presented and the complications discussed along with the literature.

**Keywords:** Dentofacial deformities, orthognathic surgery.

PP-4

COMPLICATION REVIEW IN OSTEOTOMIES BEFORE RAPID PALATAL EXPANSION

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**Purpose:** Evaluation of postoperative complications of surgery assisted Rapid Palatal Expansion cases that has been performed in our clinics in years 2009-2010.

**Method:** With this aim, all surgeons performed under general anesthesia and each patient has been corticomed Le Fort I line properly. 31 number of patients has been asked the same questions postoperatively under headlines such as: paresthesia, nasal bleeding, eye dryness or longterm headache.

**Conclusion:** As a result, %32,2 (n:10) of 31 patients suffered nasal bleeding, %41,9 (n:13) suffered from temporary paresthesia, %9,6 (n:3) reported lacrymation, %3,2 (n:1) reported eye dryness and %22,5 (n:7) felt postoperative headache.

Surgically assisted rapid palatal expansion (SARPE) is a useful technique to increase the transverse dimension of the maxilla in skeletally mature individuals. Surgically assisted RME procedures have traditionally been thought to have a low morbidity,3 but this surgery is not free of risks, and it behooves surgeons to be aware of its potential complications.

**Keywords:** Complication, corticotomy, eye dryness, lacrymation.
COMBINED ORTHODONTIC-SURGICAL TREATMENT IN SKELETAL CLASS III CASE

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Case report: The object of treatment in skeletal class III malocclusions is to improve the skeletal imbalance and to improve tooth alignment and establish intercuspal relations by orthodontic means, however, in severe skeletal class III after terminated growth, the effect of treatment by orthodontics only is limited because of abnormal relationships between the jaws. Treatment of skeletal Class III malocclusion in an adult requires dentoalveolar compensation or combined orthodontic and surgical procedures, with the aim to achieve normal occlusion and improve facial esthetics. Both techniques are necessary because orthognathic surgery frequently cannot produce precise alignment of teeth. This case report present orthodontic and surgical correction with Class III skeletal malocclusion. The patient was a 18-year-old male who complained of reversed occlusion with dysfunction of mastication and aesthetic dyscrasia. He had a skeletal Class III malocclusion with a concave facial profile because of combination retractive maxilla and protrusive mandible. Preoperative orthodontic preparation was performed with conventional edgewise appliances. After alignment 0.017-0.025-in stainless steel rectangular archwires were placed in the maxillary and mandibular arches in preparation for surgery. The surgery consisted of anterior repositioning of the maxilla by Le fort 1 osteotomies with impaction and mandibular posterior repositioning by sagittal split ramus osteotomies. The final occlusal relationship was retained with a maxillary Hawley plate and a mandibular canine-to-canine retainer. The patient was satisfied with his teeth, profile, and smile line. The final occlusion showed a Class I canine- molar relationship on both sides. Favorable facial changes and esthetic and healthy occlusion is achieved with combined orthodontic-orthognathic treatment of skeletal Class III malocclusion.

Keywords: Bimaxillar, class III, orthognathic surgery.

TREATMENT OF FACIAL ASYMMETRY BY ORTHOGNATHIC SURGERY: A CASE SERIES

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Purpose: Our goal was to evaluate and present a case series of facial asymmetry patients which were treated by using orthognathic surgery.

Patients and Methods: In 2009, 3 patients underwent orthognathic surgery aiming at the correction of the facial asymmetries. Sagittal split ramus osteotomies, Le-Fort I osteotomies and genioplasties were performed. The facial asymmetries were a result of either congenital defects or trauma. A combination of clinical and radiographic examination findings, photographs and cephalometric analysis' were used to evaluate the treatment outcomes.

Results: All 3 patients were treated successfully via orthognathic surgery. The esthetic outcome was deemed satisfactory by both the patients and the clinicians.

Conclusion: Orthognathic surgery is a succesful treatment option in the correction of the facial asymmetries.

Keywords: Facial asymmetry, orthognathic surgery.
TREATMENT OF A PATIENT WHO HAD CLASS III MALOCCLUSION BY DISTRACTION OSTEOREGENSES

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Introduction: Distraction osteogenesis is the gradual mechanical traction of bone segments at an osteotomy site in order to generate new bone. Distraction osteogenesis has come into use for reconstructing craniofacial structures after Snyder et al. (1973) reported bone lengthening of a canine mandible. Improvement in the results of correction of maxillofacial deformities by orthodontic treatment and orthognathic surgery has been dramatic over the past 30 years. Overall, distraction osteogenesis and orthognathic surgery are not mutually exclusive. Distraction osteogenesis may be particularly useful for elongating the maxilla in severe cases. Aim: The aim of this presentation is to present the treatment of the patient who has Class III molar and skeletal relation, maxillary narrowing and needs extraction of two premolars and Le Fort I osteotomy for the correction of the anomaly by maxillary anterior distraction osteogenesis. It was corrected using an intraoral tooth-borne palatal distractor in the anterior-posterior direction after an alveolar osteotomy.

Material and Methods (Case): 14 years-old male patient had maxillary anterior crowding was referred to Selcuk University, Faculty of Dentistry, Department of the Orthodontics. After clinical evaluation and cephalometric analysis for the treatment of the anomaly, maxillary anterior distraction osteogenesis was planned. Under local anaesthesia, a maxillary anterior segmental osteotomy was performed. A tooth-borne distractor that was individually constructed was placed. Activation began following 7 days latency. The screw was activated 0.25mm 2 times per day at 12 hourly intervals. The duration of the distraction was determined according to the requirements of each case considering the occlusal relationship overjet and spacing. Following the consolidation period of 3 weeks, the distractors were removed and the treatment was continued with orthodontic treatment.

Discussion: The process of bone and soft tissue generation through the application of graduated tension in terms of distraction osteogenesis has already been.

Keywords: Class III malocclusion, distraction osteogenesis.
PIEZOELECTRIC DEVICE FOR SURGICALLY ASSISTED RAPID MAXILLARY EXPANSION: REPORT OF THREE CASES

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Surgically assisted rapid maxillary expansion (SARME) which combines orthodontics and surgery, is a well-established therapy for transverse maxillary hypoplasia in adults after sutural closure or completion of skeletal maturation. The treatment is accomplished by diminishing the bone's resistance to maxillary expansion via the use of osteotomies. Several osteotomy techniques have been considered based on the anatomical regions resistance to expansion of the jaws. Recently, a novel surgical approach using piezoelectric device has been introduced in the field of oral and maxillofacial surgery as a feasible alternative to the conventional tools. The piezoelectric device is essentially an ultrasound machine that has been decreased the risk of damage to surrounding soft tissues and the most critical structures during surgery. The purpose of this study was to report of three cases with transverse maxillary deficiency treated with SARME. A piezoelectric device was used to perform osteotomies. Piezoelectric osteotomy appeared to be useful in SARME due to its precision and safety.

Keywords: Piezosurgery, bone cutting, rapid maxillary expansion, rapid palatal expansion, ultrasound.
EFFECT OF NASOALVEOLAR MOLDING ON UNILATERAL CLEFT LIP-PALATE: CASE REPORT


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Objective: The objective of this study was to evaluate the effects of presurgical nasoalveolar molding therapy (NMT) on nasal and alveolar tissues in patient with unilateral cleft lip-palate.

Methods: The NMT that is suggested by Grayson has been applied to one patient with an age of 21 days, having complete unilateral cleft lip-palate. Before the lip operation, the alveolar segments should be approximated, the cleft width and alar base of the affected side should be reduced, and the nostril area of the cleft side should be increased. Additionally, the columella deviation should be decreased. The registrations have been recorded on subject at the beginning of the treatment and every week before the lip operation. The subject has undergone nasoalveolar molding therapy for 5 months. After the impressions and photographs were taken at all appointment of the palatal and nasolabial regions, the maxillary stone models were obtained. The molding acrylic plate was fabricated on the dental stone model. A retention button was fabricated and positioned anteriorly at an angle of 40° to the plate and secured the molding plate in the mouth with the help of orthodontic elastics and tapes. The nasal stent construction was delayed until the cleft of the alveolus is reduced to about 5mm in width.

The nasoalveolar regions were evaluated using linear measurements between the identified landmarks with the caliper before and after NMT. The decrease of the cleft width, arch length, and alar base width on the cleft side and the deviation of the columella were markedly, in addition to the significant increase of the arch circumference and nostril area on the affected side.

Conclusions: Although techniques continue to evolve over the decades, the basic principles of cleft surgery remain the same. The main principles are to achieve an appropriate philtral size.

Keywords: Cleft lip palate, nasoalveolar molding.
UREMIC LEONTIASIS OSSEA

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Leontiasis ossea is a rare peculiar facial deformity of the maxillofacial bones. This poster presentation describes the clinical case of a 21-years old female patient with a complex medical condition of end-stage chronic renal failure and secondary hyperparathyroidism on renal hemodialysis presenting with a history of gradual enlargement of the facial bones over a period of one year. The facial enlargement primarily involved the maxilla causing a bizarre facial and dental deformity. Based on the clinical examination, radiographic evaluation, histological and blood investigations the facial deformity was confirmed as a rare manifestation of renal osteodystrophy presenting as maxillary hyperplasia and hyperostosis cranialis featuring uremic leontiasis ossea.

CLINICAL ASPECTS OF SURGICALLY ASISSTED RAPID MAXILLARY EXPANSION

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Introduction: Surgically assisted rapid maxillary expansion (SARME) has become a widely used and acceptable means to expand the maxilla in adolescents and adult patients. The method has advantage of bone formation at the maxillary edges of the midline, while they are separated by an external force.

Material and Methods: The subjects were 14 patients (10 females, 4 males, mean age 19.6 ± 2.73 years) whose malocclusions were treated with SARME during 2006-2009. Standard horizontal osteotomy and midpalatal suture separation were performed under local anesthesia, but the pterygoid plates were not separated from the maxilla. The screws were activated 1 mm just after the surgical interventions. After a 7-day latent period, screws were activated two turns per day (0.5 mm/d).

Results: The maxillary retruded arch and dental crowding were corrected successfully. A V-shaped movement of the segments was observed. New bone formation along the distraction site was observed three months after distraction. The postoperative course was uneventful.

Discussion and Conclusions: SARME with pterygomaxillary disjunction provides a reliable procedure for maxillary expansion in patients with skeletal maturity and is the method of choice to correct significant transverse maxillary discrepancies from anterior to posterior regions. Separation of pterygomaxillary suture could potentially result in greater interoperative bleeding.
THE IMPROVEMENT OF FACIAL SOFT TISSUES WITH THE CORRECTION OF OCCLUSAL CANTING

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Severe facial asymmetries in adult patients can be hardly corrected without the improvement of dentoalveolar disharmonies in the vertical direction. Thus, they are preferred to be treated with asymmetric impaction and down fracture surgery. In this report, the orthodontic and surgical treatment of adult patients showing severe facial asymmetries with vertical disharmonies will be presented. The major complaints of these patients were the asymmetric appearances of their faces and their unesthetic smiles. In their clinical examinations, outstanding facial asymmetries with occlusal plane canting were observed. The treatments started with fixed orthodontic appliances. The teeth were aligned, the dental compensations due to the vertical disharmony were corrected. Then, the maxillas were asymmetrically impacted on one side and down fractured on the other side with Le Fort 1 osteotomies to correct the occlusal plane canting. The mandibles were repositioned with sagittal split ramus osteotomy to obtain a proper occlusion. Thus, the vertical asymmetry of the jaws was eliminated. As a result of the orthodontic and surgical treatments, the asymmetries of the facial soft tissues were reduced due to the correction of the hard tissue asymmetries. Moreover, balanced and esthetic smiles were obtained as the canting of the occlusal planes were eliminated.
EFFECTS OF COMBINED BIMAXILLARY AND CHIN SURGERY IN TREATMENT OF SEVERE CLASS III MALOCCLUSIONS: REPORT OF 2 CASES

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Introduction and Objectives: Combined orthodontic and surgical treatment aims to produce more harmonious facial skeletal relationships. Research has shown that most of the patients request surgical-orthodontic treatment because of a desire to improve their facial and dental appearance. The aim of this presentation is to present effects of bimaxillary surgery with maxillary impaction and advancement combined with bilateral sagittal split osteotomy for mandibular setback and genioplasty in two skeletal Class III subjects whose main complaints were their facial appearances.

Subjects and Methods: Case 1: A 22 years 5 months old male patient presented maxillary retraction and severe mandibular protrusion with asymmetry. Presurgical orthodontics involved decompensation of incisor inclinations and orthognathic surgery was performed subsequently. The surgical procedure consisted of maxillary advancement, impaction mandibular set-back and genioplasty. After surgery, orthodontic treatment for finalization was carried out and retention was achieved with Hawley retainers.

Case 2: A 19 year old female patient had maxillary retraction and mandibular protrusion. She was deeply concerned about frontal and profile aspect of her face. After leveling both arches and decompensating the incisors, bimaxillary surgery, consisting of maxillary impaction, advancement, mandibular set-back and genioplasty was performed to achieve a more harmonious jaw relationship.

Results: Intermaxillary sagittal jaw relationship and soft-tissue profile was improved with the combined orthodontic and surgical treatment in both patients.

Conclusion: Bimaxillary surgical treatment contributes to improve facial attractiveness in young adults. Harmonious facial appearances can be achieved by means of combined orthodontic-surgical therapy in severe Class III malocclusions characterized with retrusive nasomaxillary areas and prominent chins.
COMBINED ORTHODONIC-SURGICAL TREATMENT IN SKELETAL CLASS III CASE

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Treatment of skeletal Class III malocclusion in an adult requires dentoalveolar compensation or combined orthodontic and surgical procedures, with the aim to achieve normal occlusion and favorable facial esthetics. Both techniques are necessary because orthognathic surgery frequently cannot produce precise alignment of teeth. This case report presents orthodontic and surgical correction with Class III skeletal malocclusion. The patient was a 19-year-old female who complained of reversed occlusion with dysfunction of mastication and aesthetic dyscrasia. She had a skeletal Class III malocclusion with openbite and concave facial profile because of protrusive mandible. Preoperative orthodontic preparation was performed with conventional edgewise appliances. After alignment 0.017-0.025-in stainless steel rectangular archwires were placed in the maxillary and mandibular arches in preparation for surgery. The surgery consisted of mandibular posterior repositioning by sagittal split ramus osteotomies. The patient was satisfied with her occlusion, profile, and smile line. The final occlusion showed a Class I canine-molar relationship on both sides. Favorable facial changes and esthetic and healthy occlusion is achieved with combined orthodontic-orthognatic treatment of skeletal Class III malocclusion.
TREATMENT OF A SEVERE CLASS III MALOCCLUSION: CASE REPORT

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Introduction: In orthognathic surgery, the aim is to achieve a proper occlusion i.e., the manner in which teeth and molars of the upper and lower jaw fit on each other, and an aesthetically improved facial appearance using orthodontics combined with operative measures.

Case Report: The improvement of aesthetics and function, including the occlusal relationship, needs to be carefully considered in treatment planning for the success of orthognathic surgery. Conventional lateral cephalograms, panoramic radiographs, hand-wrist radiographs and dental study casts have been used usually for the assessment of skeletal morphologic condition and occlusion, respectively, in successful and precise planning procedures. The patient was a 18-year-old male with a severe skeletal Class III malocclusion. The chief complaint was mandibular protrusion and facial aesthetic problems. The patient had a concave profile, with excess vertical height of the lower face. Intraorally he had an Angle Class III molar relationship bilaterally, with a minimal overbite of 1mm and an overjet of -4 mm. Steiner cephalometric analysis showed that; ANB angle is -8°, GoGnSN angle is 32°. McNamara analysis showed that; effective mandibular length increased, mandible was protrusive and maxilla was retrusive in regard to the cranial base.

Treatment progress involved; Fixed orthodontic appliance treatment followed by bi-maxillary orthognathic surgery (maxillary advancement, mandibular set-back), post-op orthodontic treatment for the establishment of a stable occlusion and the cephalometric improve of is presented in table I.

Conclusions: Multidisciplinary approach yielded successful results for the correction of a severe skeletal Class III case. The major treatment objectives were achieved; the skeletal disharmony was corrected and the unesthetic profile was improved successfully by orthodontics and orthognathic surgery.
A CASE WITH LEFT LIP AND PALATE WITH MAXILLARY HYPOPLASIA TREATED WITH RIGID EXTERNAL DISTRACTION

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The importance of the dentition and contribution of the orthodontist to the care of cleft patients from infancy to adulthood are presented. Close communication between orthodontists and surgeons is emphasized. The orthodontic treatment plan is developed around the anatomic, functional, and developmental needs of the patient. It has allowed us to treat patients in all age groups. In this report, the orthodontic treatment combined with rigid external distraction osteogenesis in a 19-year-old girl patient with cleft lip and palate with severe maxillary hypoplasia is described. The girl presented with a reduced maxilla, protruding lower lip, skeletal Class III jaw relationship with a low mandibular plane angle, a short and flattened nose, anterior crossbite. For the patient in the rigid external distraction, the mean effective horizontal advancement of the maxilla was 10 mm. The patient had correction negative overjet.

**Results:** Following treatment, the maxilla was displaced in a forward direction with new bone formation at the tuberosities and the mandible rotated backward in relation to the anterior cranial base. The anterior crossbite was corrected, and the skeletal jaw relationship hanged from a Class III to a Class I skeletal pattern. The soft tissue facial profile showed that the nasal projection had been increased, the nasolabial angle increased, and the lower lip protrusion was reduced. Postoperative treatment results were acceptable.

**Conclusion:** Rigid external distraction in patients with severe maxillary hypoplasia allows full correction of the deformity through treatment of the affected region only. It offers the distinct advantage of correcting these severe deformities through a minimal procedure. Rigid external distraction has dramatically improved our treatment results for patients with severe cleft maxillary hypoplasia.
ORTHODONTIC AND SURGICAL TREATMENT FOR A PATIENT WITH CLASS III MALOCCLUSION

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In patients with orthognathic problems, in whom a combination of surgery and orthodontics is required, it seems to us better to begin orthodontic treatment before surgery and maintained after surgery. In this way possible relapse tendency has petered out. The Class III malocclusion with mandibular prognathism and maxillary retrusion can be a result of excessive mandibular growth, underdevelopment of the maxilla, environmental factors, and trauma to the jaws. Correction of this malocclusion can involve an orthodontic or a combined orthodontic-orthognathic approach. Skeletal asymmetries can complicate this situation, making treatment more difficult. This skeletal Class III case presentation involves treatment with a combined orthodontic-bimaxillary orthognathic approach.

She was 17 years old and skeletal Class III malocclusion with a concave facial profile. At the beginning of the treatment SNA, SNB and GoGnSN angle was 76,5, 81,5, and 34,5 respectively. Crowding was 14 mm in maxilla, 5 mm in mandible. Because of the crowding we planned extraction of upper first premolars. Preoperative orthodontic preparation was performed with conventional edgewise appliances. The surgery consisted of anterior repositioning of the maxilla by Le fort I osteotomies and mandibular posterior repositioning by sagittal split ramus osteotomies. Ideal occlusion and favorable facial profile was obtained at the end of the treatment by combined orthodontic and orthognathic surgery.
THE ANTERIOR REPOSITIONING SPLINT IN THE CONSERVATIVE TREATMENT OF ANTERIOR DISC DISPLACEMENT WITH REDUCTION: A CASE REPORT

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Disc displacement with reduction occurs when the disc is placed anteriorly relative to the condyle and the condyle passes over the thick posterior of the disc at the beginning of mouth opening. Once maximum opening has occurred, the condyle can capture the disc, and normal relationship occurs between the condyle and the disc at this stage. However, in maximum intercuspation, the disc once more becomes situated anterior to the condyle. The anterior repositioning splint is suitable treatment for temporomandibular joint disc displacement with reduction. The aim of this case was to evaluate that the effectiveness of anterior repositioning splint therapy in the treatment of anterior disc displacement with reduction. A 20-year-old patient with anterior open-bite and TMD, characterized by symptoms including pain to palpation, audible and palpable joint sounds and reciprocal clicking. The active opening range was 28 mm. between the upper and lower incisal edges. Patient were treated with an anterior repositioning splint to recapture the disc. After a month, anterior repositioning splint decreased joint pain at rest and during chewing. Maximum opening range was 38 mm. Reciprocal clicking was eliminated and palpatory tenderness of the joint and muscles was reduced. In the treatment of disc displacement with reduction, an anterior repositioning appliance has been used and accepted as a conservative treatment. It has been suggested that no direct correlation exists between the use of such splints and the elimination of the clinical symptoms or the construction of an ideal relationship between the disc and the condyle. After the application of anterior repositioning splint, reduction in the position of an anteriorly located disc was observed. However, in order to determine whether the corrected disc-condyle relationship is stable.

**Keywords**: Disc replacement, splint, temporomandibular joint.

TREATMENT OF LONG-TERM TEMPOROMANDIBULAR JOINT DISLOCATION BY BILATERAL EMINECTOMY AND CHIN CAP

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Temporomandibular joint (TMJ) dislocation is defined as an excessive forward movement of the condyle beyond the articular eminence resulting in a condition that fixes the joint in the open position preventing any translation. Surgical treatment is often appropriate when dislocation is prolonged or recurrent. In this case report, long term bilateral TMJ dislocation and it’s comprehensive treatment were presented.

**Keywords**: Eminectomy, open lock, temporomandibular joint, temporomandibular joint dislocation.
ASSESSMENT OF MAGNETIC RESONANCE IMAGING, BONE SCINTIGRAPHY AND CLINICAL FINDINGS OF PATIENTS WITH TEMPOROMANDIBULAR JOINT INTERNAL DERANGEMENT BEFORE AND AFTER THE SPLINT THERAPY

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Temporomandibular joint (TMJ) internal derangement is described as an abnormal relationship with disk-condyle and glenoid fossa. This illness can cause earache, pain, difficulty in mandibular functions as a subjective symptoms and also can lead limited mouth opening and lateral movements, clicking and deviation as objective symptoms in all patients. In treatments surgical and conservative methods are used to ease the symptoms. The internal derangement of TMJ diagnoses with combination of clinical examination and various imaging methods. Aim: In this study we aimed that compare with MRI and scintigraphy findings of the splint treatment thus we contribute to literature about the efficacy of occlusal splints with quantitative results. Material and Method: Thirty patients with signs and symptoms of TMJ internal derangement were enrolled in this study. All of the patients were treated by occlusal splint for three months. MRI and bone scintigraphy were performed before and after the treatment. For each patient with musculus(m.) temporalis, m.massetericus and TMJ pain were scored on VAS before and after occlusal splint therapy. Occlusal splint therapy was applied for three months. Interincisal distances and lateral movement were measured before and after the splint treatment. Osteoblastic activity counts and MRI of TMJ regions were evaluated before and after the splint therapy. Conclusion: Ideal function (mastication, phonation) and rehabilitation of TMJ provided after the splint treatment in all patient. Increased interincisal distances and decreased level of the muscle pain were proved this situation. On MRI, no changes were detected in patient with disk displacement after occlusal splints. However osteoblastic activity count were decreased after the treatment in all patient so that it was revealed that there was no degenerative changes in TMJ.

Keywords: Bone scintigraphy, internal derangement, occlusal splints, temporomandibular joint.
INTRAORAL CORONOIDOTOMY TREATMENT OF A PATIENT WITH TRISMUS DUE TO RADIOTHERAPY TREATMENT


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Trismus is defined as tonic contraction of the muscles of mastication that can dramatically affect quality of life in a variety of ways. Trismus occurs in head and neck cancer patients as a result of tumors growing in or around the region of masticatory muscles or after radiotherapy treatment. It has been known that trismus occurs after radiotherapy treatment in a ratio of %5-38 (1). Treatment modalities for limited mouth opening include coronoidectomy, coronoidotomy and aggressive physical therapy alone or together. In this case report, intraoral coronoidotomy treatment of a patient with limited mouth opening due to radiotherapy treatment for nasopharynx cancer is presented.

Keywords: Radiotherapy, coronoidotomy, trismus

PSYCHOPATHOLOGICAL SYMPTOMS PROFILE AND DIFFERENT FORMS OF BRUXISM


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Objectives: The aim of the current study was to evaluate the prevalence of psychopathological symptoms in patients who self-reported different forms of bruxism by means of clinical and anamnestic diagnostic criteria.

Methods: 85 (eighty-five) participants were divided into 4 groups as sleep-bruxers (12 patients), awake-bruxers (24 patients), sleep-awake-bruxers (33 patients) and non-bruxers (16 patients). A self-report symptom inventory questionnaire ("Symptom Checklist-90-Revised" SCL-90-R) was filled out by all groups to determine their psychopathological symptoms.

Results: As regards mean psychopathological scores, patients with sleep-awake bruxism endorsed the highest scores. In addition, patients with awake bruxism showed higher scores than patients with sleep bruxism and nonbruxism in most SCL-90_R subscales. Kruskal-Wallis test revealed significant differences between groups in any of the SCL-90_R subscales, except than for the psychoticism subscale (Chi-Square = 6.103; p = 0.017). Mann-Whitney test followed by Bonferroni's test correction between non-bruxer and sleep-awake-bruxer groups revealed significant differences in depression (Z = 3.034; p = 0.002), anxiety (Z = 3.276; p < 0.001), hostility (Z = 3.446; p = 0.001), phobic anxiety (Z = 2.784; p = 0.005), paranoid ideation (Z = 2.878; p = 0.004), global severity index (Z = 3.038; p = 0.002), positive symptom distress index (Z = 3.177; p = 0.001) and positive symptom total (Z = 2.698; p = 0.007) in all SCL-90_R subscales.

Conclusions: Statistical analysis of our study showed that differences between groups were significant in all SCL-90_R subscales except for the psychoticism subscale. In conclusion, better distinction of bruxism forms may help to develop new treatment strategies for bruxism disorder. Future multidisciplinary studies on broader samples should be directed toward standardizing clinical criteria for detecting.

Keywords: Bruxism, etiology, form, psychopathology, symptom check-list (SCL-90-R).
SHORT-TERM EFFECTS OF ARTHROCENTESIS IN THE MANAGEMENT OF TEMPOROMANDIBULAR JOINT CLOSED LOCK


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Objective: The aim of this study was to analyse the short-term clinical outcomes of patients with temporomandibular joint (TMJ) closed lock treated by arthrocentesis. Study design: The study consisted of 26 patients (25 female, 1 male; mean age 31.4) with acute or persistent TMJ closed lock. Clinical data was collected in the form of visual analogue scales for pain, chewing ability and activities of daily (ADL), and measurements of maximum mandibular opening (MMO) before and after the treatment. Pretreatment and post-treatment scores were compared and statistically tested, and the treatment outcome was judged according to our success criteria. Results: At 6-month follow-up, the success rate in all patients was 84.2%; it was higher in acute patients (91.4%) than in chronic patients (69.8%). MMO had increased from a mean of 24.7 ± 5.9 mm to 39.6 ± 6.2 mm (P<0.05). Dysfunction and ADL had significantly improved (P<0.05), and also pain had substantially decreased in all patients as a result of this procedure. Conclusion: The short-term results showed that arthrocentesis is effective to improve signs and symptoms in patients with TMJ closed lock and to maintain them over a 6-month follow-up.

Keywords: TMJ closed lock, arthrocentesis.

OROMADIBULAR DYSTONIA

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Oromadibular dystonia is a rare neurological condition infrequently encountered by oral & maxillofacial surgeons, which may result in involuntary and painful jaw opening, closing, deviation or a combination. This poster presentation describe the clinical case of a 36 years old female diagnosed with SLE and nephritic syndrome presented with severe deviation of mandible with inability to open mouth due to severe spasm of the lateral pterygoid muscle. Diagnosis of focal oromadibular dystonia involving the lateral pterygoid muscle was made and she was treated with botulinum A toxin (Botox) injection in the involved lateral pterygoid and masseter muscles with successful relieve of symptoms.

Keywords: Focal dystonia, botulinum a toxin, oromadibular dystonia.
EVALUATION OF INTRA-ORAL BONE GRAFT DONOR SITES IN TERMS OF BONE MORPHOGENIC PROTEIN-2: AN EX-VIVO STUDY ON SHEEP JAWS.

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Despite some recent advances in bone-substitute technology, autogenous bone grafts remain the "gold standard" because of their osteoinductive, osteoconductive, and nonimmunogenic properties. The most common intraoral autogenous bone graft sites are the mandibular symphysis, ramus and the maxillary tuberosity. Bone morphogenetic proteins (BMPs) that are part of growth factors capable of osteoinductive activity is that the main adventegous of autogenous bone grafts. BMP-2 that is the subgroup of BMPs is the most potent of the osteoinductive factors. The purpose of this ex vivo study was to evaluate the BMP-2 potential of mandibular symphysis, ramus and maxillary tuberosity regions. Intraoral bone block grafts were taken from 10 fresh sheep cadavers and divided into 3 groups as mandibular symphysis, ramus and maxillary tuberosity. The grafts passed from decalcification and routine histological procedures. 5-6 μm thick sections were prepared and than hematoxylin & eosin and BMP-2 immunostaining was done. Negative control group was also formed. Afterwards the findings were compared in respect of bmp2 potentials.

In hematoxylin & eosin sections, large amounts of connective tissue were found in between the bones trabecules. For BMP-2 sections, in the three groups, staining was observed in bone trabecules and intermediate connective tissue. In symphysis group, bmp-2 staining was significantly higher than tuberosity and ramus groups. The mandibular symphysis graft is very useful due to its ease of harvesting and higher membranous content, as well as mandibular ramus. However intra-oral donor site selection is still controversial. According to the results of the present study, mandibular symphysis might be preferred due to its higher bmp-2 potential in addition to its other advantages.

Keywords: Autogenous bone graft, bone morphogenetic protein-2, mandibular symphysis.
ALVEOLAR RIDGE AUGMENTATION BY USING MANDIBULAR RAMUS GRAFT PRIOR TO DENTAL IMPLANT PLACEMENT

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Local bone grafts are a convenient source of autogenous bone in alveolar reconstruction. The mandibular ramus area provides primarily a cortical graft that is well-suited for grafting of ridge deficiencies prior to implant placement. The advantages of this method of augmentation include its intraoral access and low morbidity. Similar to bone harvested from the mandibular symphysis, these grafts require short healing periods, exhibit minimal resorption, and maintain their dense quality. Advantages of this donor site over the chin include minimal patient concern for altered facial contour, proximity to posterior mandible recipient sites, and decreased complaints of postoperative sensory disturbances and discomfort. However, the surgical access in some cases is limited, and there is a potential for damage to the mandibular neurovascular bundle. The objective of this article is to present a case of an alveolar augmentation using mandibular ramus graft prior to dental implant placement and its prosthodontic rehabilitation process.

Keywords: Augmentation, bone grafts, dental implant, mandible, ramus.

PP-27

RECONSTRUCTION OF MANDIBULAR DEFECT BY TRANSPORT DISTRACTION OSTEONEogenesis AND BONE GRAFT

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Introduction: Different techniques can be used on the reconstruction of the jaws. Transport distraction osteogenesis and bone grafts are the most common ones. They can be used on craniofacial reconstruction, neoplastic defects, condyle regeneration, cleft and palate reconstruction.

Aim: The purpose of this case is to present rehabilitation of the tumoral defect using a combination of distraction osteogenesis, bone grafts and dental implants.

Method and Materials: 34 year-old female patient referred to surgery clinic with a complaint of swelling at the left part of the posterior mandible. After radiographic and clinical examination, it was decided to make incisal biopsy. Microscopic examination of specimen revealed “unicystic ameloblastoma”. The lesion enucleated, then mandibular defect reconstructed by distraction osteogenesis and bone grafts.

Four implants placed after augmentation.

Discussion: Reconstruction of the jaw bone with bone grafting, distraction osteogenesis is the treatment option when there is insufficient bone. However morbidity, cost, resorption, time required for augmentation should have considered during reconstruction.

Conclusion: The combination of horizontal transport distraction osteogenesis onlay bone grafting and implant placement have been able to reconstruct jaws with severe defects.

Keywords: Distraction osteogenesis, mandibular defect, reconstruction.
PP SESSION - IMPLANTOLOGY

PP-28

EVALUATION OF CLINICAL OUTCOME OF SPLIT CREST OSTEOTOMY IN COMBINATION WITH IMMEDIATE IMPLANT PLACEMENT

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Atrophic bony ridges present a unique challenge to the dental implant surgeon. In the past, onlay grafts of bone harvested from the hip, maxillary tuberosity, symphysis of the chin, or external oblique ridge have all been used with success in reconstruction of atrophic ridges. However, onlay bone grafting procedures require a secondary surgical site, which exhibits typical postoperative morbidity also require much time to underwent prothetic rehabilitation. Aim of this case is to evaluate the clinical outcome of split crest osteotomy and clinical success. Conclusion: This procedure discards the need for onlay grafts taken from the hip, the maxillary tuberosity, the symphysis of the chin or the external oblique ridge. It avoids the use of a secondary surgical site that exhibits postoperative morbidity associated with bone harvesting. Additional advantage of the procedure is that immediate implant placement shortens the treatment and reduces the costs.

Keywords: Bone augmentation, implant, split-crest.

PP-29

THE SURGICAL COMPLICATIONS OF DENTAL IMPLANT APPLICATIONS IN THE MAXILLARY SINUS FLOOR

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Background: The edentulous posterior maxilla generally provides a limited amount of bone volume owing to atrophy of the alveolar ridge and pneumatization of the maxillary sinus. Consequently, dental implant placement in the posterior maxilla can be complicated. Because such implants are usually inserted marginally to the floor of the maxillary sinus, this approach has a high risk of seating the implant into the maxillary sinus.

Aim: One of the most important complications in the sinus surgery is the migration of the implant to the maxillary sinus. Because of this clinicians have to be prepared adequate theoretically and practically when studying in the sinus.

Material and Methods: In 2008, 50 years old male patient applied to our clinic. The patient was assessed clinically and radiographically. In panoramic radiography a migrated dental implant which applied 3 months ago was observed in the right maxillary sinus. With an operation the implant was put out of the sinus. 3 months later 2 dental implants were inserted in the posterior maxilla and the edantulism was rehabilitated with a fixed prosthesis. The other male patient who applied to our clinic with prothetic issues was assessed clinically and radiographically. In panoramic view it was observed that 8 dental implants were applied to the maxilla but 2 of these were migrated into the left maxillary sinus and 2 were into the right maxillary sinus.

Result: In the first case patient was rehabilitated with a fixed prosthesis and he is being followed up for a year. In the second case the patient’s prothetic issues were resolved without any operation. The implants and the patient is still being followed up.

Conclusions: The displacement of implants into the maxillary sinus is usually related with a poor surgical planning or inadequate surgical technique. Because of the anatomy and physiology of the...

Keywords: Dental implant, dental implant complications.
REHABILITATION OF SEVERELY ATROPHIED MAXILLA WITH COMPUTER AIDED DRILLING GUIDE FOR IMPLANT THERAPY AFTER RECONSTRUCTED WITH INTRAORAL GRAFTING METHODS

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Dental implants have been shown to provide a reliable basis for fixed prosthesis even patients with a severely resorbed edentulous maxilla. Providing sufficient bone volume with intraoral grafting methods enabling implants to be placed at the most optimal positions from a prosthetic point of view. Prediction and planning of implant supported prosthesis for edentulous patients is one of the most challenging issues. Aim of this presentation is to evaluate a sample case that was augmented previously with intraoral block grafting techniques by aid of 3D digital planning and the realization of implant planning with computer aided drilled surgical templates.

Keywords: 3D planing, atrophied maxilla, implant, intraoral grafting, surgical templates.

A SIMPLE DEVICE FOR INCREASING INTERDENTAL SPACE BEFORE IMPLANT PLACEMENT

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Use of dental implants became a widespread and acceptable treatment modality, with an overall good long term prognosis. Nowadays, dental implants are considered as routine, and are preferred over other modalities such as removable or fixed partially dentures or etched cast restorations supported by neighbouring teeth. However, sometimes placement of an implant becomes impossible because of insufficient space. Congenitally missing tooth, loss of a tooth because of periodontal disease or trauma, long-lasting post-extraction sites, or lost tooth structures caused by caries may cause drifting of teeth and loss of coronal space, that may preclude implant placement. Conventional orthodontics can frequently be used to regain adequate space for implant placement, but these procedures are time-consuming, less comfortable and expensive. In this case presentation, gaining an adequate space for implant placement by a simple orthodontic mechanic device (E-Z retainer) is described.

Keywords: Dental implant, device, insufficient, interdental space, orthodontics.
BONE HEIGHT MEASUREMENT OF MAXILLARY AND MANDIBULAR BONES IN DIGITAL PANORAMIC RADIOGRAPHS OF EDENTULOUS TURKISH POPULATION

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Objective: The purpose of this in vitro study were to determine variation in maxillary and mandibular vertical measurements and to assess vertical bone loss made from panoramic radiographs in edentulous measurements.

Materials and methods: In this descriptive study, a total of 600 panoramic radiographs of edentulous patient were examined. The mean ages of edentulous patients were 31 and 87 years respectively. Measurements were made from reference lines drawn from anatomic landmarks on standardized panoramic radiographs. All radiographs were made using a standardized manner by the same technician. Twelve sites were measured on every panoramic radiograph whenever possible, five sites in the maxilla and seven sites in the mandible.

Results: In the maxilla all vertical measurements distance were significantly greater in the edentulous men than in the edentulous women (p<0.05). In the mandible all vertical measurements distance were significantly greater in the edentulous men than in the edentulous women (p<0.05).

Conclusion: The results of this study may guide clinicians to make primer decision of implant insertion area for implant supported prosthesis in edentulous patients.

Keywords: Alveolar bone resorption, Entulous, panoramic radiograph, vertical height.

TWO DIFFERENT TREATMENT MODALITIES PROVIDED BY DENTAL IMPLANTS FOR TOTALLY EDENTULOUS PATIENTS

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Traditional dentistry provides limited treatment options for the edentulous patients. However with dental implants, a number of treatment options are available for these patients. Dentists should regard the patient’s desire but determine the treatment modalities by physiological level of the patient and anatomical limits of the jaws. In the present study, two different prosthetic options were presented. This study shows two different successful treatments of totally edentulous patients either a fixed prosthesis with twelve or overdenture prosthesis supported by eight dental implants. For both cases esthetic results and patient’s satisfaction were evaluated and compared between two different treatment options.

Keywords: Dental implant, edentulous patient, implant supported prosthesis, implant therapy.
ASSESSMENT OF THE QUALITY OF LIFE IN PATIENTS WITH DENTAL IMPLANTS

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Introduction: In the past few years, the quality of life has been getting more and more important in dentistry. It’s been shown that dental implants have a great role on patient’s contentment. The aim of this clinical study was to determine the Dental Impact on Daily Living (DIDL) before surgery and after prosthodontic treatment. This article is a preliminary report of our clinical study.

Materials and methods: 14 patients (10 patients have fullmouth prosthesis) has been involved in this research. We use the locator system for the patients who were rehabilitated with total prosthesis. DIDL was determined before surgery and 3 months after prosthodontic treatment.

Results: Results were subjected to non-parametric statistical Wilcoxon signed-rank test. Significant differences were recorded for all dimensions. (p < 0.05)

Conclusion: None of these factors only determined the contentment of the patients from their rehabilitation. DIDL test gives an opinion about patient’s expectations to the surgeon and the prosthodontist.

Keywords: Dental implant, DIDL- index, life quality.

THE PALATAL SUBEPITHELIAL CONNECTIVE TISSUE FLAP METHOD FOR SOFT TISSUE MANAGEMENT IN MAXILLARY DENTAL IMPLANTS: A CLINICAL REPORT


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In this presentation a technique for soft tissue reconstruction associated with maxillary implant supported restorations is reported. A pedicle subepithelial connective tissue flap (palatal roll graft) is prepared from adjacent palatal mucosal area and displaced into the receptor site. The donor site remains primarily covered. An increase in soft tissue volume is achieved at receptor site, which is advantageous for various reasons. The pedicle graft has been used for different indications: closure of the alveolus after immediate dental implants placement, dental papilla reconstruction, defect and dehiscence, multiple layer closures after bone grafting and treatment of periimplantitis. Over 19 months period, 11 patients were treated with this method. Partial or total flap necrosis did not occur. All patients showed significant improvement over the preoperative condition.

Keywords: Anterior maxillary dental implants, mucosal flaps, pedicle grafts.
IS LOCAL INfiltrATION ANESTHESIA EFFICIENT FOR DENTAL IMPLANT APPLICATION IN MANDIBULAR POSTERIOR AREA?


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The aim of this study is to investigate necessity of alveolaris inferior block anesthesia in placement of posterior dental implant. 989 patients who were referred to Ankara University, Department of Oral and Maxillofacial Surgery, indication of mandibular posterior implant placement were included in this study. The method of anesthesia for the operation area was local (Ultracaine, Articaine Hydrochloride) infiltration to the mandibular buccal and lingual tissue 2324 dental implants were inserted to the patients. Patients satisfaction in terms of intra-operative sensation and comfort, postoperative paresthesia were evaluated with three point scale. None of the patients showed paresthesia or discomfort during or after the operation. Local infiltration anesthesia without inferior alveolar nerve block for placement of dental implant in mandibular posterior area is a safe and efficient method.

Keywords: Dental implant, infiltration anesthesia, mandibula posterior.

CLINICAL COMPARISON OF GINGIVAL FORMING TECHNIQUES IN TWO STAGE IMPLANT SURGERY

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Gingival esthetics has become an important factor in the overall success of most implant-supported restorations. Periodontal plastic surgery procedures may be used to enhance esthetics in the maxillary anterior region. Surgical flap procedures currently used for the placement of endosseous implants often can result in damage to the interdental papilla with subsequent poor esthetics. The use of anatomic abutments enables natural contours on the periimplant tissues during the healing phase. However, optimum healing response can be provided with a provisional restoration instead of the anatomic abutments which have limited shape. The purpose of the present study is to introduce the surgical approaches, performed at implant exposure.

Keywords: Dental implant, Gingival esthetics.
CLINICAL AND RADIOGRAPHIC ASSESSMENT OF SINUS LIFT AND IMPLANT PLACEMENT IN A SERIES OF CASES


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Introduction: Following tooth loss, because of the pneumatization of the maxillary sinus, bone height is limited. Due to the limited availability of alveolar bone, using dental implants to replace missing teeth in the posterior maxilla has been a challenge for dentists. Various sinus-lift techniques have been used for bone augmentation. Sinus-lift techniques offer a high degree of success and predictability. In this report, 8 advanced atrophic maxillary sinus cases are treated with sinus lift following by implant placement six months later.

Case Reports: 6 patients attended to our clinic with the complaint of atrophic posterior maxilla with bone thickness below the maxillary sinus lower than 5 mm. 4 patients were partially dentate and 2 were edentulous. 8 maxillary sinus lifting procedures were performed in these patients. After a 6-month period for bone healing, a total of 25 endosteal Titanium screw implants were inserted. Radiographs were taken before the time of sinus augmentation and after 6 months of graft healing. Following a 6-month osseointegration period, the implants were exposed and loaded with fixed prostheses.

Discussion: Sinus augmentation procedures have reached widespread use and have resulted in the highest success rates of all augmentation procedures. A lateral window approach has been commonly used to augment the maxillary sinus with a high degree of success and predictability. In our series of cases all the sinuses healed uneventfully and gained a successfull height of bone for implant placement. We lost only one implant after 2 months of insertion because of the buccal bone fracture during the drilling of the implant socket.
IMMEDIATE LOADING OF DENTAL IMPLANTS USED FOR MAXILLARY DEFECT RECONSTRUCTION: 2-YEAR FOLLOW-UP

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Background: Reconstruction of a functional occlusion in the presence of severe residual ridge resorption remains a significant challenge for maxillofacial surgeons and prosthodontists. Removable appliances have limited use in severely resorbed cases. Bone graft reconstruction of the maxilla in cases when the alveolar crest is too narrow and nasal perforation is also incuded to host an implant, lateral augmentation is required.

Objectives: To reconstruct a maxillary defect including nasal perforation by means of a bone allograft as an alternative to autogenous bone graft with immediately loaded dental implants.

Materials and Methods: A 60-year-old female patient with an edentulous maxilla and nasal perforation received mineralized bone allografts (Mineross, USA) to augment the maxillary bone defects and alveolar residual ridges. Eight endosseous micro-roughened implants (SLA and SLActive, Straumann, Switzerland) were placed simultaneously with bone augmentation procedure. After resonance frequency analysis (RFA) (Osstell Mentor, Sweden), the implants having an ISQ of at least 65 were loaded with acrylic resin splinted suprastructures supported by metal framework within 48 hours after surgery. After 7 months, definitive fixed partial dentures were fabricated. The patient was followed-up for 2 years by clinical and radiological evaluations with 6-month intervals.

Results: During the follow-up period, no complications were observed both clinically and radiographically. Periodic radiographs revealed that nasal perforation was obstructed with uneventful bone healing. Mean ISQ values increased to 80 after 7 months, before definitive prostheses fabrication.

Conclusion: Bone allograft can be used to increase the width of the atrophied narrow alveolar crest as a good alternative to autogenous bone grafts in elderly patients. Further studies with larger samples are required to conclude similar results for bone allograft use as an alternative to autogenous bone grafting with immediate loading.

Keywords: Allograft, dental implants, immediate loading, maxillary defect.
IMPLANT TREATMENT FOLLOWING MAXILLARY AUGMENTATION USING ILIAC GRAFT

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Introduction: Bone augmentation procedures are necessary prior to implant placement when severe bone atrophy is present. Autogenous bone is considered as gold standard for bone augmentation procedures. It can be harvested from both intra-oral and extra-oral donor sites. If large amount of autogenous bone is necessary, extra-oral donor sites are used.
Case: A 47-year-old male patient with severe maxillary atrophy was presented in this report. Following Cone-Beam Computed Tomography (CBCT) examination, bilateral sinus augmentation and onlay block augmentation using autogenous bone harvested from anterior iliac crest was performed under general anesthesia. Twelve implants were placed into the edentulous mandible and maxilla after 4 months of healing. Implant supported fixed prosthetic treatment was performed after 5 months.
Discussion: CBCT imaging provides valuable data in terms of treatment planning for bone augmentation and implant treatment. Iliac crest, as an extra-oral donor site, provides sufficient autogenous bone for augmentation procedures when severe bone atrophy is present.

Keywords: Augmentation, CBCT, autogenous graft, iliac crest, implant.
FRACTURE OF DENTAL IMPLANT: A CASE REPORT

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Introduction: Fracture of dental implants is a rare phenomenon with severe clinical results. However, when it occurs, its management is challenging because of its surgical, rehabilitative and emotional implications, and sometimes also for financial reasons. In this case, we estimate that the cause of the fracture is metal fatigue.

Case Report: A 55-year-old woman was referred to our clinic with a chief complaint of fractured dental implant. Intraoral examination revealed that the fractured dental implant which was supported overdentures with ball-attachment systems, and was replacing the maxillary left canine. The implant was broken sixteen months after the prosthesis was placed. Because osseointegration of the fractured implant was perfect and its removal could have caused a quite much bone volume loss, we preferred not to remove the fractured implant and to insert a new dental implant next to the existing fractured one. A dental implant was inserted in the fractured implant’s distal area in our department. After six-months of healing period with no complications noted, clinical osseointegration was achieved, and then a new prosthesis was made and the patient was followed for the next two years. Fractured Implant piece was not symptomatic. The patient had any complaint and was very pleased.

Discussion: Several factors as a design or production flaws, insufficient fit of the superstructure, load factors are related to occlusal forces, the existence of occlusal parafunctional activity such as bruxism, the implant’s bearing forces, number, position, location, design of implant, implant size, restoration are insufficient to the site needing rehabilitation, metal fatigue and an marginal bone loss around the implant have been suggested as possible causes for dental implant fractures.

Conclusion: In this case, it could be minimally fracture risk, if it had been inserted four implants and wider implants instead of two.

Keywords: Fracture, dental implant, treatment approach.

DOES IT WORK CUSTOM-MADE SURGICAL GUIDE FOR DENTAL IMPLANT INSERTION IN THE EDENTULOUS POSTERIOR JAWS?

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Aim: Although implant placement of jaws is surgical procedure, reports of this topic, using surgical guide while inserting, in the oral and maxillofacial literature are sparse. Successful implant-supported restoration is based on proper implant placement. This article describes importance of surgical template for achieving implant placement mesiodistal and labiolingual parallelism in the edentulous posterior jaws.

Material/Methods: A custom-made surgical template (Cst), used to treat 29 patients (17 males, 12 females) in whom totally 58 implants, respectively, were inserted in the lower and upper jaws.

Results: All implants were successfully implanted into favorable positions because of using Cst. After 6-8 weeks, implant-supported restorations were done. All bridges were semented.

Conclusions: Due to Cst, all implants placed in acceptable position and final restorations were contoured and esthetic. The present study show that the surgical template is useful for proper implant placement.

Keywords: Dental implant, edentulous jaw.
THE SUCCESS RATE OF MINI IMPLANTS DURING INCISOR INTRUSION

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The purpose of this prospective study was to quantify the success rate of mini implants, which were used to intrude the four maxillary incisors. The study sample comprised 44 mini implants which were inserted to 22 subjects (12 female, 10 male) who were at the post pubertal growth period and had a deep bite. Self-drilling mini implants of 1.3 mm diameter and a length of 5 mm were used for the intrusion of four maxillary incisors together. The mini implants were located between the roots of maxillary lateral incisor and canine teeth at mucogingival junction on each side. Mini implants were inserted by mini implant driver under local anaesthesia with an angle of 60-70 degrees to bone surface due to provide better primer stabilization. The intrusion force which was 90 g per side was delivered by Ni-ti coil springs. The mini implants were loaded immediately. The force was maintained during the study. Five mini implants loosened after orthodontic force loading. The overall success rate was 88.8 %. The primary stability of the mini implant is essential. Self-drilling mini implants of 1.3 mm diameter and a length of 5 mm can be successfully used for the intrusion of four maxillary incisors.

Keywords: Deep bite, incisor intrusion, mini implant, success rate.
DENTAL IMPLANTS IN GENERAL DENTAL PRACTICE IN TURKEY: APPROACHES, OPINIONS AND EDUCATIONAL NEEDS


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Aim: Dental implantology has become a common treatment option for missing dentition. This state-of-the-art innovation has advanced to the point that general dental practitioners perform procedures that were carried out only by trained specialists in the past. The aim of this study was to determine how general dentists operate implant treatment in their practice, their opinions and perceived needs of training on implant dentistry.

Study design: A survey was carried out by providing a 14-item questionnaire to 100 randomly selected dentists practicing in three different towns in the Mediterranean region of Turkey.

Results: Although almost all participants claimed that they offer implants as one of the treatment options to their patients for the restoration of missing teeth, 54 dentists stated that they implement implant treatment in their practices. 68% of the respondents who practice implant treatment get help from a specialist for surgical insertion but none required specialist help for the construction of superstructures. 38% of the female dentists as opposed to 64% of their male counterparts perform implant treatment. The period of time since graduation had no correlation with the implementation of implant treatment in the practices. Only 11 participants felt that they had received satisfactory undergraduate education on implantology. 45 of the participating dentists who don’t implement implant dentistry would like to perform implant treatment after appropriate training. 46 of the respondents consider implantology as a specialist’s treatment, majority of which believe that it involves a multidisciplinary approach.

Conclusion: Nearly half of the participant dentists have integrated implant treatment into their practice while the other half expressed a desire to do so following an adequate training. Therefore, more educational resources should be provided for the general practitioners to gain skills in basic implant dentistry.

Keywords: Dental implants, general dental practitioners, survey, questionnaire
PP SESSION - TRAUMA

PP-45

MANDIBULAR FRACTURES AND TREATMENTS


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Mandibular fractures are one of the most common bone injuries of all facial fractures. In the management of any bone fracture, primary goal of treatment is to restore function by maintaining union of the fractured segments. The fractured bone segments are needed to be stabilized by mechanical means in order to ensure the physiologic healing process. Reduction of the fracture can be achieved either with an open or closed approach. In the closed reduction the fracture site is not surgically exposed and restoration of the segments maintained by intermaxillary fixation (IMF) or extraoral appliances. In open reduction internal fixation (ORIF), the fracture site is exposed, allowing direct visualization and confirmation of the procedure. The use of internal fixation technique using plate and screw systems has shown to be greatly successful with the minimal incidence of nonunions and postoperative infections. In this report, we present mandibular fracture patients treated by both IMF and ORIF in our clinic and discuss along with the literature review.

Keywords: Fracture, intermaxillary fixation, open reduction internal fixation.

PP-46

MANAGEMENT OF MULTIPLE MAXILLOFACIAL FRACTURES: A CASE REPORT


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Introduction: Maxillofacial injuries constitute a substantial proportion of cases of trauma. Many studies have reported about the anatomic localization, causes, age and gender distributions, treatments, treatment results, and incidences of maxillofacial fractures. Techniques for the treatment of maxillofacial fractures include fixation with miniplates, wire fixation, intermaxillary fixation, and conservative treatment with extraoral Barton bandage.

Case report: In this report a 57 year old male patient with the complaints pain, swelling and bruising around his left eye and cheek, diagnosis and treatment of zygomatic and mandible fractures is presented.

Discussion: Fractures can occur at any age and the facial area is one of the most frequently injured parts of the body. A conservative approach should be considered first for mandible fractures. In most situations both maxillomandibular fixation and rigid internal fixation are available to the patient. Fracture of the zygoma is the second most common facial fracture by the prominent position of malar prominence.

Keywords: Multiple maxillofacial fracture, management of fracture.
PLATING THE POSTERIOR BORDER OF THE MANDIBULAR RAMUS BY MODIFIED BLAIR AND RETROPAROTIDREAL APPROACH IN THE TREATMENT OF A SUBCONDYLYAR FRACTURE

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Mandibular condylar fractures have a high incidence but there is no consensus regarding the best choice of the treatment method. The aim of the current paper is to describe the surgical management of a subcondylar fracture in a 23-year-old man treated by plating the inferior border of the mandibular ramus with accessing the fracture line via retromandibular approach combined with semi-preauricular incision. The retromandibular approach combined with semi-preauricular incision seemed to be a simple and short method, and the completely exposed operative field facilitated reduction and fixation. Furthermore, it reduced the risk to the facial nerve. However, the scar tissue formation still remains unavoidable.

**Keywords:** Modified blair, retroparotideal, subcondylar fracture.
USING DECOMPRESSION TECHNIQUE TO TREAT A LARGE DENTIGEROUS CYST: A CASE REPORT

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It is well known that a dentigerous cyst, which is often detected through a localized swelling of the alveolar bone in preadolescents, inhibits the eruption of the cyst-associated permanent tooth.1,2 Treatment modalities range from enucleation to marsupialization, and are based on the premise that the pathological process can be controlled locally with minimal injury to the adjacent host structures. CASE REPORT A 7 years old boy was referred to an oral and maxillofacial surgery clinic for consultation regarding an asymptomatic extraoral expansion of the right mandible. There was no previous facial trauma or contributory medical history. Clinical examination revealed an expansion in the right mandibular vestibule covered by healthy –appearing and freely movable mucosa that extended from deciduous first molar to permanent first molar tooth. The patient reported no pain during palpation, and, the oral and maxillofacial surgeon did not not any neurosensory deficits. Radiographic examination detected a large unilocular lesion with involvement permanent second premolar tooth crown. Radiographic examination showed a resorption deciduous first molar root and displaced first and second permanent premolar tooth buds. Radiographic and clinical diagnosis of a dentigerous cyst was made at this time Material and Methods Inferior alveolar anesthesia was performed right mandible and then deciduous first molar tooth extracted. Cholesterol crystals were aspirated in the sample, and a small amount of blood were aspirated at the end of the aspiration. Cystic cavity was irrigated with 20 cc sterile saline solution three times. Into this bony window, 2.5 cm length intravenous tubing was inserted and sutured with mucosa. After surgery the patient was instructed to irrigate the cystic space through this fenestration tube at least twice each day with sterile saline. The technique of fenestration was used in this case to aid in the correct development and eruption of the permanent dentition.

Keywords: Decompression, dentigerous cyst, eruption, mandible.

A GENESIS OF MANDIBULAR CENTRAL INCISOR: TREATMENT WITH ORTHODONTICS AND IMPLANT APPLICATION (CASE REPORT)

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Congenital or acquired missing anterior teeth create a major esthetic problem. For treatment commonly use two way: opening the space for prosthodontically replacement, or closing the space with orthodontics. In our days, after the development of esthetic view and technologie, first way of treatment is most usefully; opening space and implant application. In our case for treat one side congenitately missing central tooth, we decided open the space orthodontically and after enough space we placed the implant. We used graft materials and membran for enlargement of bone. After surgery monthly controls are continue for prosthodontics.

Keywords: Anterior tooth genesis, implant application, orthodontic treatment.
PP SESSION – ORAL SURGERY

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DENTIGEROUS CYST WITH AN IMPACTED CANINE: (3 CASE REPORTS)

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Dentigerous cysts are the second most common developmental odontogenic cysts after radicular cyst. They usually present in the second or third decades of life and these cysts are rarely seen during childhood. Their frequency in the general population has been estimated at 1.44 cyst for every 100 unerupted teeth. According to frequency of impaction, the maxillary permanent canine ranks second only to the third molar, with a prevalence of approximately 2% in the general population. Impacted canines are positioned palatally 85% of the time. The frequency of impaction is three times greater in females than males. In many instances the cyst may be asymptomatic till it attains a large size. It usually presents as a slowly enlarging, sometimes painful swelling, particularly if infected. At radiography, dentigerous cysts appear as well-defined, round or ovoid, corticated, lucent lesions around the crowns of unerupted teeth. The radiographic appearance of such dentigerous cysts is comparable with that of cystic, unilocular odontogenic keratocysts. Treatment includes extraction of the associated tooth and removal of the entire cyst. In this study we present there cases with dentigerous cyst that caused by impacted canine.

Keywords: Dentigerous cyst, impacted canine.

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A COMPLICATION OF LARGE EXPANSIVE RADICULAR CYSTS: N. ALVEOLARIS INFERIOR PARESTHESIA (TWO CASE REPORTS)


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Radicular cysts are the most common in all jaw cysts and comprise about 52 to 68 of all the cysts affecting the human jaw. The highest incidence is in the third decade of life and male predilection is higher than women. They have been classified as inflammatory cysts originating from Malessez’s cell rests, secondary to pulp necrosis. According to the World Health Organization, the jaw cysts of inflammatory origin have one type is; the radicular cysts. Radicular cysts have the potential to reach considerable sizes in the jaws that may develop aseptically and demonstrate expansions, may cause significant bone resorptions. The most common symptom is pain, which may or may not be accompanied by swelling. Other reported symptoms and signs include paresthesias and tooth displacement or mobility. Radicular cysts are not typically associated with nerve disturbance. Nerve disturbance is usually related to malignancies, direct or indirect injury to the neurovascular bundle, various systemic diseases, or neurological diseases. Inferior alveolar nerve is sometimes affected by periapicals lesions and mandibular cysts. There are few reports in the literature about mandibular cysts that causes inferior alveolar nerve disturbance. Therefore we aimed to present cases with inferior alveolar nerve paresthesias caused by radicular cysts.

Keywords: Large radicular cysts, n.alveolaris inferior paresthesia.
AN UNUSUAL SIZE SIALOLITH OF WHARTON’S DUCT: A CASE REPORT


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Sialolithiasis is the formation of calcific concretions within the ductal system of major or minor salivary glands. Sialolithiasis of the salivary gland ducts is a relatively rare occurrence. The most of the sialoliths are usually of 5 mm in maximum diameter and all the stones over 10 mm should be reported as a sialolith of unusual size. Here we present an unusual case of 14 mm in size where in a 48 years old female patient presented with sialoliths in her submandibular duct.

Keywords: Sialolith, wharton’s duct.

A LARGE DENTIGEROUS CYST OF RAMUS MANDIBULA: A CASE REPORT


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Dentigerous cyst is a benign odontogenic lesion associated with the crowns of impacted, unerupted teeth, most often the mandibular third molar. They are the most common developmental odontogenic cyst and the second most common cystic lesion of the jaws following to radicular cysts. Seventy-five percent of dentigerous cysts arise in the mandible. They generally grow without pain and the cyst-associated tooth is commonly displaced. Radiographically they are well-defined, unilocular radiolucent lesions that surround the crown, may displace adjacent teeth and produce root resorption. A large dentigerous cyst, 5 cm in its largest diameter, associated with mandibular third molar which is repositioned to mandibular ramus was reported. The lesion was incidentally realized during routine preprosthetic investigation, radiographically; as there was no subjective symptom related to the lesion. Enucleation of the cyst together with the impacted tooth is performed under general anesthesia.

Keywords: Dentigerous cyst, impacted teeth, ramus.
EVALUATION OF GIANT CELL GRANULOMA AND SURGICAL TREATMENT
11 CASE SERIES

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Giant cell reparative granuloma (GCRG) is a common benign entity. It can vary from an asymptomatic slow growing mass to a locally destructive aggressive lesion. It usually affects the mandible and maxilla in the head and neck region with an unknown etiology. Clinically and radiologically, a differentiation between aggressive and non-aggressive lesions can be made. The incidence in the general population is very low. Surgical curettage or, in aggressive lesions, resection, is the most common therapy. However, when using surgical curettage, undesirable damage to the jaw or teeth and tooth germs is often unavoidable and recurrences are frequent. In this study we evaluated 11 cases treated by surgical excision and debridment.

Keywords: Giant cell granuloma, surgical treatment.

UNUSUAL HYPERTROPHIC DRAINING CHEEK FISTULA DUE TO LOW GRADE ACTINOMYCOSIS: A CASE REPORT

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An orofacial fistula is a pathologic communication between the cutaneous surface of the face and the oral cavity. Chronic dental periapical infections or dentoalveolar abscesses cause the most common intraoral and extraoral fistulas. In this case, we report a 42 years old female patient with rare exacerbation of a previous periapical infection related with 25 and 26 teeth and firmly attached extraoral fistula scar at the cheek region. After surgical intervention and excision of large sinus tract biopsy results confirmed cervico-facial actinomycosis. Cervico-facial actinomycosis of previous oral cutaneous fistula have not been reported in the literature especially comparing with this size in our case.

Keywords: Actinomycosis, dentoalveolar abscesses, extraoral fistulas.
DISPLACEMENT OF A TUNGSTEN-CARBIDE SURGICAL BUR IN BUCCAL SOFT TISSUE DURING THIRD MOLAR OPERATION: A CASE REPORT

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A 40 year-old woman was referred to the Department of Oral Medicine and Surgery, Istanbul University, Faculty of Dentistry with the complaints of pain in the left mandibular space. In her dental history she had her left mandibular third molar extracted 6 weeks before with an operation. After clinical and radiographical examination; a part of the third molar and a foreign body was detected. By surgical approach under local anesthesia, the part of third molar and the foreign body were removed. The foreign body was a 5 mm long tungsten-carbide low-speed surgical handpiece bur which was located in buccal soft tissue and encapsulated. After the operation she was prescribed antibiotics and analgesics. After a week period of recovery, the patient’s complaints of pain were diminished. In her 4 week follow-up control, all her complaints were eliminated.

Keywords: Buccal soft tissue, bur, foreign body, third molar, tungsten carbide.

INTRAOSSEOUS EPIDERMOID CYST OF ANTERIOR MAXILLA - A CASE REPORT

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Introduction: Epidermoid cysts are soft tissue tumors and rarely seen at head and neck region. Intraosseous localization of this pathology is very rare in the jaws and just a few cases reported in the literature. The purpose of this report is to determine unexpected pathology can be seen at jaw bones.

Case Report: A 59-year-old male referred to the clinic for routine dental evaluation. The patient was asymptomatic. He had no complaints related with this pathology. His medical status was ASA-I and he was free of systemic problems. Alveolar mucosa was intact and there was no expansion at the lesion site. Besides, there wasn’t trauma history to the jaw region. Radiologic examination revealed unilocular radiolucent area at the anterior right maxilla with well circumscribed sclerotic border. The patient was scheduled to surgery and unilocular intraosseous mass was removed totally. Microscopic examination revealed a cavity that was lined by stratified squamous epithelium resembling epidermis. A well developed granular cell layer was observed and the lumen was filled with regenerating orthokeratin. The pathological diagnosis was epidermoid cyst.

Conclusion: In conclusion although epidermal cyst is extremely rare in jaw bones, it should also be considered in the differential diagnosis of the radiolucent lesions of the jaws.

Keywords: Epidermoid cyst, intraosseous cyst.
ORAL LIPOMA WITH AN UNUSUAL LOCALIZATION: CASE REPORT

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Lipomas are benign mesenchymal tumors composed of normal adipocytes and usually surrounded by a fibrous capsule. They are common soft tissue neoplasms but occur in oral cavity rarely. Buccal mucosa is the most common localization for oral lipomas especially originates from buccal fat pad. Treatment procedure is surgical excision and recurrence is not expected. This report describes a case of lipoma occurred following recurrent aphthous stomatitis and localized in lower lip where is an unusual area.

Keywords: Aphthous stomatitis, lipoma, lower lip.

AN ATYPIC COMPLICATION OF INFERIOR ALVEOLAR NERVE ANESTHESIA: A CASE REPORT

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Inferior alveolar nerve anesthesia is one of the most common dental procedures in oral and maxillofacial surgery. This technique generally provides safe anesthesia when injection performed carefully and in recommended dosage limits however; some local and temporary complications or side effects may occur. In the presented case, an unexpected atypic complication of inferior alveolar nerve blockage characterized with petechiae in the lower lip following injection is described.

Keywords: Lower lip, anesthesia, petechiae.
EFFECT OF PLATELET-RICH FIBRIN ON PAIN, SWELLING AND TRISMUS FOLLOWING IMPACTED THIRD MOLAR SURGERY

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Surgical removal of lower third molar teeth is a common procedure in the Oral and Maxillofacial Surgery and is associated with potential postoperative complications including pain, swelling and trismus. Platelet-rich fibrin (PRF) represents a new step in the platelet gel therapeutic concept and can be considered as a healing biomaterial. The aim of this study is to compare the incidence and severity of postoperative complications after mandibular third molar surgery using PRF as a healing material in the extraction cavity. This study is being carried out in Erciyes University and Kirikkale University Oral and Maxillofacial Surgery Departments simultaneously. Patients with bilateral impacted third molars which have the same degree of surgical difficulty included in this study. In every patient all lower third molar surgery was performed in a single visit. PRF was prepared and placed into one of the extraction cavities. Patients weren't informed about the PRF placed side in order not to affect their subjective evaluations. All the patients were treated by the same operator under standard clinical conditions. The evaluation of the facial swelling was carried out at 24 hours and 48 hours after the procedure by using a horizontal and vertical guide. Pain was evaluated in the postoperative period using a visual analog scale (VAS) for 1 week. The results showed that PRF seems to reduce pain and swelling but there is need to improve this study on a larger group of patients.

Keywords: Pain, platelet rich fibrin, swelling, third molar surgery.

OSTEOMA ASSOCIATED WITH IMPACTED THIRD MOLAR IN MAXILLARY SINUS

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Introduction: Osteomas are a type of benign bone-forming tumour. Even osteomas are common in sinonasal areas it’s rare to be associated with the teeth. Osteomas are generally asymptomatic and are diagnosed coincidentally on routine radiographs. Case: A 37 year-old male patient was referred to our clinic for impacted third molars. A “mushroom” shaped radiopaque mass in left maxillary sinus associated with the root of impacted upper third molar was diagnosed and this fact confirmed with CT. Patient underwent surgery, the mass and associated tooth totally extracted. In pathologic examination mass was found to be compatible with osteoma.

Discussion: Osteomas of the maxillary sinus are benign tumours of slow evolution. In fact, they represent only 5 % of the tumours involving this site. Although various theories (including development from periodontal ligament) have been advanced to explain the pathogenesis, it is difficult to establish a specific cause-effect relationship. Diagnosis is usually made by chance, usually during x-ray examination for another condition. Surgery is required for treatment.

Conclusion: It can be said that, periodontal ligament of impacted third molar has a capability of development of osteoma.

Keywords: Maxillary sinus, osteoma, third molar.
EVALUATION OF THE RELATIONSHIP BETWEEN POST-OPERATIVE MORBIDITY WITH PRE-OPERATIVE DIFFICULTY, INDIVIDUAL FACTORS AND OPERATION TIME IN LOWER THIRD MOLAR


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Third molar extractions are performed routinely in daily practice. There are some factors that affect the difficulty of third molar extractions and these factors are related with some post-operative results which appear after third molar extractions. The purpose of this study is to evaluate the pre-existing factors that affect the surgical difficulty of third molar extractions and its relationship between post-operative morbidity. We used Pederson index (angulation, ramus distance, depth) to evaluate the difficulty of third molar extractions as well as operation time and general pain thresholds of the patients. Postoperative edema (pre-operative, post-operative 1st day and 7th day) and maximum interincisal opening (MIO) of the patients (pre-operative, post-operative 1st day and 7th day) were measured. Results; postoperative morbidity is strongly related with operation time, extraction technique and ramus distance rather than Pederson difficulty index and angulation. In addition general pain perception of individual is a determining factor for post-operative MIO. Extraction technique and operation time might be considered as determining factors as well as pre-operative demographic findings for post-operative morbidity estimation.

Keywords: Difficulty, morbidity, third molar surgery.

AN ASEMPTOMATIC MURAL TYPE OF CYSTIC AMELOBLASTOMA: CASE REPORT

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Introduction: Ameloblastoma is a lesion which occurs predominantly in the fourth decades, is usually asempotomatic and it is discovered during routine radiographic examination. In this poster presentation mural type of cystic ameloblastoma was detected in routine radiograph and unilocular radiolucency in the right posterior mandible seen.

Case: A 19 year-old girl was referred to Oral and Maxillofacial Surgery Clinic, by her dentist for a radiolucency that was detected during a routine dental visit. Paresthesia or pain had not seen. There was no significant facial asymmetry. The lesion was enucleated, and the bony cavity was curetted free of debris. Histopathologic examination showed that it was mural type of cystic ameloblastoma.

Discussion: The literature indicates that the cystic variant is less aggressive and has a better response to enucleation or curettage. In recent studies of cystic ameloblastoma, the overall recurrence rate for all cases are 15%, with some evidence to suggest that the mural histologic subtype has a greater recurrence rate than others.

Conclusion: Mural type of ameloblastomas, postoperative control is necessary because of the recurrence possibility. And the patient has been followed-up 1 year postoperatively.

Keywords: Enucleation, mural type of cystic ameloblastoma.
SEVERE PERICORONAL INFECTION IN A CHRONIC FAILURE PATIENT


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Chronic renal failure (CRF) is a progressive and irreversible decline in the number of functioning nephrons. Once the damage is past the point of compensatoin, patients develop end stage renal disease. Dialysis treatment and kidney transplantation are thus life-saving medical procedures in these patients. Dialysis treatment cause systemic changes, oral complications and alterations in salivary composition and output. Vomiting and reduced oral self-care could also negatively affect the oral health in chronic dialysis patients resulting in more caries, periodontal and oral infections. In this case report, we present a chronic renal failure patient on chronic hemodialysis with severe infection related to the semi impacted right mandibular third molar and its management.

**Keywords:** Chronic renal failure, hemodialysis therapy, infection.

KERATOCYSTIC ODONTOGENIC TUMOUR: A CASE REPORT

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Keratocystic odontogenic tumour is a common developmental benign odontogenic neoplasm in the jaws. The keratocystic odontogenic tumour is a locally aggressive odontogenic cyst lined by parakeratinizing epithelium that also exhibits characteristics of a neoplasm, including rapid growth, a high rate of recurrence when treated conservatively, and the presence of a gene mutation. We report a case of a 41-year-old patient with a keratocystic odontogenic tumor treated by enucleation for normal development of the involved impacted teeth. Differential diagnosis of the keratocystic odontogenic tumour still represents a challenging problem especially if compared with the dentigerous cyst, which is similar in clinical and radiological course. The most important clinical features of the keratocystic odontogenic tumor are its potential for locally destructive behavior, a tendency to recur, and its origin in the odontogenic epithelium. The clinical features of keratocystic odontogenic tumour are similar to those of ameloblastoma. Histologically, keratocystic odontogenic tumour is distinguished from jaw cyst with keratinization (orthokeratinized odontogenic cyst). However, current scientifically based clinical parameters cannot predict any potential for neoplastic behavior, or aggressive and localized invasiveness, in patients with keratocystic odontogenic tumour. Keratocystic odontogenic tumor is characterized by benign intraosseous neoplasm of odontogenic origin with high recurrence rates. Conservative or aggressive management has been suggested a method of treatment. Conservative approaches have some advantages in that they avoid adverse effects on the development of involved teeth and the jaw when the patient is young, although aggressive methods, including surgical resection, can be recommended considering the nature of the neoplasm.

**Keywords:** Keratocyst, odontogenic tumour.
DIAGNOSIS AND TREATMENT OF JAW NECROSIS DUE TO BIPHOSPHONATE THERAPY: REPORTS OF THREE CASES


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Introduction: Bisphosphonates are synthetic compounds like inorganic pyrophosphates in structure, they act as endogenous bone regulators and can not be metabolized invivo. Bisphosphonates resist hydrolysis unlike pyrophosphates. Bisphosphonates are in use for metastatic bone diseases, treatment of complications of osteolytic diseases like multiple myeloma and paget's disease, treatment of hypercalcemia occurring with malignancies and also for management of pain due to osteolytic bone diseases currently. They only effect the bone at physiological doses. Their half-life in circulation is very short, but they can stay for years in bone tissue. The aim of this representation is to determine the surgical approach to patients using bisphosphonates as well as how to treat chronic osteonecrosis. Three cases of bone necrosis occurring after dental operations or prosthesis irritation who had used zoledronic acid (Zometa) IV previously is represented with diagnostic and therapolitical approaches in this article. The first case of osteonecrosis after bisphosphonate was reported by Marx and Stern in 2002. The definition was made as non-healing open bone wound on the jaw bones during more than eight weeks' period in patients who had oral or intravenous(IV) bisphosphonates but never had radiotherapy. This process can occur not only by prosthesis irritation but also spontaneously. Invasive procedures as tooth extraction, periodontal operations, implant surgery, oral surgical operations can also lead to osteonecrosis. Withdrawal of the drug, sequestratomy, repairment of sharp edges on the bone non-traumatically, antibiotics, hyperbaric oxygen, soft tissue stimulation with laser are the treatment modalities. No standart therapy protocol has been established yet.

Keywords: Bisphosphonate, jaw necrosis.

OSTEONECROZIS OF THE JAW IN A PATIENT WITH RECTUM CANCER TREATED WITH ZOLENDRONIC ACID


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Bisphosphonates are widely used in the management of metastatic disease to the bone and in the treatment of osteoporosis. Cases of bisphosphonate related osteonecrosis of the jaws (BRONJ) have been associated with the use of bisphosphonate therapy. In BRONJ, the jaw bone is exposed with one or several necrotic areas. In addition to the duration and degree of exposure to bisphosphonates, the use of corticosteroids and chemotherapy may also play a role in the development of osteonecrosis of the jaw. Various strategies for management of patients with BRONJ were proposed. Although there are some controversies concerning the management of the BRONJ. Recently systemic antibiotics and oral antimicrobial rinses, a close follow up are recommended for BRONJ. A case of BRONJ in the jaw of the patient who had received zoledronic acid is presented. In this case are tested the efficacy of a protocol in presenting the development of BRONJ after tooth extraction.

Keywords: Bisphosphonate, osteonecrosis.
MARSUPIALIZATION AS A TREATMENT FOR THE ODONTOGENIC CYSTS: CASE SERIES


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**Introduction:** Marsupialization is a conservative treatment of large odontogenic cysts. This treatment method shows advantages in preserving vital structures and reduced risk of pathological mandibular fractures. Some patients who are not candidates for general anesthesia may be treated with marsupialization procedure under local anesthesia.

**Patients and Methods:** Seventeen patients (10 males and 7 females) between the ages of 9 and 59 with biopsy-proven 5 keratoctystic odontogenic tumor, 10 dentigerous cysts and 2 inflammatory cysts were treated by marsupialization. Modified Hawley appliance was used as obturator. 7 patients were treated by enucleation and curettage after marsupialization. The mean marsupialization period is 10 months. The remaining 10 patients are still under follow-up.

**Results:** In one patient after first marsupialization operation, the obturator was lost its affectivity and marsupialization gap was closed. The second operation was performed and a new obturator was prepared and reduction of the size of the lesion obtained.

In one patient, 7 months after marsupialization, cyst size didn’t reduce due to increased thickening of the capsule of the cyst. The lesion was enucleated after 9 months of marsupialization period. In the remaining patients shrinkage of the lesions was observed uneventfully without any complications like pathological fracture or neurosensory deficiency. Only 2 patients had temporary paresthesia which was resolved after marsupialization.

**Conclusion:** Marsupialization can be used as a conservative treatment option of large cysticlesions even for keratoctystic odontogenic tumor which has higher recurrent potential as long as thorough appliances are chosen strong radiographic follow-up is maintained and prolonged treatment period is tolerated by patient.

**Keywords:** Cyst, keratoctystic odontogenic tumor, marsupialization.

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NASOLABIAL CYST: A CASE REPORT


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**Introduction:** The nasolabial cyst is an uncommon non-odontogenic cyst that develops in the lower nasal alar region and locates in the upper lip. Although the pathogenesis is uncertain, the cyst occurs from epithelial remnants of nasolacrimal duct. Clinical features are reported as soft tissue swelling that seen in the canine region and nasolabial fold. The patient may complain of mild nasal obstruction. Pain can occur if the cyst becomes infected. In cases, if it makes depression in bone; the nasolabial cyst can be seen radiographically.

**Case:** In this paper nasolabial cyst located in the left alar region with a painless swelling. And as a treatment, enucleation by sublabial approach under local anesthesia is presented.

**Discussion:** Nasolabial cyst is easily differentiated from other cysts with features of lifting alar nose, swelling in nasolabial fold, mild nasal obstruction and vitality of the related teeth. This cyst is treated with surgical enucleation or transnasal marsupialisation. Recurrence is unexpected.

**Keywords:** Nasolabial cyst.
GLANDULAR ODONTOGENIC CYST OF THE MANDIBLE: REPORT OF TWO CASES

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Glandular Odontogenic Cyst (GOC) is a rare developmental cyst of the jaws. The histological features of GOC powerfully propose an origin from the remnants of dental lamina. There is an obvious overlap in the histomorphologic features between GOC, lateral periodontal cyst, botryoid odontogenic cyst, and central mucoepidermoid carcinoma of the jaws. The lesion has a potential of aggressive behavior. Therefore GOC has gained special attention by clinicians and pathologists. Radiologically, these cysts may be unilocular or multilocular with a well-defined border. Loss of cortical integrity and root resorption may occur. In this report, two cases of GOC are presented. Clinical, histological and imaging features evaluated.

The most common clinical appearance is the presence of an asymptomatic slow-growing swelling in the face, often observed at the anterior mandible with multilocular radiographic appearance as were found both of our cases. GOC occurs over a wide age range, with a mean age of 49 years, and there is a slight tendency for men. In this presentation there were two female patients aged 36 and 49. Mandible anterior region is involved in both of them. Intraoral examination showed alveolar bony swelling on lingual side one of the patients and vestibular side on the other. The mass was covered with normal color and intact mucosa. There was no sensory loss and obvious signs of infection. The first patient was free of symptoms after 1 year period while the second patient is still under follow-up. GOCs should be differentiated from other benign and malignant pathologies due to its radiographic and histologic features. More conservative methods (ie, excision, enucleation, curettage, thorough extirpation, and cryotherapy) should be taken into account in management of GOC.

Keywords: Enucleation, Glandular Odontogenic Cyst, mucoepidermoid carcinoma.

IMPACTED PRIMARY FIRST MOLAR AND PERMANENT FIRST MOLAR TEETH- A CASE REPORT

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Although impacted permanent teeth are often seen, this condition is so uncommon for primary dentition (1/10000). Even though permanent premolar teeth are erupted, impaction of related primary molar teeth is uncommonly seen. Impaction of permanent first molars is a rare condition and few cases were reported in literature. We present a case of maxillary impacted first primary molar and first permanent molar in which we discussed their etiological causes and treatment alternatives.

Keywords: Impacted permanent molar teeth, impacted primary molar teeth.
SEVERE FACIAL SPACE INFECTIONS OF ODONTOGENIC ORIGIN: A CASE REPORT

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Infections of maxillofacial space have been one of the most common diseases in human beings. The anatomic spaces can be graded in severity by the level to which they threaten the airway or vital structures, such as the heart and mediastinum or the cranial contents. Early recognition of these infections and appropriate therapy is absolutely essential. Complex and severe cases may require multidisciplinary approach. Patient management should be performed experienced clinicians well trained in managing possible complications. Infections in these spaces have been found following tooth extraction, odontogenic infection, maxillary sinusitis, maxillary sinus fracture and temporomandibular arthroscopy. In this report we described management of the patient who had infections in the facial spaces and investigated the pathways of spread of odontogenic infections.

Keywords: Buccal space, facial space, odontogenic infection.

TRAUMATIC BONE CYST OF THE MAXILA - CASE REPORT

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Traumatic bone cyst (TBC) is a rare disorder of the jaw bones, comprising only around 2% of all bone cysts affecting this area. TBC occurs mainly in children and young adults, most frequently during the second decade of life, and the body of the mandible is the most common site. TBC is an asymptomatic, slow growing, usually non expansile lesion and commonly diagnosed incidentally during routine radiographic examination of the jaw bones. Etiology of this clinical entity is not clear and trauma has not been definitely determined to be the cause. Routine radiographies play an important role in diagnosing this lesion. In most of the cases the diagnosis is confirmed by the finding of an empty cavity during surgical management. Simple exploration of the cyst may be the curative procedure for this lesion.

Keywords: Maxilla, traumatic bone cyst.
A COMPARISON OF THE CLINICAL ANESTHETIC EFFICACY OF 2% ARTICAIN AND 0.5% LEVOBUPIVACAINE FOR LOWER THIRD MOLAR REMOVAL

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Postoperative pain is a common phenomenon after surgery, due to surgical trauma and the release of pain mediators. Regarding the surgical removal of lower third molars, the maximum intensity of pain occurs in the first hours after the end of the surgery, when the local anesthetic has worn off. Theoretically, pain control can be increased by using a local anesthetic with a more prolonged action and analgesic power. Fifty three patients underwent removal of symmetrically positioned lower third molars, in 2 separate appointments, under local anesthesia either with articaine or levoabupivacaine, in a double-blind, randomized, and crossover manner. Time to onset, duration of postoperative analgesia, duration of anesthetic action on soft tissues, intraoperative bleeding, and hemodynamic parameters were evaluated. A statistically significant difference between the time to onset of articaine (80.28±19.27 seconds) and levoabupivacaine (136.69±33.52 seconds) was found (p<0.05). When patients received levobupivacaine they experienced a statistically significant longer period of anesthesia on the soft tissues as compared with when they had received articaine (around 8 hours and 3 hours, respectively, p<0.05). There was statistically significant difference in the duration of analgesia. When patients received levobupivacaine the first need of analgesics postoperative 7 or 8 hours, but when they received articaine its 3 hours (p<0.05). A statistically significant difference between the surgeon’s rating of intraoperative bleeding. When patients received levobupivacaine there was less bleeding than articaine, because of the self vasoconstriction of levobupivacaine. There was no statistically significant difference between the hemodynamic parameters regardless of the local anesthetic used. In comparison with 2% articaine, 0.5% levobupivacaine provided a longer period of analgesia, less hemostasis and postoperative pain control with a longer duration of soft tissue anesthesia in lower third molar removal.

Keywords: Articaine, levobupivacaine, third molar surgery.
TREATMENT OF RANULA WITH MARSUPIALISATION: CASE REPORT


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Ranulas develop from extravasation of mucous after trauma to the sublingual, submandibular glands or obstruction of the ducts. Pathological study has shown that most ranulas are pseudocysts, derived from sublingual gland. Clinicians have used several methods to treat ranulas such as total excision via intraoral or cervical approach, marsupialisation, intraoral excision of sublingual gland and drainage of the lesion and excision of the gland and lesion both. Despite all these methods, patients may experience recurrence. This study features 3 clinical ranula cases with the marsupialisation treatment option which has been performed in our clinics.

Keywords: Marsupialisation, ranula.
RETROSPECTIVE ANALYSIS OF IMPACTED FIRST AND SECOND PERMANENT MOLARS IN THE TURKISH POPULATION: A MULTICENTER STUDY

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Objectives: The purpose of the present study was to retrospectively analyze 170 case series of patients with 200 impacted first and second permanent molars.

Study design: Records of 104,408 patients were retrospectively screened in this multicenter study. The chosen study population consists of 170 patients who presented with impacted or retained first and second permanent molar. All patients with impacted first or second permanent molar had undergone clinical and radiographic examinations. The following factors were analyzed: age and gender, frequency, distribution, location, position, the number of impacted tooth, primary and secondary retention, degree of infraocclusion, associated pathologic conditions and treatment method.

Results: There were a total of 170 patients (male: 91, female: 79, mean ages 22.69±8.99 years ranging from 13 to 66 years of age) with 200 retained or impacted permanent molars. The overall prevalence of the impacted teeth was 168 (0.16%) second molars [81 lower (0.07%), and 87 (0.08%) upper] and 32 (0.03%) first molars [17 (0.01%) upper and 15 (0.01%) lower] in 104,408 patients. In this study, 200 impacted teeth which were analyzed were 125 molars (62.5%) vertical position, 17 (8.5%) horizontal, 38 (19%) mesioangular, 12 (6%) distoangular, and 7 (3.5%) buccolingual inclination. There were 52 primarily retained (26%) and 32 secondarily retained (16%) molars. 137 (68.5%) molars were asymptomatic. Cystic formation was present in 13 (6.5%) cases.

Conclusions: Although the impactions of first and second permanent molars do not occur frequently, it is important to make an early diagnosis in order to start treatment at the optimal time.

Keywords: Impacted first molar, impacted second molar.
COMPARING THE EFFECT OF TRAMADOL AND FENTANYL ON POSTOPERATIVE PAIN IN IMPACTED THIRD MOLAR SURGERY


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The aim of this study was to evaluate and compare the effect of fentanyl and tramadol, used in combination in the sedation procedures in postoperative third molar surgical extraction. This prospective randomized double-blind placebo-controlled study include 60 patient having horizontal third molar extraction operation indication and whose APAIS scores above 10 point. All the patients firstly were given 0.03 mg/kg bolus midazolam and then they were randomized three groups; Group A only midazolam, Group B midazolam and 1μg/kg fentanyl, Grup C midazolam and 1 mg/kg tramadol. All the vital signs were recorded and intraoperatif PSI samples were taken. Patients were assessed for postoperatief pain, adverse effects, patient-surgeon satisfaction. No differences were found in the heart rate records between the groups (p>0.05). Mean blood pressure readings were also similar till the 40th minute after when mean blood pressure of the patients in Group A were found lower then the other two groups (p<0.01). No difference was found in PSI scores between the groups (p>0.05). In the postoperative pain assessments, VAS scores of patients in Group C were lower than the other two groups in the postoperative 1st hour (p<0.05). The first rescue analgesic taking time in Groups A, B, C were reported 3, 3.5, 5 hours respectively and the first rescue analgesic taking time in Groups C was determined much longer than the other two groups (p<0.01). No difference was found in the patient-surgeon satisfaction between the groups. In conclusion tramadol has a better analgesic effect on third molar surgery than fentanyl and placebo.

Keywords: Conscious sedation, fentanyl, oral surgery, otoperative pain, tramadol.
EVALUATION OF MARSUPIALIZATION TREATMENT FOR ODONTOGENIC KERATOCYST: A CASE REPORT

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Odontogenic keratocysts (OKC) are characterized by their high recurrence rate, aggressive behavior, and occasional association with basal cell nevus syndrome. To reduce the high recurrence rate of OKC, it is essential to eradicate the epithelial component of the cyst completely. Recommended treatments have included curettage with peripheral ostectomy, curettage plus liquid nitrogen cryotherapy, curettage plus application of Carnoy’s solution, localized en bloc resection, and, occasionally, mandibular segmental resection. However, radical treatment is associated with numerous complications, including facial deformity, missing teeth, infection of transplanted bone, and permanent numbness of the region innervated by the mental nerve when OKC involves the inferior alveolar nerve. Marsupialization or decompression has been used as a more conservative form of treatment for a large OKC to minimize the cyst size and to limit the extent of surgery. The main advantage of the conservative treatment is the preservation of bone structure, soft tissue and teeth associated OKC. These procedures are less traumatic for the patient, eliminating medication and hospitalization expenses, and in most cases, avoid the need to accomplish reconstruction through grafts or extensive reconstructions.

In this case report, 37-year-old female patient who applied to our clinic with trismus and pericoronitis because of the random occurrence of odontogenic keratocyst, were examined. At the beginning of treatment, marsupialization was performed to minimize the cyst size and then the cyst was enucleated completely. The surface area of the cyst was calculated using the Image J computer programme to determine how much it had decreased.

Keywords: Decompression, mandible, marsupialization, odontogenic keratocyst, surface area.
UNERUPTED TWO SUPERNUMERARY PRIMARY MOLAR TEETH IN THE ANTERIOR REGION OF THE MAXILLA: AN UNUSUAL CASE REPORT

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Introduction: A supernumerary or hyperdontia tooth is one that is additional to the normal series and can be found in the entire dental arch region. They are common in the permanent than in the primary dentition. When the supernumerary teeth remains embedded, it may cause disturbance to developing teeth and also the erupted supernumerary tooth may cause aesthetic, functional and some others problems particularly if it is occurred in the maxillary incisors region. In this case, non-symptomatic primary supernumerary molar teeth with mucosal impaction in the incisors region of the maxilla in a male patient is presented with an unusual aspect.

Case Report: A 10-year-old male patient attended to our clinic by his general dentist because of the abnormal view of the anterior region of the maxilla in the panoramic radiography and with delayed eruption of the upper central teeth. His medical history was not problematic. The clinical and radiological investigation was revealed an unusual view of the anterior maxillary region which included tooth like lesions which delayed in eruption of the permanent central teeth. The surgical extraction was carried out and the histopathological study revealed an amazing result that the tooth-like structures were normal and well organised resembling the primary molar teeth.

Discussion: Supernumerary teeth are among the most common dental anomalies affecting the primary and permanent dentition. The purpose of this study was to report a case diagnosed with primary supernumerary molar teeth in the anterior region of the maxilla. As far as we know from the literature, there have been no reported cases of primary supernumerary molar teeth occurred in the incisors region of the maxilla. The clinicians must be aware of like these cases, taking early panoramic radiography from the patient to interfere with suitable treatment option.

Keywords: Incisor abnormalities, oral surgery, primary molar, supernumerary tooth.
KISSING MOLARS: A RARE TWO CASES SERIES

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Introduction: The term ‘kissing molars’, first described in 1973, refers to explain for impaction of mandibular second and third molars within the single follicular space in opposite direction of the each other roots, and occlusal surfaces contacting each other. In the literature multiple “rosetting” of molars had been associated with mucopolysaccharidosis (MPS).

Case 1: 13-year-old female patient reported to our clinic with complaint missing right mandibular molar teeth. She had hypercholesterolemia and MPS disorders. The results of clinical and radiologic examination were determined; in the lower right jaw of the patient, there was an radiographic image which was described as ‘kissing molars’ in the literature concerning position of 6 and 7 numbers of the teeth. The surgeon extracted the first molar surgically and in a same time the orthodontist bonded a bracket for eruption of the second molar with orthodontic traction. The patient is still under orthodontic consolidation treatment.

Case 2: 50-year-old male patient was referred to our clinic with impacted molars of the jaws without first molar of the upper jaw. His medical history was not problematic. The clinical and radiological investigation was revealed an unusual impaction of the molars without first molars of the maxilla, particularly left mandibular first and second molars were impacted which were described as ‘kissing molars’ in the literature. Surgical and orthodontic treatments was suggested to the patient, however, he wanted to treat his jaws later because of the social and economic reasons.

Discussion: Kissing molars are extremely rare condition. The phenomenon of ‘kissing molars’ or ‘rosette formation’ is not well reported. Therefore, it may be in relation with other features as MPS or in isolation as a solitary feature. As a result, these findings must prompt the clinicians to perform further research with especially MPS to establish definitive rule

Keywords: Kissing molars, mucopolysaccharidosis.
USING ANKAFERD BLOOD STOPPER (ABS) DURING ORAL SURGERY IN A PATIENT WITH GOLDENHAR SYNDROME


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Goldenhar syndrome is a rare, presumably inherited condition that has a multifactorial etiopathology that results in disturbances of blastogenesis. The syndrome is characterized by the presence of dermal epibulbar tumors, periauricular appendices, malformed ears, and vertebral anomalies, with occasional occurrence of cardiac, visceral, or central nervous system anomalies. In this case report, multiple tooth extraction and Ankaferd blood stopper application in a 25-year-old male patient with Goldenhar syndrome is presented. After extractions, Ankaferd blood stopper (ABS) application in a compressed sponge and direct application of ABS were made in order to control accusive hemorrhage. ABS has demonstrated potential for being an effective haemostatic agent for the treatment of excessive bleeding following dental surgery in our patient with hemorrhagic diathesis.

Keywords: Ankaferd, goldenhar syndrome.

NASAL TOOTH: A CASE REPORT

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Introduction: Single or multiple teeth in the nasal cavity may originate from an aberration of the regular dentition or can be supernumerary. Supernumerary teeth that erupt idiopathically into the nasal cavity form a separate entity.
Aim: The aim of this report is to present a supernumerer tooth in the right nasal cavity.
Case: We present a 16 year-old male patient in which eruption of a supernumerary tooth into the right nasal cavity.
Discussion: Knowledge of such an anomaly is of paramount importance to maxillofacial surgeons and radiologists for identification of such rarities encountered during invasive or non-invasive procedures.
Conclusion: In conclusion supernumerary nasal teeth should be included as differential diagnosis when intranasal masses are identified clinically or radiographically.

Keywords: Nasal tooth, supernumerary teeth.
CLOSING OF A RECURRENT SOFT PALATAL FISTULA BY Z-PLASTY AND HARD PALATAL PLATE IN THE CLEFT PALATE PATIENT


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Cleft palates rank among the most frequent congenital malformations. The cause of this dysplasia is thought to be multifactorial with a genetical component in 15–30% of all cases. We treated a 20-year-old man with recurrent soft palate fistula. Intraoral examination of the patient revealed that a residual palatal defect of 10 × 5 mm was on the very beginning of the soft palate after the junction of hard and soft palate. Patient had set of problems like pharynx regurgitation of fluids and hypernasal voice. Relevant dental history revealed that he had previous surgical treatments for closing of his hard and soft palate clefts at the age of 1, 12 and 19 year-old. He reported that his soft palate opening occurred again after 20 days following his last operation. His medical history revealed no contraindication for surgical treatment. Soft palate residual defect was repaired by Z-plasty incision technique under local anesthesia, and immediately after surgery protective palatal plate was applied for 10 days. After 10 days, his sutures were removed, and it was not observed any recurrence on the surgical site. His 30th day recall appointment revealed that there was also not any recurrence on the surgical site. Patient follow-up is still continuing. Fistula is the commonest complication associated with cleft palate surgery. The incidence of fistula after primary cleft palatoplasty varies between 8 and 30%, depending on the severity of the cleft defect, and the type of palatoplasty used for primary closure of the defect. Surgical treatment and using protective palatal plate plays a very important role in complete rehabilitation of recurrent soft palatal fistula patients.

Keywords: Hard palatal plate, recurrent soft palatal fistula, Z-plasty.

SURGICAL RADIOFREQUENCY(RF) ABLATION OF GIANT CELL GRANULOMA


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Giant cell granuloma (GCG) was classified by the World Health Organization in 2005 as a rarely aggressive idiopathic benign intraosseous lesion that occurs almost exclusively in the jaws. It occurs most frequently in young women (aged <30 y). In this report, 52-year-old woman came to our department with a swelling on the left side of the face. In radiological examination, an osteolytic and expansive neof ormation was showed which was spreading up from mandibula posterior region to premolar teeth apex. After an intraoral incisional biopsy the patient underwent surgical excision of the neof ormation by radiofrequency ablation. Ankaferd blood stopper was used for hemostasis and wound healing. No recurrence were seen a follow-up at 6 months. RF technic works with a high temperature and it brings on reducing the hemorrhage. Radiofrequency (RF) technic was used to be more controlled and conservative and used Ankaferd blood stoper for focal points of hemorrhage.

Keywords: Ankaferd, giant cell, radiofrequency.
DENTIGEROUS CYSTS TREATED WITH MARSUPIALIZATION


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Dentigerous cysts are benign odontogenic cysts that are associated with the crowns of permanent teeth. Ten patients (2 males and 5 females) between the ages of 12 and 54 with biopsy-proven DC (5 mandibular and 2 maxillary) measuring between 2 and 8 cm were treated by marsupialization consisting of excision of the overlying mucosa and the opening of a 1-cm window into the cystic cavity and, where possible, suturing of the cyst lining to the oral mucosa. The cavities were kept open either by vigorous use of a home syringe by the patient or by suturing into place the flange and short length of a nasopharyngeal airway. Once the cyst had largely filled in, histologic material was taken from the base of the residual depression and studied by light microscopy and bcl-2 expression. In all cases, the histologic material obtained after marsupialization showed normal epithelium only, with no signs of cystic remnants, daughter cysts, or budding of the basal layer of the epithelium. At initial biopsy, bcl-2 was expressed in the keratocyst lining, but not in the histologic material obtained after marsupialization. Follow-up time ranged from a minimum of 1 years to a maximum of 2.5 years.

Keywords: Dentigerous cyst, marsupialization.

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AUTOTRANSPLANTATION OF AN IMPACTED CANINE REPLACING A DECIDUOUS CANINE: A CASE REPORT

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The second most frequently impacted teeth after the wisdom teeth are the upper canines. The guidance theory proposes that the canine erupts along the root of the lateral incisor, which serves as a guide, and if the root of the lateral incisor is absent or malformed, the canine will not erupt. The genetic theory points to genetic factors as a primary origin of palatally displaced maxillary canines and includes other possibly associated dental anomalies, such as missing or small lateral incisors. Various therapeutic options are available to patients affected by this anomaly: 1. Extraction of the impacted tooth and morphological improvement in the primary canine crown when it persists, 2. Extraction of the impacted tooth and primary canine followed by orthodontic space closure, 3. Orthodontic alignment of the displaced tooth after its surgical exposure, 4. Implant-supported single tooth prosthesis as the primary care after primary canine and impacted tooth extraction, or when autotransplantation fails, 5. Autotransplantation after orthodontic pretreatment for space opening. Autogenous tooth transplantation or dental autotransplantation is defined as the transplantation of impacted or erupted teeth from their original sites into extraction sockets or surgically prepared recipient sites in the same individual. The aim of this report is to present a patient whom was an 45-year-old female, undergoing autotransplantation of an impacted maxilla canine replacing a maxilla deciduous canine and the 1.5-year follow-up, with no sign of active inflammatory resorption or a periapical lesion. In addition, there was no sign of ankylosis.

Keywords: Autotransplantation, impaction, maxillary canine, surgical techniques.
THE EFFECTS OF A NEW LOCAL HAEMOSTATIC AGENT IN SECONDARY EPITHELIALIZATION: REPORT OF TWO CASES

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Introduction: The process of secondary epithelialization (SE) is sometimes used therapeutically by oral and maxillofacial surgeons during certain preprosthetic surgical procedures in which an area of oral mucosa is denuded of epithelium and then left to epithelialize by adjacent epithelium creeping over the wound bed. Ankaferd blood stopper (ABS) is being used as a new haemostatic agent. It comprises a standardized mixture of the plants. Each of these plants has some effect on the endotetium, blood cells, angiogenesis, cellular proliferation, vascular dynamics and cell mediators.

Aim: The aim of this report is to present the benefits of ABS usage in surgical operation of a large epulis fissuratum and a peripheral giant cell granuloma in two patients and also discuss the SE effects of ABS in healing process.

Case: We present a 62 year old woman with epulis fissuratum in her right anterior maxillary region and a 48 year old woman with peripheral giant cell granuloma in her anterior mandibular region. After the total excision of the lesions, ABS was applied to the defect area and the wound healing was obtained by SE. After six weeks healing period, prosthodontic treatment was completed.

Discussion: During these surgical excisions bleeding can be a undesirable problem both for the surgeon and the patient.

Conclusion: ABS can be used successfully in the management of heamorrhage and SE. Usage of ABS provides a better and faster healing process.

Keywords: Haemostatic agent, secondary epithelialization.

POSSIBLE MANDIBLE FRACTURE BECAUSE OF DEEP IMPACTED TEETH


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Intra- or postoperative mandibular fracture is one of the major complications associated with difficult surgical extractions in the mandible. There are several predisposing factors for simultaneous or late mandibular fractures. In this case report, a 34-year -old female patient with a vertical impacted molar in close relationship with mandibular canal and mandibular base in the left posterior mandible is presented. The aim of the present article is to report and discuss a case in which a miniplate was applied according to prevent late fractures of the deep impacted teeth.

Keywords: Deep impacted teeth, mandible fracture, miniplate.
REGENERATED OSTEONECROSIS OF THE JAWS: CLINICAL DATA OF FIVE CASES

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Bisphosphonates (BPs) are compounds used in the treatment of various metabolic and malignant bone diseases. Recently, there have been reports of osteonecrosis of the jaws (ONJ) in cancer patients receiving concomitant anticancer therapy (chemotherapy, steroid therapy, or head and neck radiotherapy) and an intravenous (IV). The purpose of this article is to present data from 5 cases receiving IV BP and have regenerated zoledronic acid–induced ONJ. Cases: This report consist of 5 individuals (2 females and 3 males) receiving IV BP and having exposed bone in their jaws concerning to BPs. The data presented in this report concern complications from commonly prescribed drug in the treatment of metastatic bone diseases. The number of patients complaining from bisphosphonate induced osteonecrosis of the jaws is growing due to improved recognition, further reporting, and more patients receiving these drugs over longer periods of time. However, treatment of cancer patients receiving BPs and who have exposed bone in their jaws remains to be a difficult problem to solve for the clinicians. ONJ appears to be associated with the intra-venous use of BPs. Dental professionals should be aware of this potentially serious complication in oral surgery patients receiving long-term treatment with BPs.

Keywords: Bisphosphonates, osteonecrosis of the jaws, regeneration.

CAUSES OF LOSS OF PERMANENT TEETH AMONG PATIENTS ATTENDING TO ORAL AND MAXILLOFACIAL SURGERY CLINIC IN SIVAS

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The aim of this study was to examine the reasons for dental extraction and to determine the pattern of tooth loss in patients seeking care at the Cumhuriyet University, Dental School, Oral Surgery clinic in Sivas, and to evaluate whether they differ by educational levels. Data pertaining to dental extractions of 1324 patients were analyzed during one year period. The cause for extraction was classified as follows: (1) caries, (2) periodontal disease, (3) orthodontic purposes, (4) prosthodontic purposes, (5) trauma, (6) pericoronitis, (7) impactions, (8) patient request, and (9) other reasons. Data were analyzed with nonparametric X2 test. The patients mean age was 37.84 years old and males were 44.7% while females formed 55.3%. A total of 1714 permanent teeth were extracted of which 814 (47.5%) teeth were extracted due to caries, 451 (26.6%) due to periodontal disease, 111 (6.5%) pericoronitis, 70 (4.1%) patient request. There was an increase in teeth extracted due to periodontal reasons with age (p<0.05). A trend was observed for patients with less than high school education to have more tooth extraction (p<0.05). Mandibular molar teeth were the most frequently extracted tooth. The results of the present study suggest that caries and periodontal disease are the major causes of tooth extraction in the study population. As a conclusion, efforts must be made to improve the dental health awareness to reduce the morbidity associated with the two preventable causes of tooth loss.

Keywords: Tooth extraction reasons.
TRANSMIGRATION OF IMPACTED MANDIBULAR CANINES — REPORT OF 5 CASES


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**Introduction:** It is an even rarer phenomenon when such an impacted mandibular canine migrates to the other side of the mandible, crossing the mandibular midline. This abnormal movement of a tooth has been termed “transmigration”. We report 5 cases of impacted mandibular canine transmigration with a panoramic radiographic examination.

**Case Reports:** Case 1: A 18-year-old female was referred to Oral and Maxillofacial Surgery Department our faculty for removal of impacted third molars. The panoramic radiograph revealed the right mandibular canine was impacted horizontally and its crown crossed the midline. Case 2: A 29-year-old male was referred to our clinic with a complaint of left maxillary first molar. Radiographic examination showed that there was left impacted and transmigrated horizontally mandibular canine. Case 3: The third case was 21-year-old female patient suffering from her maxillary right canine. The panoramic radiograph revealed the right mandibular canine was impacted horizontally and its crown crossed the midline. Case 4: A 14-year-old female patient was referred to our clinic for extracted primary teeth. Panoramic radiography revealed that the mandibular right permanent canine was transmigrated across the midline to the left side with its crown’s direction orientated the left canine. Case 5: A 37-year-old female patient was referred to our clinic for extracted maxillary left third molar. The panoramic radiograph indicated the mandibular right canine was impacted mesioangularly with part of the crown crossing the midline.

**Discussion:** Transmigration of an unerupted tooth is generally a unilateral phenomenon. The incidence of transmigrated canines is much higher in females than in males. The left canine is more involved than the right canine. However, in four of five patients in the present report the right canines were involved.

**Conclusion:** The transmigration of a mandibular canine is a rare phenomenon.

**Keywords:** Canine, impacted, mandible, transmigration.
THE PAST, PRESENT AND FUTURE OF THE ORAL AND MAXILLOFACIAL SURGERY IN THE WORLD AND TÜRKİYE


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Oral and maxillofacial surgery is a scientific surgical specialty treating the craniomaxillofacial complex: the teeth, mouth, jaws, face, skull, as well as associated structures. Recently on the world, oral and maxillofacial surgery is a surgical specialization which is required a career of dentistry or medicine profession or both of them dependent on various scopes of training programs related to social, economical and cultural conditions of the countries. In the international area, oral and maxillofacial surgery specialization which qualifications, responsibilities and the practice fields have been determined by legal arrangements and the scope of training programs, unfortunately, the recent status and the future of oral and maxillofacial surgery in our country is still uncertain, in spite of various valuable researches and studies performed on this area till today. In our country, postgraduate "PhD" program of "Mouth, Teeth and Jaw Diseases and Surgery" offered by Dental Faculties seems to have the most similar scope of training program with oral and maxillofacial surgery specialization training programs, considering the surgical interventions, clinical and experimental studies performed by the contributors of this program. In conclusion, although, there are some adverse effects like the differences in the education and training of oral and maxillofacial surgeons throughout the world, the specialty have had a great progress until today. There is clearly a need to reduce the differences between oral and maxillofacial surgeons’ education and training standards throughout the world. However, it is neither possible nor practical to expect the confirmation of a single standard education program by everyone.

Keywords: Oral and maxillofacial surgery, speciality.
DENTIGEROUS CYST IN THE MAXILLARY SINUS: CASE REPORT

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Introduction: Dentigerous cyst occurs association with unerupted tooth, commonly mandibular third molars. It is most commonly seen between 10-30 year old. It is usually painless unless secondary infection occurs.

Case: 10-year-old girl was referred to the Department of Oral and Maxillofacial Surgery, Faculty of Dentistry, Cukurova University for the assessment of swelling on her left face. In clinical examination, expansion on the left side of the face was determined. In radiological examination with Cone Beam Computerized Tomography (CBCT), radiolucent lesion filling the maxillary sinus which includes impacted left permanent canine and premolar teeth was detected. The lesion was enucleated and impacted teeth were removed under general anesthesia. After histopathological investigation, diagnosis was dentigerous cyst.

Discussion: Most of dentigerous cysts are small aseptomatic lesions, but some lesions may cause bone expansion and reach large size. Especially, treatment of large dentigerous cysts which completely fill maxillary sinus is difficult and this kind of cysts have high recurrence rate. Serious complications like orbital damage or oro-antral fistula may occur. In the present case, peri- or post-operative complications were not seen.

Conclusion: Using 3-dimentional images like CBCT in treatment of large sized cysts in maxilla reduce complications and recurrence rate.

Keywords: Cone beam computed tomography, dentigerous cyst, maxilla.
A MASSIVE CUTANEOUS FISTULA SECONDARY TO AN ODONTOGENIC
SUBMANDIBULAR ABCESS IN AN IMMUNOCOMPROMISED PATIENT: A
CASE REPORT

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Introduction: Odontogenic sinus tracts are the most common cause of a chronically
draining, fixed, nodulocystic papule of the face and neck and pose often a diagnostic
challenge. A delay in correctly diagnosing these types of lesions can result in
ineffective and inappropriate treatment.
Case Report: The case of a 64-year-old immunocompromised female patient with
a huge cutaneous draining tract is here presented. According to the patient history,
she underwent a kidney transplantation 17 years before. The source of the infection
was identified, the infection surgically and medically resolved, hyperbaric oxygen
therapy was applied and skin closure was performed.
Discussion: Dentists may encounter patients who have an odontogenic infection
that drains onto the skin. These are often seen after the patient has been given many
courses of antibiotics, been seen by various professionals, and received various
treatments. The attending clinician must look carefully for a potential odontogenic
infection; chronicity, lasting for weeks, months, and even years and the recognition of
the lesion as a sinus tract are keys to making the correct diagnosis. Diagnostic errors
can result in multiple surgical excisions and biopsies, long-term antibiotic therapy,
and even radiation therapy.
Conclusion: All patients with sinus or fistulous tracts in the head and neck region
should be properly assessed and evaluated for proper diagnosis and treatment, to
prevent the recurrence and chronicity of these lesions. Medical practitioners from
other disciplines should be aware that dental extraoral sinus tracts can be confused
with skin lesions.

Keywords: Cutaneous, odontogenic, sinus.

AUTOTRANSPLANTATION OF AN IMPACTED MAXILLARY CANINE TO ITS
NORMAL POSITION

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A transplantation in which donor and recipient are the same individual has
been termed autogenous transplantation, autoplastic transplantation, or
autotransplantation. The most common reasons for tooth transplantation include the
replacement of a missing first molar, the transplantation of impacted canines to their
normal positions in the arch, and the transplantation of premolars in areas of missing
teeth, especially in the anterior area of the mouth. The purpose of this report was to
describe a patient undergoing autotransplantation of an impacted maxillary canine to
its normal position after persisted canine extraction and 3 years follow-up.

Keywords: Autotransplantation, impacted tooth, maxillary canine.
MULTIPLE UNERUPTED MANDIBULAR PERMANENT MOLAR TEETH: A CASE REPORT


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The multiple impacted teeth is a rare condition that frequently associated with syndromes, metabolic disorders or trauma. A 48-year old male patient was referred to our clinic, with complaining of pain on right retromolar region while chewing. The patient had facial asymmetry and restricted mouth opening. Clinical and radiographic examination revealed the impaction of mandibular first, second and third molar and an abnormal condyle and coronoid process. All of the impacted teeth were extracted. Though the patient refused other treatment procedures no surgical intervention was performed for the asymmetry and restricted mouth opening. Six months clinic and radiographic follow ups were satisfactory.

Keywords: Impaction, permanent teeth.

REPAIR OF ORONASAL FISTULA OCCURED AFTER THE ENUCLEATION OF MAXILLARY MIDLINE ODONTOGENIC KERATOCYST

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The odontogenic keratocyst (OKC) is a cystic lesion of odontogenic origin, which is classified as a developmental cyst developed from the dental lamina. OKCs are frequently seen in the mandible, and are rare in the maxilla. This report describes a case of OKC which occurred in the midline of the anterior maxilla in a 67 year old man, mimicking the nasopalatine duct cyst. The intraoral examination revealed a palatal expansion at the midline of the edentulous maxilla. Radiographic features showed a nasopalatine cyst. The cyst was totally enucleated and parakeratotic type of OKC histopathological results revealed. An oronasal fistula occurred two weeks after the surgery. The vestibule rotated flap was failed to close the fistula. The fistula was successfully repaired with a rotational palatal flap in the third operation.

Keywords: Odontogenic keratocyst, oronasal fistula, palatal flap.
OPTIMAL TIMING OF A SINGLE DOSE OF LOCAL SIMVASTATIN INJECTION TO RAT MANDIBULAR DEFECTS

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Local simvastatin delivery to bone defects has been shown to enhance bone formation in rodents and it has been suggested that drug delivery to bone defect after the initial anabolic response would potentially increase the quantity of drug binding to the target area, leading to a greater effect with the same dose. The aim of this study was to optimize single dose local simvastatin delivery to bolster the defect healing by determining the optimal timing of delivery. A single dose of 0.5 mg simvastatin was injected postoperatively to the critical sized rat mandibular bone defects either on the 1st, 7th or 14th days transdermally. The defects were left alone in the control group. The animals were killed on the postoperative 21st day and the defect area was evaluated by microscopy, microradiography and peripheral quantitative computerized tomography. Microscopic and microradiographic evaluation showed limited new bone formation next to host bone in all experimental groups. The mean density of the defect areas were 185.8 Hounsfield unit, 205.3 Hounsfield unit, 235.4 Hounsfield unit and 194.0 Hounsfield unit respectively at the control, 1st, 7th and the 14th day groups. The difference was not statistically significant (p>0.05). A single injection of 0.5 mg simvastatin showed limited bone formation at the defect side although delivered after the initial anabolic response and couldn’t enhance bone formation significantly at the critical sized bone defects for the investigated delivery times.

Keywords: Bone defect healing, local delivery, simvastatin, statin.

DISPLACEMENT OF THE UPPER THIRD MOLAR INTO THE MAXILLARY SINUS: CASE REPORT


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Introduction: There are numerous complications of removing impacted teeth such as infection, alveolar osteitis, dysesthesia, hemorrhage and anesthetic complications. Displacement of a tooth or a tooth fragment into important adjacent anatomic sites is frequently mentioned in oral and maxillofacial surgery textbooks, but rarely reported.

Case: Forty-years-old female patient was referred to the Department of Oral and Maxillofacial Surgery, Faculty of Dentistry, Çukurova University for the assessment of maxillary left third molar which was accidentally displaced into the maxillary sinus. After clinical and radiographical examination with cone beam computerized tomography, the localization of the tooth was detected. Caldwell-Luc procedure was performed and the tooth was removed under local anesthesia.

Discussion: Displacement of maxillary third molars into the maxillary sinus is usually associated with an incorrect extraction technique, decreased visibility during surgical removal or close relation between upper third molar and maxillary sinus. Clinical/radiological examinations and perioperative attention is important to prevent this complication.

Keywords: Displacement, maxillary sinus, third molar surgery.
BISPHOSPHONATES RELATED OSTEONECROSIS OF THE JAWS (BRONJ): CLINICAL CASE SERIES

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**Objective**: The aim of this study was to evaluate the clinical presentation, risk factors, prognosis, radiologic and histopathologic features and treatment alternatives of the BRONJ.

**Materials and methods**: The study was performed on 16 patients who were referred to Ankara University, Department of Oral and Maxillofacial Surgery with multiple BRONJ.

**Results**: A total of 16 patients (2 men and 14 women, mean age 59.4 years) were diagnosed with BRONJ. Of the 16 patients, 14 had received bisphosphonate therapy for cancer and 2 for osteoporosis. BRONJ lesions were determined more frequently in the posterior region of mandible and maxilla. Of the 16 patients, 12 had developed BRONJ after dentoalveolar procedures, and 4 had developed it spontaneously. The follow-up range was 1 to 26 months (average 8.9). The mean interval to development of BRONJ was shorter in the patients with cancer receiving intravenous bisphosphonates than in the patients with osteoporosis receiving oral bisphosphonates (26.2 versus 73.2 months, P = .02). The initial management of BRONJ was nonsurgical including antibiotic administration, oral wash with oxygenic water and hyperbaric oxygen therapy, and also debridement performed at subsequent visits, if needed.

**Conclusion**: The results of our case series have shown that nonsurgical treatment can be successful in treating BRONJ.

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HORIZONTAL SINUS SEPTA: AN UNUSUAL CASE REPORT

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**Introduction**: Maxillary sinus septa are barriers of cortical bone that arise from the floor or from the walls of the sinus and may even divide the sinus into two or more cavities. The presence of septa, located at the inner surface of the maxillary sinus, increases the risk of sinus membrane perforation during sinus elevation for dental implant surgery.

**Case report**: In this case report, horizontal sinus septa which seen in posterior maxilla in a 52 year old female patient represented. The patient was treated by sinus lifting of the two compartments which was divided by septa and grafting with demineralised bone matrix and using 2 dental implants.

**Discussion**: The morphology, location and possibility of septa discussed. Literature explained that maxillary sinus septa which oriented in the horizontal or sagittal orientation is a rare condition. The percentage of this condition is low. The anatomical structures of the maxillary sinus is fundamental to maxillofacial surgery. Detailed knowledge about location and morphology of sinus septa is clinically important to reduce the rate of complications when maxillary sinus surgery, i.e. sinus floor elevation for dental implant surgery, is carried out.

**Keywords**: Dental implant, sinus lifting, sinus septa.
RECONSTRUCTION OF THE ENUCLEATED CYST CAVITY BY RE-ADAPTING THE REMOVED CORTICAL BONE PLATE: A TECHNICAL NOTE


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Objective: Reconstruction of the adjacent bone secondary to ablation of the cysts and tumours of the maxillofacial region remains still challenging. Despite the increasing number of procedures proposed for the reconstruction of the bone following enucleations, an ideal reconstruction technique is not described so far. The current study reports the reconstruction of the enucleated cyst cavity by re-adapting the removed cortical bone plate.

Material and Method: Dentigerous cyst of a 17 year old patient was enucleated by accessing the cyst cavity via removal of the adjacent bone cortex. Following the complete enucleation of the lesion, the cortical bone plate was re-adapted with two titanium miniplates to its original position.

Results: The postoperative radiographic examination on the 6th month, revealed a favorable adaptation and an uneventful healing of the re-adapted bone cortex.

Conclusions: With the knowledge of the current note, it can be concluded that the reconstruction of the enucleated cyst cavity by re-adapting the removed cortical bone plate is a safe, simple and low costing procedure.

Keywords: Enucleation, cortical bone plate, cyst, reconstruction.
TREATMENT APPROACHES OF TRAUMATICALLY INTRUDED MAXILLARY INCISORS: TWO CASE REPORTS

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Introduction: Dentoalveolar trauma is a very common event in children and represents an emergency situation. Intrusion is defined as the axial dislodgement of the tooth into its socket. It is considered one of the most severe types of dental trauma because it causes crushing of periodontal ligament fibers, neurovascular bundle and alveolar bone. Intrusive luxation is a common type of dental injury in the primary dentition; however in the permanent dentition, it is an uncommon event, corresponding to 0.3–1.9% of all traumatic injuries. Various treatment approaches are currently practised. The treatment of choice for traumatically intruded teeth was to combine orthodontic repositioning and endodontic treatment.

These case reports describe emergency treatment of a 10-year-old male patient, with three completely intruded mature permanent maxillary incisors and a 6-year-old male patient, with a completely intruded primary maxillary incisor towards nose base because of trauma.

Case Report: Case 1: A 10-year-old male was referred to Oral and Maxillofacial Surgery Department our faculty with a history maxillary anterior region. Intraoral and radiographic examination revealed maxillary right central and lateral incisors and maxillary left central incisor were completely intruded in alveolar socket. As an emergency treatment, the occlusion of these teeth has been established with surgical operation and fixed. After 3 weeks fixation, right maxillary incisor had failed due to bad oral hygiene.

Case 2: A 6-year-old male patient was referred to our clinic with a complaint of trauma. While maxillary left primary central was completely intruded, left primary lateral was partially intruded in alveolar socket. These teeth were extracted by surgical operation.

Conclusions: In first case, though restorative treatment had been due to the lack of oral hygiene, one of teeth had failed. In second case, urgently surgical treatment had been made.

Keywords: Treatment approaches, traumatically intruded, maxillary incisors.
DOUBLE TRANSMIGRATION: A RARE CASE REPORT

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Introduction: Mandibular canine impaction is less frequent and the incidence was reported to be 20 times lower than that for maxillary canines. It is an even rarer phenomenon when such an impacted mandibular canine migrates to the other side of the mandible, crossing the mandibular midline. This abnormal movement of a tooth has been termed "Transmigration" or movement of an unerupted tooth across the midline without the influence of any pathological entity. Most of the time, such a migrated tooth remains impacted; however, it may subsequently sometimes erupt at its new position. The mandibular permanent lateral incisor is the most frequently displaced mandibular tooth. Its abnormal eruptive path is usually a result of the presence of a physical obstacle, such as a supernumerary tooth, an odontoma, severe crowding, or retained deciduous teeth. Displacement from the normal path of eruption may occur, however, for unknown reasons, with no clear relationship between the displaced permanent tooth and the usually cited etiologic factors.

Case Report: A 48-year-old male was referred to Oral and Maxillofacial Surgery Department of our faculty with a complaint of the sensitive teeth in the anterior mandibular region. Intraoral and radiographic examination revealed that both left mandibular permanent canine and lateral incisor were impacted and migrated mesially crossing the mandibular midline and these teeth were associated with odontoma. The patient was normal in height, weight, and physical development for his age. Patient’s medical history showed that there were no previous systemic disease, family history of congenital anomalies and prior trauma to the teeth or jaws.

Conclusion: Transmigration of the mandibular canine or lateral incisor is an unusual event. Multiple transmigrations are also even rarer. Here is presented a patient with transmigration of a mandibular canine and the adjacent lateral incisor, together with an odontoma.

Keywords: Double, mandible, transmigration, canine and lateral teeth.
ERUPTED MESIODENS: A REPORT OF FOUR CASES

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Introduction: Mesiodens are a type of supernumerary teeth that appear most frequently, between 47% and 67% of cases, with a pre-valence of 0.15-1.9% in general population. Mesiodens is usually found to be impacted, with a conical crown and a single root, and often in an inverted position. It is diagnosed through clinical and radiographic examinations using maxillary anterior periapical and panoramic radiography.

Case Report: All of the patients were normal in height, weight, and physical development for their age. Their health was very good and their medical history showed that there were no previous systemic disease, family history of congenital anomalies and prior trauma to the teeth or jaws.
Case 1: A 32-year-old male was referred to Oral and Maxillofacial Surgery Department our faculty with a complaint of the sensitive teeth in the right posterior mandibular region. Intraoral and radiographic examination revealed a mesiodens (conical form) that erupted between two central incisors.
Case 2: A 26-year-old female patient was referred to our clinic with a complaint of his mandibular third molars. Intraoral and radiographic examination showed that there was a mesiodens that erupted between two central incisors. It was extracted because of patients demand. It was about 1.5 cm. and tuberculate type.
Case 3: The third case was 5-year-old male patient suffering from her mesiodens. Clinical and radiographic examination demonstrated an erupted mesiodens on palatine. It was 17.5 mm. and conical form.
Case 4: Also the fourth was 7-year-old male patient suffering from her mesiodens. Clinical and radiographic examination demonstrated an erupted mesiodens between permanent central incisors. It was extracted and showed conical form.

Conclusions: Mesiodentes can significantly alter both occlusion and appearance by altering the eruption path and the position of the permanent incisors.

Keywords: Mesiodens, supernumerary teeth, erupted.

EFFECT OF HYPERBARIC OXYGEN THERAPY ON SEQUESTRATION OF MANDIBULAR OSTEOMYELITIS: A CASE REPORT

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Post-radiation osteomyelitis or osteoradionecrosis has been described as a disease process with a common denominator of devitalization and devascularization of bone by irradiation. Risk factors include preradiation tooth extraction, poor oral hygiene, fixation method after mandibulectomy, and total radiation dose. The protective management of mandibular post-radiation osteomyelitis includes prevention with a systemic approach to dental management before radiation therapy. Primary management of post-radiation osteomyelitis lesions includes conservative modalities such as saline irrigations, antibiotics during infectious episodes, topically applied antiseptics, gentle sequestrectomy and removal of visibly loosened bone elements as well as treatment with hyperbaric oxygen (HBO). The aim of this case report is to present sequestrectomy of mandibular osteomyelitis that occurred due to radiation therapy.

Keywords: Hyperbaric oxygen, osteoradionecrosis, sequestrectomy.
AN ENAMEL PEARL ON MAXILLARY WISDOM TOOTH: A RARE CASE REPORT

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Introduction: Enamel pearl, also known as enamel drop, enamel nodule, and enamaloma, is a small globule of enamel 1 to 3 mm in diameter that occurs on the roots of molars. The diagnosis of the enamel pearl is relatively easy because of its characteristic clinical appearance of a well circumscribed globule and radiographic density that is equivalent to enamel. It is found in about 3% of the population, probably formed by Hertwig's epithelial root sheath before the epithelium loses its enamel-forming potential. The most common site for enamel pearls is at the cementoenamel junction of multirooted teeth. They are most commonly mesial or distal on maxillary teeth and buccal or lingual on mandibular teeth. Enamel pearls most often occur singly and can be composed exclusively of enamel.

Case Report: A 34-year-old female patient was referred to the Department of Oral and Maxillofacial Surgery, Faculty of Dentistry, Cumhuriyet University, Sivas for a complaint of the sensitive teeth in the right posterior mandibular region. On the radiographic and intraoral examination revealed both mandibular and maxillary wisdom teeth were unerupted. Firstly, we extracted right maxillary wisdom tooth and determined enamel pearl at the cementoenamel junction of multirooted tooth. The enamel pearl was not discernible on the radiograph.

Conclusions: Enamel pearl is one of a group of ectopic enamel structures occurs circular mass of calcified material that can be found on the roots of deciduous and permanent teeth. It is relatively rare and usually incidentally recognized during routine radiography.

Keywords: Enameloma, enamel pearl, wisdom tooth.

DETERMINATION FOR IMPACTED TEETH; THE ROLE OF 3D IMAGING

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Surgical procedures for unerupted and supernumerary teeth form a main topic in oral surgery and pediatric dentistry. Except many of the unerupted wisdom teeth it is critical to determine whether to extract these teeth or to apply orthodontic appliances to help their eruption. It is important to evaluate the position of the supernumerary and impacted teeth, relation with important anatomical structures (inferior alveolar nerve, maxillary sinus, nasal cavity), roots of adjacent teeth and germs of permanent teeth. Also for unerupted teeth it is essential to determine if the tooth can be erupted to its normal position with orthodontic forces or not. Besides these considerations for pediatric patients the treatment becomes even more complicated due to limited surgical time as a result of difficulties in cooperation. CBCT imaging gives so much important information to eliminate or reduces these difficulties mentioned above. In this presentation we aimed to reveal the importance of using CBCT in orthodontics and pediatric dentistry for the diagnosis and surgical planning of impacted teeth.
IMPACTED THIRD MOLAR WITH RADICULAR CYST IN THE MAXILLARY SINUS

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A 31 years old woman came to our hospital for halitosis and bad smelling flow from nose. On the panoramic radiography we diagnosed large radiolucent area in the maxillary sinus and impacted the wisdom teeth. Under anesthesia wisdom tooth was extracted and the radicular cyst was enucleated at the Başkent Üniversitesi Kemal Reisoğlu Alanya Uygulama ve Araştırma Hastanesi.

THE EVALUATION OF CONSCIOUS SEDATION COMPLICATIONS IN ORAL AND MAXILLOFACIAL SURGERY CLINIC


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Conscious sedation, has been a popular method of providing sedation to patients during procedures since the 1980s. Conscious Sedation is a drug-induced depression of consciousness during which patients respond purposefully to verbal commands. Conscious sedation is useful in the management of patients during unpleasant procedures under local anaesthesia. Recent advances in conscious sedation include controlling drugs by methods other than subjective measurements by the operator. These include patient controlled and effect-site controlled sedation. The aim of this study is to evaluate complications related to concious sedation in oral and maxillofacial surgery procedure .We defined discomfort of patient that inhibits completing surgical procedure , anxiety , nausea and vomiting, transient oxygen desaturation,bradycardia as complications.We retrospectively studied 337 patients underwent oral surgery procedures via concious sedation in Karadeniz technical university Oral and Maxillofacial Surgery Clinic. Consious sedation is applied by administering IV Midazolam and Fentanyl. We saw complications about consious sedation in 11 patients of total 337 .The complication rate was % 3.26. The low complication rate and advances of concious sedation such as patient and surgeon comfort makes concious sedation prevalent in oral surgical procedures.
RARE NASOPALATINE DUCT CYST WITH ODONTOMA: A CASE REPORT


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The nasopalatine duct cyst (NPDC) is the most common of the non-odontogenic cyst of the jaws. This cysts are usually central or unilateral with no prevalence of side occurrence. The NPDC is the most frequent developmental, nonodontogenic cyst of the jaws. This cyst originates from epithelial remnants from the nasopalatine duct. The cells could be activated spontaneously during life, or are eventually stimulated by the irritating action of various agents (infection, etc.). Generally, patients present without clinical signs and symptoms. Therefore, the tentative diagnosis “nasopalatine duct cyst” is often based on a coincidental radiological finding on a routine panoramic view or occlusal radiograph. In occlusal radiographs, the lesion appears as a rounded or “heart-shape” radiolucent lesion involving the nasopalatine duct. The definite diagnosis should be based on clinical, radiological and above all histopathologic findings. The therapy of nasopalatine duct cysts consists of an enucleation of the cystic tissue, only in rare cases a marsupialization needs to be performed. This report describes the appearance and treatment of a rare case of nasopalatine duct cyst with odontoma.

Keywords: Nasopalatine foramen, nasopalatine duct cyst, Non-odontogenic cyst.

PP SESSION - PATHOLOGY

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IS SIMPLE BONE CYSTS ASSOCIATED WITH LONG TERM CORTICOSTEROID THERAPY?

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Wegener’s granulomatosis (WG) is a form of vasculitis that affects the lungs, kidneys and other organs. Rheumatoid arthritis (RA) is a chronic, systemic inflammatory disorder that may affect many tissues and organs, but principally attacks synovial joints. Treatment of WG and RA with oral cyclophosphamide and corticosteroids has decreased morbidity and improved survival, but side effects from long-term immunosuppressive therapy are common and sometimes serious. In the presented case report mandibular simple bone cysts in a 56 year-old woman with medical history of WG and RA and long term immunosuppression with corticosteroid for 20 years is described and possibility of simple bone cyst development due to long term corticosteroid usage is discussed.

Keywords: Corticosteroid, rheumatoid arthritis, simple bone cysts, wegener’s granulomatosis.
INTRAOSSEOUS CARCINOMA ARISING FROM AN ODONTOGENIC CYST: CASE REPORT

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Carcinoma arising from an odontogenic cyst is not common. Squamous cell
carcinoma is the most seen carcinoma arising from odontogenic cysts. Among the
odontogenic cysts, malignant transformation of the keratocyst and dentigerous cyst
is higher. Malignant transformation of radicular cyst as intraosseous carcinoma is
extremely uncommon. In this case report, intraosseous carcinoma arising from an
odontogenic cyst in a 26 year old male patient is presented. This case report clearly
demonstrates the importance of clinician awareness of the malignant potential of
apparently innocuous cystic lesions.

Keywords: Carcinoma, odontogenic cyst.

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PINDBORG TUMOR OF THE MANDIBLE: A CASE REPORT

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Pindborg tumor is a benign but locally aggressive epithelial calcified odontogenic
tumor usually found in the posterior mandibular bone, and it shares many features
with the ameloblastoma. Microscopically, however, there is no resemblance to the
ameloblastoma. There is a predilection for the molar-ramus region, although any site
may be affected. The lesions may be unilocular or multilocular. In this poster, clinical,
radiological findings and surgical treatment of the patient with Pindborg tumor were
presented.

Keywords: Calcifying odontogenic epithelial tumor, mandible, odontogenic tumor,
pindborg tumor.
AMELOBLASTIC CARCINOMA ARISING IN AN IMPACTED LOWER MOLAR

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Introduction: Ameloblastic carcinoma (AC) is a rare malignant odontogenic tumor that combines the histologic features of ameloblastoma with cytologic atypia regardless of whether it has metastasized. Because of the rarity of large clinical series and long-term follow-up, there is no consensus on treatment of ameloblastic carcinoma. Based on follow-up information from the present review, radical surgical resection appears to be the treatment of choice.

Purpose: The purpose of this report is to present a rare case of AC arising from an impacted lower molar in a 19-year-old man.

Case Report: A 19-year-old male patient was admitted to our Department due to pain and right lower impacted molar. Panoramic and computed tomography examination revealed small honeycomb-like osteolytic changes extending up to the condylar neck region unilaterally. The main treatment included partial mandibulectomy and classic radiotherapy protocol. A total mandibulectomy with bilateral modified neck dissection was followed by primary reconstruction with a single free vascularised fibula flap. The postoperative course was uneventful.

Discussion: Ameloblastic carcinoma is a rare malignant odontogenic tumor. Its clinical behavior is still unclear, so it is unknown how frequently it occurs. The clinical symptoms of ameloblastic carcinoma are more aggressive than ameloblastoma. Features distinct from ameloblastoma are swelling with rapid growth, perforation of the cortex, pain, and paresthesia. When ameloblastic carcinomas arise de novo, diagnosis is not as simple because differential diagnosis must include primary intraosseous squamous cell carcinoma, metastatic carcinoma to the jaw, central high-grade mucoepidermoid carcinoma.

Conclusion: Long-term followup is mandatory to detect the late recurrence or metastasis. Radical surgical resection, strict screening for and early detection of metastatic lesions, and periodic follow-up after surgery are needed to improve patient prognosis.

Keywords: Ameloblastic carcinoma, impacted lower molar.
CALCIFYING ODONTOGENIC CYST: A CASE REPORT

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The calcifying odontogenic cyst which was described by Gorlin is a rare benign, slow growing developmental odontogenic cyst. It is characterized by keratinizing ghost cells and its calcification but there is no particular specificity for age, sex or site. Because of this lesion shows both cystic or tumor behavior, this lesion has been considered to be a borderline lesion between cyst and tumor. In this case report we will present a female patient 30 years old with the calcifying odontogenic cyst in maxillary anterior area and its management and we will discuss the treatment alternatives.

Keywords: Gorlin cyst, odontogenic cyst, odontogenic tumors.

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FABRICATING OF AN INDIVIDUAL MANDIBULAR ADVANCEMENT DEVICE FOR MODERATE OBSTRUCTIVE SLEEP APNEA PATIENT WITH GOUT DISEASE

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*** Van Military Hospital, Chest Disease, Van
**** Van Military Hospital, Orthodontics, Van
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Obstructive sleep apnea (OSA) is a life-threatening disorder characterized by repetitive cessation of respiration, due to partial or complete obstruction of upper airways during sleep. There are mainly four treatment alternatives for OSA patients, as behavioral, medical, surgical and dental approaches. There is great variability in the efficacy and compliance of these therapies. Recent years, dental appliances, especially mandibular advancement devices (MAD) have been emerged as a new influential approach for OSA therapy. In the English literature, there is no report about MAD application for OSA patient along with Gout disease. In this case, it is aimed to share the fabricating procedure, and the prognosis of an individual MAD for a moderate obstructive sleep apnea patient with Gout disease.

Keywords: Gout disease, mandibular advancement devices, obstructive sleep apnea.
PERIPHERAL GIANT CELL GRANULOMA FOLLOWING TOOTH EXTRACTION: A CASE REPORT


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Peripheral giant cell granuloma is encountered as localized nodular enlargements of the gingiva. Peripheral giant cell granuloma is a reactive exophitic lesion, which affects both sexes with a slight predilection for women and occurs in all age groups but most frequently in young to middle-aged adults. The mandibular antero-lateral region being the area most often involved. It appears as a result of local irritating factors such as tooth extraction, poor dental restorations, food impaction, ill-fitting dentures, plaque, calculus. The aim of this article is to discuss a peripheral giant cell granuloma case. A 42-year-old man was referred with a chief complaint of gingival swelling and bleeding. Intraoral examination revealed a gingival enlargement. It was extended left maxilla posterior region. According to clinical and radiological evaluation, the patient was diagnosed that lesion has caused after tooth extraction. In our case, it was presented a peripheral giant cell granuloma of the left maxilla posterior region of 42 years old male patient caused by bad oral hygiene and tooth extraction and was discussed its etiology, clinical, radiological and therapeutic features in the light of the current literature. Giant cell granuloma is a rare disease of the head and neck region. Surgery is the traditional and still most accepted treatment for GCGs, but it is important to bear in mind that, today, modern surgery can be performed in association with new approaches, in an attempt to avoid recurrence. Indeed, the present case, in which we used a combined approach with local injection of corticosteroids, after surgery, supports this opinion.

Keywords: Giant cell, granuloma.

PERIPHERAL GIANT CELL GRANULOMA: A RETROSPECTIVE STUDY

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* The peripheral giant cell granuloma is a reactive, benign lesion occurring in the oral cavity usually as a result of local irritating factors. Although its etiology is not exactly clear, trauma is considered as a major reason. The aim of this study was to present the clinical features of 62 cases of peripheral giant cell granuloma of the jaws.

Keywords: Age, gender, localization, peripheral giant cell granuloma, retrospective.
A RECURRENT HUGE PYOGENIC GRANULOMA: A CASE REPORT


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Pyogenic granuloma (lobuler capillar hemangioma) is a relatively common benign vascular lesion of the skin and mucosa whose exact cause is unknown. A 10 year old male patient referred to our department of OMS with complaint of halitosis and bleeding of lesion. After clinical examination, incisional biopsy was performed and biopsy was sent for the histopathological examination. The lesion had the diagnosis of 'pyogenic granuloma' after histopathological examination. In this case report, clinical characteristics and treatment of a huge recurrent pyogenic granuloma is presented.

Keywords: Biopsy, pyogenic granuloma.

PRIMARY INTRAOSSEOUS ADENOID CYSTIC CARCINOMA: A RARE CASE REPORT

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Introduction: Adenoid cystic carcinoma (ACC) represents 7.5% of all carcinomas and 4% of both benign and malignant salivary gland tumors. It most commonly affects adults, with a peak incidence in the 4th to 6th decades. Very rarely, ACC may arise centrally within the jaw bones, usually in the posterior mandible of adults, causing pain due to perineural invasion.

Purpose: Primary Intraosseous adenoid cystic carcinoma (PIACC) is an extremely rare malignant epithelial tumor with only 26 cases reported previously. We aimed to present a rare case of IACC in a 60-year-old man.

Case Report: A male patient aged 60 years presented at Ege University, Faculty of Dentistry, Department of Oral and Maxillofacial Surgery for evaluation of a radioluent lesion on the left maxillary premolar region. Intraoral examination revealed a nodular swelling on gingiva between left upper premolar and molar. A panoramic radiography revealed a radioluent area between upper left premolar and molar, with irregular margins. The preliminary diagnosis was adenocystic carcinoma with intraosseous origin. The patient refused recommended treatment consisted of wide surgical excision and reconstruction with an autogenous bone graft. Only routine radiotherapy was used for 33 days.

Discussion: Pathogenesis of central salivary gland tumors is still unknown, but it is considered they originate from epithelial linings of cysts, particularly dentigerous cysts, or more probably from ectopic salivary gland tissue. Clinically and radiographically they may mimic odontogenic cysts and tumors, and final diagnosis can be obtained only after histopathological examination. The treatment of choice for adenoid cystic carcinoma is wide surgical excision and postoperative radiation therapy for the best chance of long-term survival.

Conclusion: The prognosis of PIACC is poor. Long-term follow-up is mandatory to rule out regional and distant metastases in patients with ACC, especially in the unoperated cases.

Keywords: Primary intraosseous , adenoid, cystic carcinoma.
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BUCCAL SOFT TISSUE LIPOMA: A CASE REPORT


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Lipomas are benign mesenchymal neoplasms composed of mature adipocytes, usually surrounded by a thin fibrous capsule. The most common location for lipomas in the maxillofacial region has been reported as the buccal mucosa and the peak incidence age for lipoma is 40 years and above. In the oral cavity, the most common sites are the cheek, tongue, palate, mandible and lip where lipomas occur as sessile or encapsulated masses. The present study reports a case of a 58-year-old man presented with a painless mass in the right vestibule that had been present for 6 months. The lesion was covered by normal-appearing mucosa, seemed to be circumscribed. Under local anesthesia excision of the lesion was performed. Histopathological examination was consistence with the diagnosis of a lipoma.

Keywords: Lipoma, mature adipocytes, painless mass.

PP-123

SQUAMOUS CELL CARCINOMA ARISING IN A MAXILLARY RESIDUAL CYST

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Introduction: Surgical treatment of odontogenic cysts by cystectomy or cystostomy is a frequent procedure in oral and maxillofacial surgery. Although rare, the epithelial lining of an odontogenic cyst may undergo malignant transformation. Among the odontogenic cysts, malignant transformation of the keratocyst and dentigerous cyst is high. Although squamous cell carcinoma (SCC) arising in various developmental and inflammatory odontogenic cysts has been well established, to the best of the authors’ knowledge, there has been few reports in the English literature on the development of SCC from residual cysts.

Purpose: The aim of this report is to present a rare case of SCC arising from a maxillary residual cyst in a 54-year-old man with a discussion of the critical elements needed for accurate diagnosis and treatment.

Case Report: 54-year-old man presented complaining of a recurrent swelling in the right maxillary molar region. Because of the large size of the lesion, incisional biopsy was performed and the specimen was submitted for microscopic examination. The tissue obtained in the second surgery showed an invasive squamous cell carcinoma. Histologic examination revealed a poorly differentiated SCC in the cyst lining without invasion through the connective tissue wall. The main treatment included partial maxillectomy and classic radiotherapy protocol.

Discussion: Etiology of SCC is still unclear. Chronic inflammation has been considered as a predisposing factor to malignant transformation. Carcinoma frequently invades the surrounding marrow spaces at a relatively early stage. Resection, and sometime irradiation, are then performed as additional treatment. Prolonged healing of the operative site is sometimes an indication of malignancy. Microscopic investigation should be mandatory.

Conclusion: The development of SCC from residual cysts is rare but should always be considered in the differential diagnosis.

Keywords: Squamous cell carcinoma, maxillary residual cyst.
A RARE LOCATION OF LOW-GRADE MUCOEPIDERMOID CARCINOMA IN ORAL CAVITY: A CASE REPORT

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Mucoepidermoid carcinoma (MEC) is the most common malignancy of the major and minor salivary glands, comprising 34% of salivary gland malignancies. In 2005, WHO classification only mucoepidermoid carcinomas are graded by a point score system, as low-grade type (well differentiated), intermediate or high-grade type (poorly differentiated). Low-grade mucoepidermoid carcinoma (LG MEC) is a rare tumor which can occur in the minor salivary glands as intraoral lesion, more frequently in the palate and very rarely in the retromolar region and floor of the mouth. In this presentation, we reported a case of LG MEC in the left retromolar region and floor of the mouth of 39-year-old female patient.

Keywords: Low-grade, minor salivary gland, mucoepidermoid carcinoma.

NASOPALATINE DUCT CYST: A CASE REPORT


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The nasopalatine duct cyst (NPDC) is the most common of the non-odontogenic cyst of the jaws. This cysts are usually central or unilateral with no prevalence of side occurrence. The NPDC is the most frequent developmental, nonodontogenic cyst of the jaws. This cyst originates from epithelial remnants from the nasopalatine duct. The cells could be activated spontaneously during life, or are eventually stimulated by the irritating action of various agents (infection, etc.). Generally, patients present without clinical signs and symptoms. Therefore, the tentative diagnosis “nasopalatine duct cyst” is often based on a coincidental radiological finding on a routine panoramic view or occlusal radiograph. In occlusal radiographs, the lesion appears as a rounded or “heart-shape” radiolucent lesion involving the nasopalatine duct. The definite diagnosis should be based on clinical, radiological and above all histopathologic findings. The therapy of nasopalatine duct cysts consists of an enucleation of the cystic tissue, only in rare cases a marsupialization needs to be performed. This report describes the appearance and treatment of a case of nasopalatine duct cyst.

Keywords: Nasopalatine foramen, nasopalatine duct cyst, Non-odontogenic cyst.
MULTIPLE MAXILLARY CYST: A CASE REPORT


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Odontogenic cysts that develop aseptomatically may lead to significant bone resorption and manifest invasion to adjacent anatomical regions like maxillary sinus. In this case report; two large odontogenic cysts are presented in a young patient. Twenty-four year old female patient referred to Oral and Maxillofacial Surgery Department of Dental Faculty of Ankara University with a complaint of pain and bilateral swelling in the premolar and incisor regions of maxilla. Radiographic examination revealed radiolusent lesions associated with the apices of teeth extending to the maxillary sinuses. Parathormone level of the patient was higher than the normal. The patient was operated under general anaesthesia and both cysts were enucleated and the associated teeth were extracted and apikal resection was applied to the teeth. Histopathological evaluation revealed the lesions to be inflammatory lesion. The patient healed uneventfully and then the patient was sent to an endocrinology service in order to be evaluated for the parathormone level to eliminate the risk of future cyst development and the patient is still on control.

Keywords: Inflammatory lesion, maxillary cyst, parathormone.

PP-127

HUGE OSTEOMA OF THE CONDYLAR PROCESS


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Osteoma is a benign osteogenic lesion characterized by proliferation of compact and cancellous bone. It is an uncommon lesion that occurs mainly in the bones of craniofacial complex. Osteomas of the condylar process can be classified into two types; those that proliferate and cause replacement of the condyle, and those that form pedunculated or osseous mass on the condyle or neck of the mandible. In this case report, a 45 year old male patient with a chief complaint of facial asymmetry and dislocation of the mandible as a result of a huge osteoma in the left mandiblar condyle is presented.

Keywords: Condylar process, osteoma.
LARGE PERIPHERAL OSTEOMA OF THE MANDIBLE: A CASE REPORT

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Osteomas are benign, slow-growing osteogenic tumors commonly occurring in the cranio-maxillofacial bones. Osteomas of the jaws are characterized by the proliferation of compact and/or cancellous bone. It can be central, peripheral, or of an extraskeletal type. Peripheral type arises from the periosteum and rarely seen in the mandible. Lingual surface and lower border of the body are the most common location of these lesions. Clinically peripheral osteoma appears as unilateral, well-circumscribed, mushroom-like mass ranging from 10 to 40 mm in diameter. They are usually asymptomatic and can be discovered in routine clinical and radiographic examination. Osteomas are often noted in the sixth decade, but reports range from 16 to 74 years of age.

In this case report, we presented a large solitary peripheral osteoma located on the buccal surface of the left posterior mandible and causing facial deformity in a 37-year-old woman.

Keywords: Computed tomography, mandible, peripheral osteoma.
TREATMENT OF EXPERIMENTAL OSTEOMYELITIS WITH TIGECYCLINE-IMPREGNATED CALCIUM HYDROXYAPATITE

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Objective: The aim of this study was to investigate whether a tigecycline-impregnated hydroxyapatite has a potential effect in the treatment of chronic osteomyelitis induced experimentally in the rat tibia.

Materials and Methods: Following the surgical creation of defects in the left tibias of 25 adult Wistar albino rats, five randomly selected subjects were injected with a sterile saline solution only (sham group, n=5). Osteomyelitis was induced with Methicillin-resistant Staphylococcus aureus (MRSA) in all remaining rats. After 3 weeks, rats with evidence of osteomyelitis were treated with either debridement alone (n=7), or with debridement plus calcium hydroxyapatite (n=7), or with debridement plus calcium hydroxyapatite loaded with tigecycline (total dose 50 mg), or else were not treated at all [negative control group, (n=6)]. Rats in the sham and negative control groups were sacrificed 21 days post-induction surgery, and rats in the treatment groups were sacrificed after 42 days. Tibias removed on these days were analyzed histopathologically, radiographically, and microbiologically.

Results: Compared histopathologically with the negative control group, infection was eradicated at a level of 37%, 45%, and 71% in groups administered debridement alone, or with hydroxyapatite, hydroxyapatite loaded with tigecycline, respectively. Osteomyelitis-induced rats had the highest bacteria count (5x10^5). Debridement treatment reduced the bacterial count by 1.6 x 10^4. Treated with calcium hydroxyapatite and calcium hydroxyapatite loaded with tigecycline in rats decreased (3.5 x 10^2, 1.2 x 10^2, respectively).

Conclusion: According to our findings, calcium hydroxyapatite containing tigecycline has potential utility as a pharmacological agent in the treatment of chronic osteomyelitis.

Keywords: Experimental osteomyelitis, methicillin-resistant staphylococcus aureus, rat model, tigecycline.
COMPARING OF CLINICAL APPEARANCES OF ORAL LICHEN PLANUS AND ORAL LICHEN STOMATITIS LESIONS WITH A CANCER RESEARCH DEVICE VISUALLY ENHANCED LESION SCOPE - VELSCOPE


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Introduction: Despite decades of working on new devices which will simplify and activate the clinical examination of suspicious lesions biopsy remains as gold standard. One of the devices aiming this objective is direct multi-spectral fluorescent visualization. It has been used to identify cancer and precancer in the oral cavity of high-risk patients. It can facilitate the identification of clinically occult regions with high grade dysplasia and/or cancer. There are lots of published papers and research articles reporting risk of malign transformation associated with oral lichen planus lesions while there is no published report of malign lesion sourced from a oral lichenoid lesion (related to drug, dental materials etc.) although they share almost the same clinical and histopathological features. This study aims to compare the clinical appearances of patients with oral lichen planus (OLP) and oral lichen stomatitis (OLS) with a cancer research device visually enhanced lesion scope – velscope.

Materials and methods: 22 patients with OLP and patients with 20 OLS associated with dental materials were involved in the present study. They were diagnosed by evaluating of their clinical view, histopathological investigation, allergy test to dental materials and anamnesis, all together. The subtype, localization, severity degree of the lesions, the allergic material, degree of allergy and presence of skin involvement were noted. All lesions were photographed using with and out velscope.

Results: No statistical significant differences were found between the study groups in regards of gender, age, severity and types of the lesions. Clinical appearances of the lesions of patients with oral OLP and OLS achieved with Velscope revealed no difference between the groups.

Conclusion: The identical appearances of the lesions of both type were expected as their ‘normally’ seen clinical and histopathological appearances were similar.

Keywords: Oral lichen planus, oral lichen stomatitis, velscope.

SYSTEMIC LUPUS ERYTHEMATOSUS IN CHILDHOOD: A CASE REPORT

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Systemic Lupus Erythematous (SLE) is a serious multisystem disease with a variety of cutaneous and oral manifestations. There is an increase in the activity of the B lymphocytes of the immune system in conjunction with abnormal function of the T lymphocytes. Although genetic factors probably play a role in the pathogenesis of SLE, the precise cause is unknown. Oral lesions of SLE develop in 5% to 25% of these patients. The lesions usually affect the palate, buccal mucosa and gingivae. Sometimes they appear as lichenoid areas, but they may also look nonspecific or even somewhat granulomatous. Other oral complaints such as xerostomia, stomatodynia, candidiasis, periodontal disease and dysgeusia have been described but the direct association of these problems with SLE remains to be proven. Intraoral and extraoral findings, SLE associated oral mucosal lesions, cephalometric analysis results of dental and skeletal characteristics of 14 year-old female child with SLE were presented in this report.

Keywords: Childhood, systemic lupus erythematosus.
DESMOPLASTIC FIBROMA OF THE MANDIBLE: A CASE REPORT


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Desmoplastic fibroma is a rare benign, slowly progressive fibrous soft tissue tumor that ranges 1-20 cm in size. The tumor occurs in all ages, predominantly in the upper part of the body. The tumor often infiltrates the subcutis; less often it invades the fascia and skeletal muscle or causes bone erosions. A 32-year-old man came to our clinic with desmoplastic fibroma located on the left side of the mandible. And dental removal was confirmed. Incisional biopsy was performed. The results of the biopsy showed us benign fibroosseous lesion and desmoplastic fibroma. In radiologic examination radiolucent, well circumscribed lesion were showed. According to the surgery planning the mandible were resected and fixed iliac crest graft with 2,4 reconstruction plates. Desmoplastic fibroma (DF) is a benign but locally aggressive neoplasm of the bones.

Keywords: Desmoplastic fibroma, mandible resection.

STAFNE BONE CAVITY: A RETROSPECTIVE STUDY OF 3 CASES

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Stafne cyst was first reported by Stafne in 1942 to describe the bone cavity in the angle of the mandible. However, Stafne cyst is not a true cyst and some articles have suggested that the Stafne bony cavity be renamed. Stafne bone defects (SBCs) are asymptomatic lingual bone depressions of the lower jaw that are frequently caused by soft tissue inclusion. The common variant of SBCs exists at the third molar region of the mandible below the inferior dental canal and has been mostly diagnosed incidentally during routine radiographic examination. The objective of this study is to describe the clinical and radiological characteristics of 3 patients with Stafne bone cavity. 46-year-old female, 57-year-old and 63-year-old male patients were referred to our clinic for routine dental examination and prosthetic management. In each case the orthopantomographic study revealed a rounded or ovoid radiolucent image. Posterior area of the mandible, having no apparent relationship with the teeth and either below or superimposed on the inferior dental canal. Sialography of the submandibular gland was carried out on three patients and two computerized tomography were performed. A diagnosis of SBC was made and no further investigations or therapy were initiated.

Keywords: CT imaging, mandibular bone depression, sialography, stafne bone cavity.
ACANTHOMATOUS AMELOBLASTOMA: A CASE REPORT

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Ameloblastoma is an uncommon odontogenic tumour of the mandible and maxilla. It occurs with equal frequency in both sexes and has its peak incidence in the 3rd through 5th decades of life. Most ameloblastomas occur in the ramus and posterior body of the mandible (80% of cases) but can occur anywhere in the mandible or maxilla. Patients usually present with a slow-growing, painless mass. Although usually considered benign, ameloblastoma can demonstrate locally aggressive behavior. Clinically ameloblastomas may be relatively asymptomatic and can be detected incidentally on radiological imaging. Treatment of ameloblastoma range from simple enucleation and curettage to en bloc resection. Treatment of ameloblastoma depends on the extent of tumor infiltration into surrounding bone. Excision of a relatively contained ameloblastoma could involve localized removal of the lesion with wide margins; if the lesion is highly infiltrative and extensive, en bloc resection would be performed. Recurrent ameloblastomas may be more widespread and destructive than the original lesion. We present the treatment of a large acanthomatous type ameloblastoma with an immediate reconstruction plate placement following the resection, occurred in the right posterior region of the corpus mandibula of a 48 year old male patient.

Keywords: Acanthomatous type, ameloblastoma, mandibula.

EXTRAMEDULLARY PLASMACYTOMA: A CASE REPORT

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Plasmacytoma is a unifocal, monoclonal, neoplastic proliferation of plasma cells that usually arises within bone. It may present as one of three distinct clinical entities: multiple myeloma (MM), solitary plasmacytoma of bone and extramedullary plasmacytoma (EMP). EMP is characterized by a neoplastic proliferation of plasma cells in the soft tissue. It usually occurs in the upper respiratory tract, particularly the nasal cavity and posterior oropharynx. A rare case of an extramedullary plasmacytoma affecting the posterior mandibula in a 60 years old male patient was presented in this report.

Keywords: Extramedullary plasmacytoma, treatment.
A GIANT ORAL IRRITATION FIBROMA TREATED WITH 810 NM DIODE LASER

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The oral irritation fibroma is a benign proliferated tissue which occurs as a response to a local irritation. A case of an asymptomatic giant oral irritation fibroma in the upper jaw treated with 810 nm diode laser is presented and the advantages of its use compared to those of conventional scalpel and other types of laser surgery were discussed.

Keywords: Diode laser, oral giant fibroma.

UNSATISFACTORY TREATMENT OF A CASE WITH LAUGIER-HUNZIKER SYNDROME WITH ER:YAG LASER

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The Laugier-Hunziker syndrome (LHS) is a rare benign condition which is characterized by acquired melanotic pigmentation of the lips and buccal mucosa that occurs with no systemic condition. In this brief report we present a case of oral hyperpigmentation diagnosed as LHS. After 4 sessions of laser treatment (Photona Fidelis Plus III, Slovenia; wavelength of 2940nm with settings of 120mJ energy, 10Hz frequency, 1000µs pulse duration with 0.8mm of spot size), the healing response was without any problems and in 2 weeks time 100% depigmentation was observed. There were no early post-op complication. After 2 months later recurrence was observed slightly. After 6 months of follow up, the pigmentation was observed at an area close to half of the initial situation.

Keywords: Depigmentation, Er:YAG laser, Laugier-Hunziker syndrome.
THE USE OF SURGICAL DIODE LASER IN ORAL HEMANGIOMA: A CASE REPORT


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Hemangiomas are benign lesions of blood vessels or vascular elements. Two main forms of hemangioma recognized: capillary and cavernous. The capillary form presents as a flat area consisting of numerous small capillaries. Cavernous hemangioma appears as an elevated lesion of a deep red color, and consists of large dilated sinuses filled with blood. Hemangiomas are especially common on the tongue, lips, jugal mucous membrane, and gums. A number of treatment modalities have been proposed for hemangioma treatment. The purpose of the study was to report the case of oral hemangioma in a patient who was treated by diode laser. The use of GaAs high-potency diode laser in the treatment of hemangioma reduced bleeding during surgery, with a consequent reduction in operating time, and promoted rapid postoperative hemostasis. It is safe for use on large lesions and easy to manage, and postoperative problems, including potential scarring, and discomfort are minimal.

Keywords: Diode laser, hemangioma.

CEMENTO-OSTIFYING FIBROMA IN THE MANDIBLE: A CASE REPORT

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Introduction: Cemento-ossifying fibroma (COF) is an uncommon, benign fibro-osseous lesion, which may occur at any age but is most often diagnosed in adulthood, typically during the third or fourth decades of life.

Case Report: A 56-year-old female was referred to the clinics of Oral and Maxillofacial Surgery department with a chief complaint with a about 1.5 cm size, painless gingival growth associated canine tooth in the right mandible. Clinical examination revealed a solitary swelling visible intraorally. Radiologically, there was not any radiolucency in the mandibular region, but there was a cystic radiolucency lesion in the periapical area of the right mandibular lateral tooth. His health was very good and his medical history showed that there were no previous systemic disease and prior trauma to the area. An excisional biopsy was performed with the patient under local anesthesia resecting the attached gingival. The histology was consistent with COF of the oral cavity. The right mandibular lateral tooth was performed root canal treatment. The patient was followed up one year and it was observed not recurrence that gingival tissue was very healthy.

Discussion: COF is a relatively uncommon condition which may occur at any age but is most often diagnosed in adulthood, typically during the third or fourth decades of life, with female more frequently affected than male. Clinically, the lesion is usually asymptomatic but can lead to an asymmetric swelling with noticeable deformity.

Conclusion: The majority of COF lesions present as a well-defined, mixed lesion radiographically. Most COFs can be treated by conservative surgical excision without subsequent recurrence.

Keywords: Cemento-ossifying fibroma, mandible, surgical treatment.
AMELOBLASTIC FIBRO-ODONTOMA: CASE REPORT

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Introduction: The ameloblastic fibro-odontoma is a rare, slow growing, benign, mixed odontogenic tumor. Some authors believe that this pathology is not a true neoplasm but a hamartoma. This lesion is commonly asymptomatic and discovered serendipitously during routine radiographic examination. It occurs more frequently in the mandibular molar region and at the first or second decade of the lifespan. Radiographically, ameloblastic fibro-odontoma demonstrates a well circumscribed mixed radiopaque and radiolucent mass. The lesion is generally treated by enucleation. Recurrence is rare.

Case: We report an ameloblastic fibro-odontoma that was noticed incidentally in the mandibular posterior region of a 16 years old girl. In this report, clinical, radiographical, histopathologic features of the lesion and contemporary treatment options are discussed as well.

Discussion: The differential diagnosis of a mixed radiolucent/radiopaque lesion in the jaws of a child or adolescent includes calcifying odontogenic cyst, adenomatoid odontogenic tumor, compound odontoma and ameloblastic fibro-odontoma.

Keywords: Ameloblastic fibro-odontoma, benign tumor, mixed odontogenic tumor.

MUCAPEPIDERMOID CARCINOMA IN THE CHEEK: CASE REPORT

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Introduction: The mucoepidermoid carcinoma is the most commonly diagnosed malignant tumor of the salivary glands. This kind of tumor constitutes %10 of all salivary gland tumors and %35 of salivary gland malignancies. Men and women are equally affected and the highest incidence occurs in the third to fifth decades of life. The tumor most commonly involves the parotid gland and minor salivary glands, submandibular and sublingual glands respectively. The mucoepidermoid carcinoma consists of both epidermal and mucous cells, and it is classified as high grade or low grade, depending on the ratio of epidermal cells to mucous cells. The low-grade type has a higher ratio and is less aggressive.

Case: Fifty-five years-old female patient was referred to the Department of Oral and Maxillofacial Surgery, Faculty of Dentistry, Cukurova University with a swelling in her left cheek. After clinical and radiographic examination, an excisional biopsy was performed. The histopathological diagnosis was low-grade mucoepidermoid carcinoma of a minor salivary gland.

Discussion: Although, the mucoepidermoid carcinoma is the most commonly seen malignant lesion of the salivary glands, it rarely involves the cheek. The prognosis and treatment approach depend on the stage and the grade of the tumor.

Keywords: Case report, minor salivary gland, mucoepidermoid carcinoma, oral pathology.
ORAL VERRUCA VULGARIS

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Aim: The objective of this case report is to present clinical features and treatment modalities of oral verruca vulgaris.  
Case Report: A 11-year-old boy referred to the Military Hospital, Diyarbakir with a complaint of two growths in the buccal mucosa without any lesions elsewhere in the body. Biopsy was taken for histopathologic examination revealed oral verruca vulgaris.  
Discussion: Verruca vulgaris (known as the common wart) is benign growth caused by the human papilloma virus (HPV). It can occur on epithelialized surface of the body, as circumscribed, elevated, firm nodule with a papillomatous surface. Treatment modality include surgery, cryotherapy, salicylic acid, cimetidine, cantharidin, carbondioxide laser, heat, no treatment, and tape occlusion.

Keywords: Cryotherapy, verruca vulgaris, wart.
RADIOLOGICAL FEATURES OF THE CASE OF AN ODONTOGENIC MYXOFIBROMA

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Introduction: Odotogenic myxofibroma (also called odontogenic myxoma) is an benign tumor which presents 3% to 6% of all odontogenic tumors. It is thought to arise from the mesencyhmal portion of the odontogenic apparatus and is therefore classified as an odontogenic tumor. According to the WHO classification, multiple radiolucent areas of varying size, separated by straight or curved bony septa with poorly-defined borders are the radiologic charactereristics of the condition. However, the radiological descriptipons of the lesion remained conflicting so far. Here we report the case of a maxillary odontogenic myxoma in a 21 year old man, by discussing the radiologic features of the condition.

Case report: A 21 year old man was admitted to the Department of Dentistry at the Diyarbakir Military Hospital due to the mild swelling on his cheek. The panoramic, MRI and CT scans were obtained. The radiological examination revealed a multilocular well-defined radioopaque lesion with irregular borders, which causes jaw expansion and displacement of the upper third molar to the orbital floor. An incisional biopsy was performed and the provisional diagnosis of odontogenic fibromyxoma was rendered. The patient was admitted to the Department of the Oral and Maxillofacial Surgery at the Gülhane Military Medical Academy and with the collaboration of the Department of Otorhinolaryngology a hemimaxillectomy was performed.

Discussion: There are conflicting reports in the literature on the radiological features of the odontogenic fibromyxomas. However, the radiological features of the current case was interesting, due to the size of the lesion and the severe displacement of the adjacent upper third molar. Additionally, an other rare characteristic of the presented case is that the lesion was presenting a total radiopacity which is only repoted in 7,5% of odontogenic myxomas. As a conclusion, the odontogenic myxomas should be considered in the differential diagnosis of both.

Keywords: Myxofibroma, myxoma, odontogenic, radiological features.
ORAL METASTASIS OF THE MEDIASTINAL GERM CELL TUMOR (YOLK SAC)

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Yolk sac tumor is a rare malignant tumor of germ cell origin. It most commonly arises from the testes and ovaries in young adults but extragonadal sites of origin are reported in 10-15% of the cases. Yolk sac tumors are malignant, tend to recur locally and may present with widespread metastases at the time of diagnosis. Involvement of the head and neck is uncommon. Here, we present the case of a 23 years old man presenting with mandibular and adjacent gingival metastasis of mediastinal yolk sac tumor. Thus the patient has already undergone chemotherapy, no additional treatment was provided. In this case report, clinical and histopathological features of the oral metastases of yolk sac tumor were briefly discussed.

Keywords: Mandible, germ cell, metastasis, yolk sac.

ADENOMATOID ODONTOGENIC TUMOR OF THE MANDIBLE: REPORT OF A CASE

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Adenomatoid odontogenic tumor (AOT) is an uncommon, benign, slow-growing tumor which is usually located in the anterior region of maxilla without pain and represents 3% of all odontogenic tumors. AOT often causes expansion of surrounding bone and displacement of adjacent teeth. The tumor is usually associated with an unerupted teeth frequently canines or lateral incisors. Radiographically they usually appear unilocular and may contain calcifications. AOT frequently resemble other odontogenic lesions such as dentigerous cysts or ameloblastoma. Treatment is conservative and the prognosis is excellent. We presented a rare AOT occurred in the left canine-premolar region of the mandible causing painless-swelling and displacement of teeth.

Keywords: Adenomatoid odontogenic tumor, mandible.
PERIPHERAL GIANT CELL GRANULOMA: REPORT OF SIX CASES

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Introduction: The peripheral giant cell granuloma (PGCG) is a benign reactive exophytic lesion occurring on the gingiva and alveolar ridge originating from the periodontal or periodontal membrane usually as a result of local irritating factors such as tooth extraction, poor dental restorations, food impaction, ill-fitting dentures, plaque, and calculus. Clinically PGCG is a well-demarcated, dark red-purple focal mass on the gingiva with a sessile or pedunculated base. Histologically the lesion is a non-capsulated mass of tissue containing a large number of connective tissue cells and multinucleated giant cells in an architectural pattern of focal nodules of giant cells. A wide age range of patients can be affected with a slight female predilection.

Case Reports: Two male and four female patients referred to our clinic with well-demarcated, dark red-purple focal mass on the gingiva with a sessile or pedunculated base. The patients with PGCGs varied in age from 7 to 42 years. While three cases were seen in maxilla; the others were seen in mandible. Four cases were in anterior and two cases were in posterior region of the jaws. One of the PGCGs associated with dental implant and showed recurrence. Lesions were treated mainly by excisional biopsy with extensive curettage of the base of the lesion to avoid relapse. Histopathological examination revealed a large number of multinucleated giant cells.

Discussion: The high frequency of reactive focal overgrowth in the gingiva is likely to be a result of the irritant factors in the oral cavity in conjunction with the unique anatomy of the gingival attachment. The PGCG is unique to the gingival mucosa. In treatment local irritants that cause to lesion must be avoided.

Keywords: Giant cell granuloma, local irritants.

CHRONIC DIFFUSE SCLEROSING OSTEOMYELITIS IN MANDIBLE: A CASE REPORT


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Diffuse sclerosing osteomyelitis of the mandible is characterized by recurrent pain and swelling often associated with trismus. It is associated with organisms of low virulence. Its etiology is poorly defined. Bacterial infection has been suggested as a cause, but antimicrobial treatment is usually unsuccessful. Chronic periodontal disease, which appears to provide a portal of entry for bacteria, is important in the etiology and progression of diffuse sclerosing osteomyelitis. Carious non-vital teeth are less often implicated. This condition may be seen in any age, in either sex, and in any race, but it tends to occur most often in middle-aged black women. This paper describes a case of Chronic diffuse sclerosing osteomyelitis in an 20-year-old, in whom the condition arose following a first permanent molar that was in. The lesion remained unresolved for a period of over 12 years as a result of misdiagnosis, following a number of unsuccessful treatment attempts. Differential diagnosis of the lesion is crucial for planning the surgical treatment and the prognosis of the patient.

Keywords: Cortical expansion, mandible, osteomyelitis.
INCISIVE CANAL CYSTS: REPORT OF THREE CASES

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Introduction: Incisive canal cysts (ICCs) are the most common developmental, epithelial and non-odontogenic cysts of the maxilla, along with nasolabial cysts. Trauma or infection of the duct and mucous retention of adjacent minor salivary glands have been mentioned as possible etiologic factors. The lesion most likely represents a spontaneous cystic degeneration of remnants of the nasopalatine duct. It may occur at any age but most common seen in fourth to sixth decades of life with male predilection. Incisive canal cysts are almost three times more common in males than in females and show a predilection for Caucasian individuals.

Case report: Two male patients who were 28 and 37 years old referred to our clinic complaining of an uncomfortable feeling in anterior palatine region of the maxilla. On examination painful swelling, which was fluctuant, was confirmed in the midline of hard palate. The overlying mucosa appeared red in color. And a 32 years old female patient referred to our clinic for routine examination. After examination, panoramic film revealed a well-circumscribed ovoid radiolucent area that included the incisive canals. Related teeth were vital. After enucleations histological examination revealed that the cyst wall was lined by ciliated columnar and stratified squamous epithelium and parts of the epithelium were degenerated and desquamated. According to the findings, we diagnosed as incisive canal cyst.

Discussion: A thorough differential diagnosis must be established in order to avoid unnecessary treatments such as endodontic procedures in vital permanent upper central incisors. A correct tentative diagnosis should be based on positive dental vitality testing and negative percussion findings of the permanent upper central incisors, provided these teeth do not have pulp or periodontal problems. Radiological exploration is essential for diagnosing ICCs.

Keywords: Incisive canal, cyst, vital.
INFLAMMATORY MYOFIBROBLASTIC TUMOR IN THE ALVEOLAR MUCOSA: CASE REPORT

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Introduction: Inflammatory myofibroblastic tumor (IMT) is a distinctive lesion composed of myofibroblastic spindle shaped cells accompanied by inflammatory infiltrate that may arise in various organs. It is believed to be a non-neoplastic inflammatory condition, although this is still controversial.

Case: A 15-year-old woman admitted to the Department of Oral and Maxillofacial Surgery, Faculty of Dentistry, Cukurova University with a complaint of painless swelling on the left lingual alveolar mucosa of the premolar region with a two-week history of progressive growing. Intraoral examination revealed 2x1.5x2 cm pedunculated reddish lesion. There was not any radiographical finding. An excisional biopsy was performed under local anesthesia and postoperative histopathological examination confirmed the initial diagnosis of IMT. The postoperative course was unremarkable. The patient remained disease free at the time of her last follow-up, 2 years after surgery.

Discussion: Oral IMT is a very rare lesion which along with its nonspecific clinical appearance may pose difficulties to diagnosis and management. Its rapid growth rate may simulate a malignant disorder and therefore warrants a comprehensive histopathologic assessment a limited number of patients with oral IMT have been reported. In the oral mucosa, the most reported sites of occurrence are submandibular region, parotid duct, retromolar area, alveolar mucosa of the molar region, tongue, maxilla and the hard palate.

Conclusion: Management of IMT is complete surgical excision. Since IMT may present a low-grade malignancy, longer follow-up is needed.

Keywords: Alveolar mucosa, inflammatory myofibroblastic tumor, mandible.
CEMENTO-Osseous DYSPLASIAS OF THE JAWS

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Introduction: Cemento-osseous dysplasias are probably the most common fibro-osseous lesions encountered in clinical practice. They are a group of common benign lesions that occur in the tooth-bearing areas of the jaws and are presumed to arise from cells of the periodontal ligament. They are usually classified, depending on their extent and radiographic appearances, into three main groups: periapical (surrounds the periapical region of teeth), florid (sclerotic symmetrical masses) and focal (single lesion) cemental dysplasias. These lesions are most often detected as incidental findings during routine dental radiographic examinations. Except for florid cemento-osseous dysplasia, the cemento-osseous dysplasia lesions seldom expand the jaws and do not displace teeth and require no treatment. The pathogenesis of the cemento-osseous dysplasias remains unknown; however, they seem to represent some kind of reactionary or dysplastic process.

Case Report: The aim of this report is to present two cases related with cemento-osseous lesions, on different types and localizations. First case involves a focal cemental dysplasia, in a 58-year-old woman, in the posterior toothless area of the right mandible. The other case involves a periapical cemental dysplasia (cementoma), in a 36-year-old woman, in the molar teeth root area of the left mandible. Although the lesions do not require any treatment, because of the patients request the lesions were surgically excised. Follow up after surgeries, the mandibles had uneventful healing.

Keywords: Cemento-osseous, dysplasia.
UNEXPECTED CONDITION MIMICKING ORAL DISEASE


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Introduction: Chemical irritants can cause injury on the oral mucosa. The clinical appearance of the chemical burns can be seen in variable forms related on the severity of the tissue damage. Lesions may be irregular in shape, white, covered with a pseudomembrane, mucositis, keratotic white lesions occasionally with pain. Sodium bicarbonate (NaHCO3) is a white, crystalline powder used for different purposes as well as in cooking. The community opinion for treatment of oral diseases with sodium bicarbonate rinse may have adverse results as we encountered in this case.

Case Report: A 55 year-old female patient referred to our clinic with white lesion in oral mucosa at the sulcus of upper incisor teeth. Anamnesis of the patient did not show any significant systemic disease except hypertension. Patient told that she had an impression of her upper chin for prosthodontic treatment. After the impression, because of little pain at the related area, she made mouth washing with baking carbonate for two days. Clinical evaluation revealed painless white lesion in the sulcus of upper incisor teeth. We prescribed chlorhexidine mouthwash for two weeks and observed the patient with routine visits. The white lesions healed without signs and symptoms. Clinical follow-up after the healing continued one months.

Conclusion: Mostly sodium bicarbonate (NaHCO3) is to be harmless on healthy oral mucosa but if there is a laceration on mucosa it would result such conditions. Clinical diagnosis of a chemical irritation of the oral mucous membranes may be a diagnostic challenge. Clinical experience and anamnesis helps clinician in diagnosis of such interesting results of homemade oral health solutions of community.

Keywords: Impression, oral mucosa, sodium bicarbonate.

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EFFECTIVENESS OF ORAL BRUSH BIOPSY IN DETECTION OF ORAL CANCERS: A CASE REPORT

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Introduction: In malign neoplasms, oral cancer is one of the important causes of mortality and morbidity. About 90% of oral cancers are squamous cell carcinomas and the prognosis is unfortunately only %19 of the 5-year survival rate with distant metastases. Although early detection is the fundamental factor for improving the survival rate, most malignant oral tumors are not detected until they are in advanced stages. Histological examination continues to be the only reliable, accepted method to identify oral soft-tissue malignancies but it is an invasive technique with surgical intervention and anesthesia. Exfoliative cytology has gained importance in recent decades as a simple, rapid method.

Aim: The computerized brush biopsy analysis (Oral CDx®) was introduced in 1999 and has proven to be useful in identifying precancerous and cancerous oral lesions, especially those that are not suspected of being harmful.

Case: Oral CDx biopsy performed in 47 years old male patient with a suspicious lesion in anterior mandibula was presented.

Discussion: The advantages of this technique in early detection of oral cancers was discussed in this report.

Conclusion: The use of the oral brush biopsy permits the dental practitioner to screen the lesions in often critical situations.

Keywords: Oral brush biopsy, oral cancer.
IDIOPATHIC BONE CAVITIES OF MANDIBLE: REPORT OF TWO CASES

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Introduction: Idiopathic bone cavities are the unusual empty cavities that occur in jaws as well as the long bones of skeleton with unknown cause. It has been also called with various synonyms such “simple bone cyst, solitary bone cyst, hemorrhagic bone cyst, traumatic bone cyst, progressive bone cyst” in literature. Most of the IBCs are diagnosed incidentally in OPTG and most of the individuals affected are teenage or at early 20s. Histologically, IBCs contain bone portions with or without imperceptible fibrous tissue containing capillaries. Diagnose is established with aspiration of lesion and opening of bone window and accumulation of bleeding and fibrin inside the cavity is usually efficient for resolution of bone defect.

Case Report: A 12 years old girl and a 14 years old healthy boy referred to our clinic with radiolucent areas in OPTGs in mandible anterior segment. Radiographic examinations showed a well-defined, unilocular radiolucent lesion in both cases. In surgical operations, we encountered the cavity which was lined by unsolid tissue and no cystic wall detected. We were able collect few tissue specimens excavated from the cavity wall for histopathological examination. Histopathological examination revealed reactive changes with hemorrhage and loose vascular fibrous tissue without epithelial lining in both cases.

Discussion: IBC’s is uncommon, representing approximately 1% of all jaw cysts. Its etiopathogenesis is uncertain and it is controversial that “trauma theory is the most known and main factor for idiopathic bone cavities”. Clinical appearances and treatment modalities are occasionally similar in all cases.

Keywords: Idiopathic, cavities, bone.
SOFT TISSUE PATHOSIS ASSOCIATED WITH ASYMPOTOMATIC IMPACTED LOWER THIRD MOLARS

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Objective: This study was conducted in order to determine the prevalence of pathological changes in the pericoronial tissue of clinically and radiographically asymptomatic lower third molars, and assess the correlation between these pathological changes and patients' demographic characteristics and some radiographic and morphological features of lower third molars.

Materials and Methods: Fifty follicles associated with fully impacted lower third molars were submitted for histological examination after surgical extraction from 22 males and 28 females. The correlation between pathological changes in the dental follicle and age, gender, depth of impaction, angular position, coverage, and tooth development was analyzed.

Results: Five (10%) specimens exhibited cystic changes and 31 (62%) inflammatory changes. Compared with class C depth of impaction, there was a greater prevalence of inflammation in teeth in class B (X² = 7.90; p = 0.02). Seven (87.5%) out of eight third molars covered only in mucosa, 17 (73.91%) out of 23 third molars partly covered by bone, and seven (36.84%) out of 19 third molars completely covered by bone exhibited inflammatory change (X² = 11.09; p = 0.03). There was a significant correlation between the completion of tooth development and cell activity in the epithelium (X² = 7.24; p = 0.03).

Conclusions: Despite being clinically and radiographically asymptomatic, impacted lower third molars, and particularly those in class B that are completely covered by mucosa and that have completed tooth development have the potential to undergo pathological change. For that reason, we recommend that every asymptomatic third molar be monitored and that all follicles surgically extracted be analyzed histopathologically.

Keywords: Pericoronar pathosis, impaction, pericoronar radiolucency, third molar.

PLEOMORPHIC ADENOMA OF THE UPPER LIP IN AN EARLY ADULT: A CASE REPORT

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Salivary gland neoplasms represent less than 1% of all tumors, and 3-5% of all head and neck neoplasms. Minor salivary gland tumors are infrequent, accounting for 10-15% of all salivary neoplasms, and are fundamentally located in the palate (50%), lips (15%), cheek mucosa (12%), tongue (5%) and floor of the mouth (5%), among other regions. It mainly affects women in their fourth to sixth decade of life and has a natural history of asymptomatic slow growth over a long period. This case report describes a rare lesion found in a 23-year-old girl, which was diagnosed as pleomorphic adenoma of the minor salivary glands in the upper lip. Complete excision was performed.

Keywords: Lip, minor salivary gland tumors, pleomorphic adenoma.
TRAUMATIC (SIMPLE) BONE CYST OF THE MANDIBLE

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The traumatic bone cyst (simple bone cyst or hemorrhagic extravasation cyst) is an intrabony dead space that lacks an epithelial lining. This lesion is quite uncommon in the mandible and maxilla, but it occurs relatively frequently in the humerus and other long bones. Surgical exploration and thorough curettage is the treatment of choice. In the present case report, a 27-year-old man referred to our faculty for dental treatment. During radiographic examination, the traumatic bone cyst in the mandibular anterior region was detected. Curettage of the cavity was done under local anesthesia. Healing was unproblematic at 24th month.

**Keywords**: Mandible, cyst, hemorrhagic extravasation cyst, simple bone cyst, traumatic bone cyst.

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TRAUMATIC CYST: A CASE REPORT

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**Introduction**: Traumatic cyst is a rare bone lesion which is mostly seen in the anterior mandible. It is not surrounded with an epithelial lining and treated with surgical curettage. In this case, a traumatic bone cyst in mandibular canine-premolar region is presented.

**Case Report**: 46 year old male patient attended to our clinic with complaint of a bone cavity on the lingual aspect of his mandible. Clinical examination revealed a painless, ellipsoid bone cavity which opens to the lingual part of the oral cavity. The patient gave a history of a traumatic premolar tooth extraction from the associated region 2 years earlier. A concavity was observed in this region where the bone was lined with normal and healthy mucosal epithelium. A bone cavity surrounded with normal soft tissue was confirmed in tomographic examination, too. A clinical and radiographic follow-up is found appropriate.

**Discussion**: Traumatic bone cyst is mostly seen as a painful lesion and treated with surgical curettage. There is an increased chance of recurrence. Although the etiology of the lesion is not evident, a possible traumatic etiology is considered for the occurrence of traumatic bone cyst. In this case, traumatic extraction of first premolar tooth was considered to be the reason of traumatic bone cyst and a surgical protocol was not applied due to the absence of pain. No apparent complications like progression of the lesion or fracture was seen after a one and half year follow-up period. However, bone apposition was clearly seen in the lesion, both radiographically and clinically.

**Keywords**: Traumatic bone cyst, traumatic bone defect.
MONOSTATIC FIBROUS DISPLASIA: CASE REPORT

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Fibrous dysplasia is a benign, slow growing fibrous-osseous lesion of the bone and is generally seen in children and adolescents. Maxilla is the most frequent site in the head and neck region. The aim of this report is to present a maxillary monostatik fibrous dysplasia in a 52 years old woman who referred to our faculty for prosthetic rehabilitation. The clinical examination revealed a painless swelling at the right maxillary posterior region which makes it difficult to perform an optimal prosthetic reconstruction. In radiographic examination the typical area of orange-peel texture was observed at the right maxillary edentulous region. Surgical resection was performed to correct deformity of the alveolar crest. The prosthetic rehabilitation was performed two months after the surgery. Four mouths follow-up is revealed no complication.

Keywords: Maxilla, fibrous dysplasia, prosthetic rehabilitation.

GIANT CELL REPARATIVE GRANULOMA (GCRG): REPORT OF A CASE

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The term giant cell reparative granuloma (GCRG) was introduced by Jaffe in 1953 affecting mandible and maxilla following a trauma-induced intraosseous haemorrhage. He also differentiated GCRG, from giant cell tumour (GCT). It usually develops in the first three decades of life. GCRG is seen in women more frequently than in men. A definite cause for the condition has not been discovered in etiology. Inflammation, trauma and intramedullary bleeding are claimed to be caustic. The most commonly practiced treatment method is surgical curettage. We present a case of a 4-year-old boy who, had a history of bicycle fall down 6 months ago, was admitted to our clinic with complaints of a swelling in vestibule he had noticed 1 month ago. Surgical treatment of the lesion was performed. Histopathological examination of the specimen was compatible with the diagnosis of reparative giant cell granuloma.

Keywords: Giant cells, reparative granuloma, swellings of anterior maxilla.
CYSTIC COMPOUND ODONTOMA CONCOMITANT WITH IMPACTED TOOTH

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Introduction: Odontomas are mixed odontogenic tumors containing both epithelial and mesenchimal dental tissues. They are subdivided into compound and complex odontomas morphologically. Odontomas have a rare potential to develop cystic characteristics, which is termed cystic odontoma.

Case Report: This report describes a case of cystic compound odontoma concomitant with an impacted tooth, which is located in mandibular corpus/ramus area, in a 14-year-old woman. Cone-Beam Computed Tomography (CBCT) examination was performed to determine the borders of the lesion and the mass was excised under general anesthesia. In the 6th month of post-operative follow up period, complete bone healing was observed with no complication.

Discussion: Cystic odontomas consist of both cystic and tumoral structures, so they are defined as combined odontogenic lesions. This is a rare pathological condition. CBCT imaging provides 3-D treatment planning option for maxillofacial pathological lesions.

Keywords: CBCT, Cystic odontoma, dentigerous cyst, impacted tooth, mandible.

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LUDWIG’S ANJINA: A CASE REPORT

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Ludwig’s angina is a serious and rapidly progressive infectious process that spreads by the floor of the mouth affecting simultaneously to submandibular, sublingual and submental spaces. It was first described in 1836 by Willhelm Frederick von Ludwig as a gangrenous induration of soft tissues of the neck and the floor of mouth. This condition is characterized by fever, malaise, dyspnoea and dysphagia. Frequency in males was reported 2-3 times more than in female patients. In most instances it develops as a complication of an odontogenic infection usually from the second and third molars. The role of the dentist in this serious disease is important since early diagnose may prevent a life threatening infection. In this case report, we present the treatment of a young male patient who referred to our clinic with a serious swelling at neck region and diagnosed as Ludwig’s angina.

Keywords: Ludwig’s Anjina, odontogenic infection, orofacial cellulitis
IS THERE AN ASSOCIATION BETWEEN CLINICAL SUCCESS OF LYSINE AND HSV-1?

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Although many etiological factors have been suggested in recurrent aphthous ulcer (RAU), an exact mechanism or a factor triggering RAU has not been confirmed yet. Herpes viruses were also related with the appearance of RAU lesions. The aim of this study was to investigate the clinical effects of L-lysine monohydrochlorid which is known to be a natural viral inhibitor based on a probable role of herpes simplex virus on RAU etiology. Patients with minor recurrent aphthous ulcers (MiRAU) and healthy subjects without history of any oral mucosal disease were included in this study. Herpes simplex type-1 (HSV-1) IgG was examined by ELISA within serums samples and HSV-1 DNA by real-time PCR technique within salivary samples of the groups. Patients with MiRAU were divided into two of placebo (14 patients) (Group P) and lysine (16 patients) treatment groups (Group L). After the end of two months’ therapy, clinical changes together with HSV-1 values were recorded and the effectiveness of the study was tried to be measured by the success degrees (between 1-10) given by the patients. The difference in HSV-1 IgG was statistically significant between the patient and the control groups (p<0.05), while the difference in HSV-1 DNA was not. The number and the recurrence of the ulcers decreased significantly in Group L. There was also a statistically significance for the effectiveness and success degrees between Group L and Group P. There was not any statistically significance and correlation in values of HSV-1 IgG and HSV-1 DNA, both pre-treatment and post-treatment. The presence of HSV in saliva suggests a possible role in RAU etiology, and lysine is cheap and easy to perform so it may be tried on wider population groups and in patients who are.

Keywords: Recurrent aphthous ulcer, clinical effect, herpes virus, L-lysine monohydrochlorid.

A REFRACTORY CASE OF ACUTE ORAL LICHEN PLANUS

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Liken planus is a relatively common, chronic dermatologic disease that often affects the oral mucosa. Most patient with lichen planus are middle-aged adults. Female predominate in most series of cases, usually by a 3/2 ratio over male. The prevalence of oral lichen planus (OLP) is between %0,1 and %2,2. The etiology of OLP is unknown. During recent years, it has more evident that the immune system has a primary role in the development of this disease. A 25 year old male patient was referred for our clinic due to white lesions on his lips. The same type of lesions were identified on tongue, retromolar region, gingiva as well as various parts of oral mucosa by our clinical examination. Biopsies were taken for direct immunofluorescence (DIF) and histopathological examinations. As a result of biopsies OLP were diagnosed. In this paper the treatment of our patient and the clinical changes of patient with the treatment will be presented.

Keywords: Autoimmune disease, oral lichen planus, white plaque.
ROLE OF MATRIX METALLOPROTEINASES IN THE PATHOGENESIS OF ORAL LICHEN PLANUS DISEASE

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Oral Lichen Planus (OLP) is a chronic, inflammatory, commonly seen disease that may reveal oral and dermatological lesions. The main etiological cause of the disease is not known and treatment of the disease is symptomatic. Matrix metalloproteinases (MMPs) are a group of enzymes that play a central role in degradation of extracellular matrix (ECM), embryonic development, morphogenesis, tissue resorption and remodeling. Activities of MMPs are controled by specific tissue inhibitors of MMPs (TIMP). MMPs are also thought to play a role in pathogenesis of the diseases that reveal tissue breakdown. Roles of MMPs in the pathogenesis of OLP disease is researched on our study. According to specific criterions, 29 OLP patients and 10 healthy control group are included in the study. Biopsy specimens were taken with punch biopsy instrument (4 mm) from OLP lesions of buccal mucosa in patient group and from healthy oral mucosa in control group. MMP-2, -7, -10 and TIMP-1 are immunohistochemically researched in tissue specimens in laboratory.

Statistical results showed MMP-2, -7 presence in the epithelium and connective tissue and MMP-10 expression in connective tissue were significantly higher in OLP patients than normal oral mucosa. There were no statistically significant differences between TIMP-1 expressions, but MMP-2/TIMP-1 and MMP-7/TIMP-1 ratios were significantly higher in patient group compared to control group. In conclusion, immunohistochemical results of our study revealed that higher expressions of MMP-2, -7 and altered ratios of MMP-2/TIMP-1 and MMP-7/TIMP1, may play a role in the pathogenesis of OLP disease.

Keywords: Oral lichen planus, dentistry, matrix metalloproteinases, pathology, oral medicine.
COMPOUND ODONTOМА ASSOCIATED WITH MANDIBULAR IMPACTED PERMANENT CENTRAL INCISOR

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Introduction: Odontomas are the most common benign odontogenic tumours which are hamartomas composed of various dental tissues and two types (complex and compound). Compound odontomas are more prevalent than complex odontoma and consists of many teeth like. Most such lesions are asymptomatic structures. The etiology of these lesions has not been exactly explained. If there is absence of any contraindication, the treatment for odontomas is surgical excision.

Case Report: A 12-year-old-female patient was referred to our clinic due to the failure of the right mandibular central tooth to erupt and pain at anterior mandibular region. There was history of trauma, although no deformations, or swelling of the maxillofacial region. Clinical examination revealed no facial asymmetry extra orally, but it seemed to be there were no right mandibular incisors during intra oral examination. It determined that the patient had a pain at about two months at anterior mandible and her lateral incisor had removed due to a sport injury when 4 years old. A right mandibular central incisor in the vertical position and covered with multiple radio-opaque structures was determined at a panoramic and periapical radiographs and extracted with a surgical operation. It was established central incisor with a lot of tooth like structures after surgical operation. The initial radiographic diagnosis was a compound odontoma and it was also confirmed by histopathologically.

Conclusion: Odontomas are the most common odontogenic tumors. Their most significant characteristics comprise alterations in tooth eruption, and the diagnosis is casually established in the course of routine X-ray studies. Early diagnosis and management of odontomas in the primary dentition are essential in order to prevent later complications, such as failure of eruption of the primary and permanent teeth.

Keywords: Odontoma, compound, associated with impacted central incisor.

A FAMILY WITH HEREDITARY GINGIVAL FIBRAMATOSIS: CLINICAL ASPECTS AND TREATMENT WITH LASER SURGERY

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Hereditary gingival fibromatosis (HGF), is a rare disease of genetic origin, affecting only one in 750,000 people. It usually develops as an isolated disorder but can be one feature of a syndrome. HGF is characterized by varying degrees of attached gingival hyperplasia. The authors describe a family with generalized severe hereditary gingival fibromatosis involving the maxillary and mandibular arches. Removal of excess gingival tissue by laser surgery and following treatment strategies were described. Laser surgery is seems to be a preferrebla option compared to conventional gingivectomy.

Keywords: Gingival enlargement, hereditary gingival fibromatosis, laser surgery.
LATERAL PERIODONTAL CYST IN THE MANDIBULAR MOLAR REGION: A CASE REPORT

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The lateral periodontal cyst is an uncommon but well recognized type of developmental odontogenic cyst. The pathogenesis of the lateral periodontal cyst is not fully known. There seem to be three possibilities: reduced enamel epithelium, remnants of dental lamina and cell rests of Malassez. Radiologically, the lateral periodontal cyst appears as a round, oval or teardrop-like well-circumscribed interradicular radiolucent area, usually with a sclerotic margin, lying somewhere between the apex and the cervical margin of the teeth. Epidemiologically, this cyst presents at a low frequency, without a distinct gender predilection. In this study, a rarely case of the lateral periodontal cyst is presented that grew up in the mandibular molar region.

Keywords: Developmental odontogenic cyst, lateral periodontal cyst, preserved tooth vitality.

THE DEVELOPMENT OF SQUAMOUS CELL CARCINOMA FROM ACTINIC KERATOSIS: A CASE REPORT

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The early detection, recognition, and progression of the actinic keratosis (AK) and its relationship with squamous cell carcinoma have long been an area of debate. Actinic keratoses (AK) are rough, scaly lesions that commonly occur on sun exposed areas of the skin. They are the most common premalignant lesions of the skin and the prevalence of the condition increases with age. Actinic keratoses are thought to be carcinomas in situ, which can progress to squamous cell carcinomas. The decision to treat can be based on cosmetic reasons, symptom relief, or, most importantly, the prevention of malignancy and metastasis. We report a case of squamous cell carcinoma (SCC) developing from actinic keratosis in a 74-year-old man who presented to us for the first time 5 months ago because of a lesion on his lower lip of 3 years’ duration.

Keywords: Lip, actinic keratosis, squamous cell carcinoma.
ORAL MANIFESTATIONS OF NEUROFIBROMATOSIS TYPE 1: A CASE REPORT

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We describe a case of intraosseous neurofibroma in a 5-year old girl with neurofibromatosis-1 who presented with a gingival enlargement on the posterior alveolar ridge of the left mandible. On the three-year follow up, the growing tumor caused impaction and displacement of the permanent molar germs. The lesion was surgically removed together with primary second molar, unerupted permanent first and second molars. Enlargement of the inferior alveolar canal, especially towards the mental foramen, narrow condylar process and notching of the angulus were also observed on the affected side.

Keywords: neurofibroma, oral manifestations, neurofibromatosis

AN UNCOMMON TUMOR OF ORAL CAVITY: INTRAORAL LEIOMYOSARCOMA
A CASE REPORT

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Introduction: Leiomyosarcoma (LMS) is a malignant smooth-muscle tumor that accounts for 5–10% of all soft tissue sarcomas. It is extremely rare in the oral cavity and has a low survival. The occurrence of oral LMS is %3-10 of all LMSs arising in head and neck. The tumour is usually encountered as a slow growing, firm and non-ulcerated painless mass.

Aim: The aim of this study is to evaluate and discuss an oral LMS case.

Material-Method: A 45-years-old woman who had undergone endodontic treatment was referred to our clinic with a painless, expansive mass at her right palatal mucosa. Clinical examination disclosed that the pink-reddish lesion expands both labially and palatally. A CT scan revealed a vertical bone resorption with irregular border from her right maxillary 1st premolar to right 1st molar. The patient had undergone excisional biopsy from the lesion under local anesthesia. Histological examination of the biopsy specimen indicated LMS. The patient was undergone hemimaxillectomy and radiotherapy due to the invasive spread of tumor. In our case, there is no evidence of recurrence or metastasis is observed at 6 months follow-up examination.

Discussion: The treatment choice for LMS is surgical resection with a margin of clear tissue and radiotherapy. The cause of LMS remains unclear though trauma, oestrogenic stimulation, ionising radiation and Epstein-Barr virus are adopted as potential aetiologic factors.

Conclusion: Due to the clinical appearance, tumor can appear misleadingly as benign. Early diagnosis is crucial to avoid metastasis and follow-up examinations are essential on account of recurrence possibility.
GLANDULAR ODONTOGENIC CYST: A CASE REPORT

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Glandular odontogenic cyst (GOC) is a rare odontogenic cyst with an unpredictable and aggressive behaviour. It was first described by Gardner et al in 1987 and recognized by the World Health Organization in 1992. Because of the paucity of the reported cases of GOC (Approximately 120 in English literature) there is no certain consensus about management of this lesion. It occurs mostly in middle-aged man, especially in the anterior mandible and has a high risk of recurrence. This case report describes a glandular odontogenic cyst in a 40 year old male patient in the posterior mandible and 2 years follow up.

AMELOBLASTIC FIBRODENTINOMA: A CASE REPORT

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Ameloblastic fibrodentinoma is a rare, benign odontogenic tumour, composed of neoplastic odontogenic epithelium and odontogenic mesenchyme with dentin or dentin-like tissues. Ameloblastic fibrodentinoma arises mainly in the posterior mandible (maxilla/mandible ratio 1:3) and usually in association with unerupted molar teeth of young adults, adolescents and children. This case report describes the treatment modalities and histopathological findings of an ameloblastic fibrodentinoma of the left mandible related with the unerupted tooth of a 15 year old girl.
LEIOMYOMA OF THE ORAL CAVITY WITH A BONY INVOLVEMENT: A CASE REPORT

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Leiomyomas are benign tumors of smooth muscle that most commonly occur in the uterus gastrointestinal tract, and skin. Leiomyomas of the oral cavity are rare because of the paucity of the smooth muscles in this region. Leiomyomas are %0.42 of all soft tissue lesions reported in the oral cavity. Leiomyomas can be seen in any age with a mean age of 41 years. Males are slightly more affected than females. There are 3 types of leiomyomas; solid leiomyomas, vascular leiomyomas (angiomyomas or angioleiomyomas), and epithelioid leiomyomas (Leiomyoblastomas). Most of these tumors have their origin from vascular smooth muscle and angiomyomas account for %75 of all cases. The present report describes a leiomyoma of the right mandible placed between the first premolar and first molar teeth blocking the occlusion and tongue movements of the patient.

CERVICAL NECROTIZING FASCIITIS OF DENTAL ORIGIN: A CASE REPORT

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Necrotizing Fasciitis (NF), which holds deep fascia and subcutaneous fatty tissue including primarily surface fascia along with vein and nerve structure, is a fast progressing soft tissue infection of which mortality and morbidity is high. It is rarely seen in head and neck zone and usually develops after tooth and pharynx originated infections. Various terms are used for Necrotizing Fasciitis (NF) such as; streptococcal gangrene, progressive synergistic bacterial gangrene, necrotizing erysipelas, suppurative fasciitis, acute dermal gangrene, fournier gangrene. Early diagnosis, proper antibiotic therapy and surgical debridement form the factors affecting the success in cervical NF treatment. In this article, NF that progresses related to mandibular molar infection and its treatment are presented.

**Keywords:** Cervical fistula, necrotizing fasciitis.
FABRICATING OF AN INDIVIDUAL NON-ADJUSTABLE MANDIBULAR ADVANCEMENT DEVICE FOR A PARTIALLY EDENTULOUS PATIENT WITH MODERATE OBSTRUCTIVE SLEEP APNEA

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Obstructive sleep apnea (OSA) is a common disorder characterized by repetitive interruption of respiration, owing to partial or complete obstruction of upper airways during sleep. There are mainly four treatment alternatives for OSA patients, as behavioral, medical, surgical and dental approaches. In the last decade, oral appliances, especially mandibular advancement devices have been appeared a new promising approach for OSA treatment. Formerly, it was largely accepted that edentulism was a contraindication for oral appliance therapy of OSA patients. Unfortunately, there is still a lack of literature about oral appliance therapy on edentulous patients with OSA. In this case, we report fabrication procedure of an individual MAD on a partially edentulous patient with moderate OSAS.

Keywords: Partial edentulous, OSA.
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