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## International Oral & Maxillofacial Surgery Congress

MAY 16 - 20, ANTALYA 2008



..... RECONSTRUCTION ..... TEMPOROMANDIBULAR JOINT ..... TRAUMA ..... ORTHOGNATIC SURGERY ..... BIOMATERIALS ..... DISTRACTION

# ABSTRACT BOOK of ABCID 2008



GLANDS TUMORS ..... CANCER ..... ORAL SURGERY ..... BONE ..... ATHOLOGY ..... MANDIBULAR CYSTS ..... ORTHOPANTOMOGRAMS ..... FR

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**ORAL and MAXILLOFACIAL SURGERY SOCIETY  
2<sup>nd</sup> INTERNATIONAL CONGRESS**

16-20 May 2008, Antalya, Türkiye

**Abstract Book of ACBİD 2008**



Congress Secretaria & Official Congress Organizing Agency

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May 16-20  
**2008**

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Mostafa HEMEDA – Egypt  
Kishore NAYAK – India



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## From Congress Chairman

Dear Colleagues,

We are very excited and honoured to organize the 2<sup>nd</sup> International ACBID Congress with the contributions of the Honorary Congress President, the Congress Organization Committees, sponsor firms, the official organizing agency, Ritmo Tours & Congress and the honoured participants. The fact that 2008 is also the 100<sup>th</sup> establishment year of the modern dentistry makes this congress more exciting than ever.

On top of the scientific activities, such as courses, conferences, oral and poster presentations, we have also organized many social events in happenings to make this congress more fruitful. We thank and appreciate everyone that has contributed to organizing and putting this congress together, colleagues that have made scientific contributions with their scientific works and activities, sponsor firms, Ritmo who gave essential support, the employees of IC Santai Hotel and all participants. We hope that 2008 this Congress will be a great success and hope that everyone will enjoy their stay in Belek Antalya.

**Yavuz Sinan AYDINTUĞ**  
CONGRESS CHAIRMAN





## From President of ABCID

Dear Colleagues and Friends,

On behalf of our society ACBID, I am very much pleased to organize our Second International ACBID Meeting on Oral and Maxillofacial Surgery in Belek. We have been working very hard since last year following our First International Meeting that was held in Kundu.

Since the very first day of our recently established society of ACBID our continuing primary goal is to establish an educational opportunity not only for those who are currently in training but also for all whom are devoted themselves to enhance and advance their knowledge and skills unendingly.

We firmly believe that international atmosphere of interaction, exchange and share of experiences, related information and different approaches would be invaluable for each and every participant. I would like to express my sincere gratitude to all speakers who are kindly agreed to took part in this scientific program as they all have generously given their precious time and willingly transfer their expertise unselfishly.

The abstract submissions have greatly exceeded that of last year which I think is very important meaning authors credited our meeting as a dynamic, inspirational and stimulating one to present their work.

My acknowledgements also go to all attendees who are very supportive in our ideals in pursuing educational activities and towards the success of the meeting.

I sincerely hope that 2008 International ACBID Meeting will prove to be a successful meeting to meet the goals of all attendees and leave pleasant memories behind.

I would like to extend my warmest welcome to you all.

Kindest regards,

**Reha S. KİŞNİŞCİ**  
President, ACBID



# INVITED SPEAKERS





- AL-BARGI Hamed, SAUDI ARABIA**  
**ALYAMANI Ahmed, SAUDI ARABIA**  
**BAYKUL Timuçin, TURKEY**  
**BEIRNE O. Ross, USA**  
**BOHLULI Behnam, IRAN**  
**CHANGSIRIVATANATHAMRONG Vacharee, TAILAND**  
**CHEUNG Lim, HONG KONG-CHINA**  
**DURMUŞ Ercan, TURKEY**  
**EPKER Bruce N., USA**  
**FEINBERG Stephen, USA**  
**GAREEB Fouad, EGYPT**  
**GUERRERO Cesar A., VENEZUELLA**  
**GÜNHAN Ömer, TURKEY**  
**HAERS Piet, UK**  
**HIDDING Johannes, GERMANY**  
**KONSTANTINOVIC Vitomir S., SERBIA**  
**MORTAZAVI Hossein, IRAN**  
**MUGHAL Jehanzeb, PAKISTAN**  
**OLSSON Alexis B., USA**  
**PRECIOUS David S., CANADA**  
**RAHSEPAR Behzad, IRAN**  
**RAJA Kummoona, IRAQ**  
**SALINS PAUL, INDIA**  
**SARKARAT Farzin, IRAN**  
**SOARES Marcelo Melo, BRASIL**  
**SKOUTERIS Christos, GREECE**  
**STASSEN Leo, IRELAND**  
**STRAUSS Robert, USA**  
**ŞENEL Figen Çizmeci, TURKEY**  
**SWENNEN Gwen, BELGIUM**  
**TOMBRIS Stavros, GREECE**  
**TREVISOL Lorenzo, ITALY**



# ORAL PRESENTATIONS

## ORAL ABSTRACT SESSION 1

### OP101

#### **Mandibular Fractures: A Comparative Analysis between Young and Adult Patients in the Southeast Region of Turkey.**

Serhat ATILGAN, Behçet EROL, Ferhan YAMAN, NeziH YILMAZ

*Dicle University, Faculty of Dentistry, Dept. of Oral and Maxillofacial Surgery, Diyarbakir, TURKEY*

**Aim:** To review and compare the differences between mandibular fractures in young and adult patients.

**Patients and Methods:** We retrospectively evaluated patients treated at the Oral and Maxillofacial Department of Dicle University during a five-year period between 2000 and 2005 with respect to age groups, gender, etiology, localization and type of fractures, treatment methods and complications.

**Result:** 532 patients were included in the study, 370 (70%) males and 162 (30%) females, with a total of 744 mandibular fractures. The mean age of young patients was 10, with a male-female ratio of 2:1. The mean age of adult patients was 28, with a male-female ratio of 3:1. The most common causes of injury were falls (65%) in young patients and traffic accidents (38%) in adults. The most common fracture sites were the symphysis (35%) and condyle (36%) in young patients, and the symphysis in adults (36%). Mandibular fractures were generally treated by arch bar and maxillo-mandibular fixation (MMF) in both young (67%) and adult (39%) patients, and 43% of the adult patients were treated by open reduction and internal fixation.

**Conclusion:** There was a similar gender, monthly and type of treatment distribution in both young and adult patients in the southeast region of Turkey. However, there were differences regarding age, etiology and fracture site. These findings between young and adult patients are broadly similar to those from other studies. Analysis of small differences may be one important factor in assessing educational and socio-economic environments.

**Keywords:** Mandibular fracture, young and adult patients, retrospective study.

### OP102

#### **Removal of Bone Plates in Omani Patients with Maxillofacial Trauma - A Retrospective Study**

Abdulaziz A. BAKATHIR, Mohammed I. AL-ISMAILY, Manjunath V. MARGASAHAYAM

*Sultan Qaboos University Hospital, Muscat, OMAN*

**Purpose:** The aim of this retrospective study was to assess the incidence of and indication for the removal of the maxillofacial bone plates over a five-year period in patients with maxillofacial trauma who had received treatment at the Oral and Maxillofacial Surgery Unit, Al-Nahda Hospital, Muscat, Sultanate of Oman.

**Methods:** The medical records of all patients who underwent removal of bone plates following facial bone trauma were reviewed over a five-year period (2000 to 2004). Data concerning age and sex distribution, aetiology of trauma, year of removal, time between insertion & removal, indication for removal, site of removal and general medical factors were evaluated for each patient.

**Results:** Facial bone fractures in 1.177 cases were diagnosed during the study period of which 465 cases underwent open reduction and internal fixation using bone plates & screws. In 109 cases bone plates were removed (79 males and 30 females) with an overall removal rate of 23.4%. The most common indication for removal was young age (paediatric patients 53.4%) followed by infection (25%). The mandible was the commonest site of removal (80%). Most of the plates (86%) that required removal in adults were removed within the first year following insertion.

**Conclusions:** Based on this study the incidence of bone plate removal was relatively low and the most common indications for plate removal were young age (paediatric patients) followed by infection.

### OP103

#### **Maxillofacial Traumas; Retrospective Analysis in 3397 Patients**

Hakan ÇAĞLI, Rezzan GÜNER, Belgin Gülsün GÖRGÜN, Behçet EROL, Berfin KAHRAMAN

*Dicle University, Faculty of Dentistry, Dept. of Oral and Maxillofacial Surgery, Diyarbakir, TURKEY*

Maxillofacial trauma is frequent and requires diagnosis of fractures and soft tissue injuries, sometimes emergency intervention, and appropriate treatment. A multi-

disciplinary approach was necessary to make a correct diagnosis and to apply the best surgical treatment. Maxillofacial injuries occur in various situations: traffic accidents, kick by animals, fights, gun-shot wound and sport events in addition to patients falling. Typically, epidemiologic studies are primarily concerned with the sites where trauma occurs and the types of injuries that result. We complete a retrospective descriptive study of 3397 patients who experienced maxillofacial trauma, with respect to age, sex, trauma type, and the site of injury, at the Department of Oral and Maxillofacial Surgery, Faculty of Dentistry, University of Dicle, Diyarbakir from 1978 to 2008. There were 2622 males (77.1%) and 775 females (22.9%) whose ages ranged from 3 to 75 years. Despite the fact that the mandible is the largest and strongest facial bone, it is fractured two or three times more often than other facial bones. In our study mandibular fractures was observed in 74.2%, followed by maxilla 9.7% and zygomatic fractures 8.5%. The aim of this study was to analyse retrospectively the demographic distribution, treatment modalities, and complications of maxillofacial fractures in 3397 patients treated in our clinic between 1978 and 2008.

## OP104

### Comparison of Stability of Titanium and Absorbable Plate and Screw Fixation for Mandibular Angle Fractures

Alparslan ESEN, Hanife ATAÖĞLU, Lokman GEMİ

*Selçuk University, Faculty of Dentistry, Dept. Of Oral and Maxillofacial Surgery, Konya, TURKEY*

**Objective:** Purpose of this experimental study was to compare the stability of titanium and absorbable plate and screw fixation systems for mandibular angle fractures.

**Study design:** Twenty-one sheep hemimandibles were used to evaluate 3 different plating techniques. The groups were fixated with a single titanium plate, a single absorbable plate and double absorbable plates. Cantilever bending biomechanical test model was used for the samples. Each group was tested with vertical forces by a servohydraulic testing unit. The displacement values in each group at each 10 N stage up to 100 N were compared using the two-way analysis of variance test.

**Results:** The displacement values for the three groups differed significantly ( $P < 0.05$ ). The variance analyses showed that titanium plate placement had more favor-

able biomechanical behavior than others. In addition, the two absorbable plates group had more favorable biomechanical behavior than a single absorbable plate group but it was not significantly different at 10-40 N.

**Conclusion:** The study demonstrated that titanium plate and screw fixation system had greater resistance to occlusal loads than absorbable plate and screw systems. In addition, second absorbable plate orientation provide a more favorable biomechanical behavior than a single absorbable plate placement.

## OP105

### The Use Of External Fixator in the Treatment of Maxillofacial Comminuted Fractures with Soft Tissue Avulsion

Alireza HALAJMOFRAD Amin RAHPEIMA

*Mashad, IRAN*

**Objective:** The use of the external fixators in the management of maxillofacial comminuted fractures, in the past, had been common. But nowadays, using of external fixators has limited because of using miniplates and reconstructone plates.however, using of theme can be very useful in the treatment of patients with comminuted fractures that have soft tissue avulsion.

**Method & Material:** In this study, report the case with comminuted fractures and soft tissue avulsion that was treated by external fixator. A special external fixator is available for maxillofacial, but we use orthopedic external fixators, because the lack of them.

**Results:** Suitable reduction of segments and complete union has been achieved, nevertheless comminuted fractures and soft tissue avulsion.

**Conclusions:** Using of the external fixators is very limited, because of various plates. However, in patients with comminuted fractures and soft tissue avulsion is very succesfull and significantly reduce the probability of infections and malunion.

**Key words:** External Fixator, Comminuted Fractures, Mandible

**OP106****The Role of Midfacial Degloving (MFD) Approach for Traumatic Injuries of Midface**Ramin FOROUGHI*Babol University of Medical Sciences, Babol, IRAN*

**Introduction:** The MFD approach has been used as a surgical approach to gain access to regions of the midface that would otherwise require external incisions. Rhinoplastic releasing incisions combined with maxillary circumvestibular incision provide an extensive access to midfacial region without leaving an external scar.

**Patients and Methods:** The author has used the MFD approach to gain access to comminuted nasomaxillary fractures and comminuted NOE fractures in a few number of victims. The procedure uses 4 basic incisions:

1. Maxillary circumvestibular incision
2. Bilateral intercartilaginous incisions
3. Complete transfixion incision
4. Bilateral piriform aperture incisions extending to the vestibule In this way, a complete degloving of the midface up to the nasofrontal angle and the zygoma prominence is possible.

**Conclusion:** Midfacial degloving offers good exposure of the mid third of the face with excellent cosmetic results. The most common complications related to MFD was temporary infra orbital anesthesia or hypoesthesia and temporary asymptomatic nasal valve stenosis.

**OP107****A comparative Study of Etiology of Adult Mandibular Fractures in Sultanate of Oman and in South Australia: Prevention is Possible**Ahmed AL HASHMI, Mohammed AL ISMAILY, An GOSS  
*Adelaide, AUSTRALIA*

This study compared the etiology of adult fracture mandible occurred in Oman and in South Australia (SA) between January 2004 and December 2006. The 272 Omani patients had 370 mandible fractures and the 277 Australian patients had 385 mandible fractures. In Oman 53% of adult mandibular fractures are results of road traffic accidents and 7% are from assault whereas in South Australia 5% were RTA and 80% were from assault. These results are consistent with governmental reports on RTA from both countries. The RTA index, i.e. deaths per 100.000 populations for Oman is 27 while it

is 9 for SA. While there is a remarkable increased incidence of RTA in developing countries, interpersonal violence is a major health hazard in developed countries. These etiological differences are on line with several world reports. Preventative measures and recommendations for both countries are presented.

**OP108****Pattern of Maxillofacial Injuries in the Earthquake Victims and Their Management.**Muhammad Wasim IBRAHIM*Armed Forces Institute of Dentistry, Oral & Maxillofacial Surgery Dept., Rawalpindi, PAKISTAN*

**Objectives:** To present the pattern of maxillofacial injuries observed in earthquake victims and to discuss their management.

**Place & Duration:** This paper/presentation is based on the study which was conducted at the Oral & Maxillofacial Surgery Department, Armed Forces Institute of Dentistry (AFID), Rawalpindi, Pakistan over a period of six months following the 8th October, 2005 Earthquake.

**Patients and Methods:** 176 patients who sustained oral & maxillofacial injuries during the earthquake were included in this study. The pattern of maxillofacial injuries and their management was documented. Pattern of Maxillofacial Injuries and their Management: Out of the 176 patients, 141(80.11 %) had fractures of the maxillofacial bones. The remaining 35(19.88 %) patients sustained soft tissue injuries, dentoalveolar fractures and temporomandibular joint (TMJ) injuries. Isolated mandibular fractures were seen in 64(36.3 %) patients. Fifty-seven (32.3 %) patients had multiple fractures of the facial bones. Zygomatic bone was fractured in 18(10.2 %) patients whereas 02(1.1 %) patients had isolated fracture of the maxilla. Fifty-nine (41.1 %) patients were treated by closed reduction and IMF, 55(39 %) patients by open reduction and transosseous wire fixation in addition to IMF and 27(19.9 %) cases by open reduction and miniplate osteosynthesis. Postoperative complications were noticed in 18(10.2 %) of the patients.

**Conclusion:** Multiple fractures of the facial bones were far more common than the routine trauma cases. The magnitude of the disaster dictated simple and timesaving conventional methods of management in majority of the cases.

**Key words:** Pattern, maxillofacial injuries, earthquake.

**OP109****Correction of Malocclusion by Anterolateral Osteotomy in a Traumatized Maxilla**

Berkem ATALAY, Nurhan GÜLER, Fatih CABBAR

*Yeditepe University, Faculty of Dentistry, İstanbul, TURKEY*

Injuries to the face may cause long-term defects both aesthetic and functional consequences when the treatment is delayed, inadequate or absent. The variety of osteotomy techniques is applied to improve posttraumatic malposition of the maxillofacial bones and occlusal function. In this oral presentation, a 21-year-old female had a severe deformity in maxilla caused by accident and treated by anterolateral osteotomy will be presented.

**ORAL ABSTRACT  
SESSION 2****OP110****Radiographic Evaluation and Comparison of the Effects Human Bone Matrix Gelatin (HBMG) with Autogenous Bone Graft in the Reconstruction of Parietal Bone Defect in Rats**

Hossein. SHAHOON, T. JALAYER, Dr. SHAHRAVI, Mojtaba Turk SAFAEE

*Shahed University, Tehran, IRAN*

**Introduction:** Autogenously bone graft is commonly used for the reconstruction of bone defects in routine surgical procedures. The complication of producing bone grafts and application of them is an important factor that has been encouraged investigators to detect an alternative substitute and human bone matrix gelatin (HBMG) is one of the most famous materials among them.

**Methods & Material:** This was a cross-sectional and experimental study was conducted in 12 rats. Data was collected by digital and film-based radiographic observations and microscopic evaluations, carried on 4 groups of rats sacrificed in 7th, 14th, 24th and 60th days after surgery. Autograft and HBMG were placed accidentally in the right and left side of parietal bone of rats to fill the defect. The quality and quantity of bone formation were compared in 4 groups (each group contained 3 rats) at 7th, 14th, 24th and 60th days after surgery.

**Result:** The new bone was made in holes containing HBMG was significantly more opaque in comparison with autograft. There was no significant difference between two bone substitutes **Conclusion:** Our finding suggested that HBMG has the same effects as autograft and this material could be useful in reconstruction of bone defects in parietal bone of rats.

**Key words:** Human Bone Matrix Gelatin, autograft, reconstruction, defect



**OP111****The Histological Study of the Efficacy of the Coral (Madrepora) Particles on Parietal Bone Healing of Rabbit**

Hamid Reza AZIMI, M. JALALY, H. TOFIGY

*Tehran, IRAN*

**Background and Aim:** G.B.R is a reparative process that is used for treatment the osseous defects. In this process the new bone is forming in the osseous defect. The aim of this study was the evaluation of healing of osseous tissue with the coral (madrepora), coral with membrane (vebas) and only membrane.

**Method and Material:** This study was performed on 5 white new zealand rabbits. 3 surgical bone defects were created in parital bone. In the experimental group coral particles (250-500 micron) were placed in the bone defect. The inferior and superior surface of bone defect was covered with membrane.(group1) . In second defect, coral particles placed in the defect without any membrane (group2). In the control group, vebas membrane was placed on the surfaces of the defect (group3). After 8, 9, 11, 14 and 15 weeks animals were sacrificed.

**Results:** Histologically the defect that contains coral and membrane after 15 weeks was filled with bony trabecules. In the second group the bony trabecules was seen only in the periphery of the defect. In the third group, the defect was filled with connective tissue.

**Conclusion:** Coral spices have biocompatibility with rabbit tissues and the repair process in the osseous defect has been accelerated.

**OP112****A Technique for Protecting Inferior Alveolar Nerve: Coronectomy**

Kubilay IŞIK, Doğan DOLANMAZ, Gülsün YILDIRIM, Korhan KÜÇÜK, Adnan ÖZTÜRK

*Başkent University, Implementation and Research Center, Konya, TURKEY*

Removal of erupted, partially or totally impacted third molars is still one of the most common oral surgery operations. It is not a particularly difficult procedure but it can lead to several complications including damage of inferior alveolar and lingual nerves. Inferior alveolar nerve damage is often caused by close relationship between the nerve and the roots of the tooth. The tech-

nique of coronectomy has been proposed as a means of removing the crown of a tooth but leaving the roots, which may be intimately related with the inferior alveolar nerve, untouched so that the possibility of nerve damage is reduced. In this study, 43 patients who needed removal of lower third molar and whose root apices were very close to the inferior alveolar canal underwent 47 coronectomy procedures. The mean follow-up period was 9.3 months (range 1-48 months). The mean total amount of root movement was 3.4 mm at 6. month, 3.8 mm at 12. month and 4.0 mm at 24. month. Coronectomy is a preferable technique for the patients who have risk of injury to the inferior alveolar nerve during third molar surgery.

**OP113****An Unnamed Branch of the Lingual Nerve: Gingival Branch**

Aydin GÜLSES, Necdet KOCABIYIK, Altan VAROL, Metin ŞENÇİMEN, Hasan OZAN, Özlem ÜÇÜK

*G.A.T.A. Dentistry Sciences Center, Dept. of Oral and Maxillofacial Surgery, Ankara, TURKEY*

The aim was to demonstrate the unidentified branch of lingual nerve (LN) which provides the sensory to lingual gingiva and mucosa. We carried out dissections of sublingual and pterygomandibular spaces on 13 formalinized cadavers. An unnamed branch, which also was not demonstrated in any of the anatomical books before, was encountered bilaterally in 84.6% of all specimens. The branch was extending horizontally from the medial mandibular cortex at the level of the retromolar pad to mesial of lower first molars. It was supplying lingual periosteum, gingiva and mucosa overlying medial alveolar process. The mean diameter of the branch was measured to be 0.67 (0.1) mm at right and 0.65 (0.1) mm at left at the branching side. The mean length was 29.6 (4.5) mm at the right and 28.3 (4.3) mm at the left. The mean distance from alveolar crest was 5.9 (0.9) at the right and 5.7 (0.9) at the left side. LN is known to provide sensory to the lingual soft tissues, however none of the anatomical textbooks illustrate presence of such a subdivision or a branch supplying that part of the oral cavity. We describe the existence and the morphologic characters of this unnamed branch providing sensorial innervation to the lingual mandibular soft tissues. We recommend to name this branch as "the gingival branch of lingual nerve".

**OP114****The Evaluation of Safety and Analgesic Efficacy of Paracetamol and Ibuprofen Followed by Impacted Third Molar Surgery**

Birkan Taha ÖZKAN, Ercan DURMUŞ, Abdullah KALAYCI, Sevil KURBAN

*Selçuk University, Faculty of Dentistry, Dept. of Oral and Maxillofacial Surgery, Konya, TURKEY*

**Introduction:** An increasing number of studies have focused on the use of preemptive analgesia for postoperative pain relief. Paracetamol and ibuprofen has been extensively used in the control of postoperative pain after third molar surgery.

**Patients:** In this prospective, randomised, single-blind, parallel group study, 30 patients were included and randomly divided in to 2 groups. In the early preoperative period, the patients received a single starting dose of either soluble ibuprofen 400 mg dissolved in 100 ml of water or 15-min intravenous infusion of paracetamol 2 gram. Surgery in each patient was performed twice, 1 impacted tooth was being removed at a time and another one was being removed 2 weeks later. Analgesic efficacy, safety variables and trismus values were evaluated.

**Results:** Despite the analgesic efficacy over a 24-hour period was of statistically no significant difference between 2 groups, clinical data shows that the analgesic efficacy of paracetamol group was greater than ibuprofen group. As for the mean trismus values, there was no statistically significant difference between groups. The administered dosages of the analgesics did not lead to hepatocellular injury and biochemical abnormality and no marked increase in hepatic enzymes were reported.

**Conclusion:** Each drug can be used as a preemptive analgesic for postoperative pain control in impacted third molar surgery. Despite there was no statistically different between paracetamol and ibuprofen, clinically paracetamol has better analgesic efficacy.

**OP115****Evaluation of the Effects of Articain Forms for Impacted Third Molars on Stress Hormones**

Cevlan Ertuğrul KÖYMEN, Ümit KARAÇAYLI, Ramazan KÖYMEN, Burak ERGÜDER, Yavuz Sinan AYDINTUĞ, Mesut AKYOL

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Anesthetic and surgical procedures may cause stress which results in endocrinal and metabolic changes when applied, by the use of different anesthetic methods, these responds can be reduced, even prevented. Stress respond is initiated by various stimulants and is a serial of otonomic, neuroendocrinal, metabolic and immune answers of the body against these stimulants. Because of these responds, endocrinal system, particularly the hormones secreted by the hypofisis, tiroidis, paratiroidis and adrenal glands are significant for anesthetics and surgical procedures. The purpose of this study is to evaluate the effects of the different trades of local anesthetics with articain -containing and not containing epinephrine- which are used in maxillofacial surgery, especially in the management of the impacted third molars; on stress hormones (ACTH, cortisole), blood glucose level and vital findings. The patients, ranging from 18 to 40 years, with bilateral vertical positioned Class I or Class II compacted third molar extraction indication and without any systemic diseases, were selected for the study. Operations were done by injecting articain - solution containing adrenalin at one side of the jaw and with articain-solution which is not containing adrenalin at the contralateral side by the same surgent on each patient. Stress hormone levels and blood glicose levels were evaluated. The results were evaluated statistically and clinically.

**OP116****Prevention of Post Operative Sequels of Third Molar Surgery by Using Icepack (An Observer Blind Split Mouth Clinical Trial)**

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**Purpose:** Surgery of the impacted third molar involves a variety of post surgical sequels like pain, swelling and trismus. The aim of present study was to evaluation of the effect of icepack application on these postoperative sequels.

**Methods and Materials:** 20 healthy patients with symmetrically impacted third molar in mandibule with mean age 26 underwent to our randomized observer blind split mouth clinical trial. Each patient received two operations 5 weeks apart, randomly allocated to side and appointment. Each patient received an uniform glasslike icepack immediately after surgery for 25 minutes every hour for 24 hours, while receiving no intervention on the other side to serve as control.

**Results:** Pain, swelling and trismus were evaluated 24 and 48 hour postoperatively. Statistical analysis of each side determined no significant reduction of pain and trismus on first and second postoperative days, but swelling significantly decreased.

**Conclusion:** We conclude that, cryotherapy may be used for controlling of swelling after third molar surgery.

**Method:** Twelve patients (5 females, 7 males; age range: 19-36 years) with 12 hopeless teeth were included in this study. After the affected teeth were extracted slowly and carefully, teeth were given to an endodontist for extraoral treatment. Periapical area of the sockets were carefully curetted and the teeth were reinserted into the sockets. The survival times varied from 24 to 60 months. Two maxillary molars had to be extracted, but the other cases were successful clinically and radiographically in long term.

**Results:** Follow-up times varied from 24 to 60 months. Two (16.7 %) of the 12 teeth had to be removed within two weeks after IR. The other teeth (83.3 %) were still in function and causing no obvious problems.

**Conclusion:** IR is a reliable and predictable treatment for those cases in which endodontic retreatment are not feasible and apicotectomy is hampered because of anatomic limitations. IR should not be considered as a routine procedure, but rather as a treatment of last resort in cases when nonsurgical endodontic treatment, retreatment, or periapical surgeries are neither practical nor feasible.

**OP117****Long Term Evaluation of Intentional Replantation of Twelve Teeth**

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**Introduction:** Intentional replantation (IR) is the deliberately removal of a tooth and-following examination, diagnosis, endodontic manipulation, and repair-returning a tooth to its original socket. It is considered to be a technique of last resort and should be used when common endodontic treatment can not be undertaken or has failed, periradicular surgical intervention would be either impracticable or unlikely to succeed, or extraction of the affected tooth is the only alternative.

## ORAL ABSTRACT SESSION 3

### OP118

#### Patterns and Management of Maxillofacial Injuries Caused by Terrorist Attacks in Iraq

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During the last five years Iraq witness daily attacks of terrorists, different weapons have been used including explosive cars, explosive belts and road side bombs. This paper describe the patterns of maxillofacial injuries due to terrorist attack and how to manage these injuries when dealing with daily mass casualties in a very difficult situation including shortages in all surgical facilities. The study was carried out using the records of 200 patients sustained maxillofacial trauma and they were admitted to the Emergency Hospital of Sulaimani during the period May 2004 – May 2007 and the records of another 200 patients admitted to the Teaching Hospital of Babil have been used for the same purpose, so the total number of the victims was 400. Patient's information were considered including age, sex, site of injury, and time of the treatment. Soft tissues injuries were the most common (56.3%) and the lower third of the face was mostly affected in these injuries (44.2%). Ophthalmic injuries represent the most associated trauma (23%). Different surgical techniques were used in treatment of such trauma including, soft and hard tissues repair like the use of flaps, bone graft, miniplates, reconstruction plate, intermaxillary fixation and transosseous wiring. In conclusion, the management of this type of daily casualties needs simple and fast surgical technique in the first 24 – 48 hrs. of injuries when the general condition of the patient is permit.

### OP119

#### 28 Years' Clinical Experiences with Mandible Fractures

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**Summary:** Although mandible has a stronger structure than other facial bones; it is the one of the most affected

part of the face due to its anatomic position. It is well known that mandibular fracture is a common result of violence, traffic accident and fallings and have an important role in maxillofacial practice. Considerable aesthetic and functional deficiency is the most common problem in lower face traumas and also when the mandible fracture involves condyle development defects can be observed, because mandibular condyle is the development zone of lower face. The main aim applicable in children and adults is treatment with the least morbidity of mandibular function by providing anatomical stabilization of the bone segments. In conclusion, our clinical experiences, supported by the literature, show that oral and maxillofacial surgeon should take all treatment methods in consideration and choose the best possible method. In this study we present several clinical cases of mandible fractures with a 28 year experience. We finally provide our treatments methods and their results.

**Key Words:** Mandible fractures, orofacial trauma, surgical approaches, conservative treatment, condyle.

### OP120

#### Potentials of Ultrasound in the Diagnosis and Treatment of the Facial Fractures

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Computed tomography (CT scan) has almost substituted conventional X-rays in the diagnosis of facial trauma specially the fractures of the middle face. The main disadvantages of the CTscan are the patient's exposure to a high dose of radiation and the potential risk of development of cataract. Delay in releasing the patient from the machine in the emergency states may prove fatal. The use of ultrasound in diagnosis and management of facial trauma has been reported previously. Ultrasound has been used in diagnosis of the fractures in the different parts of the face with various degrees of success. It has also been used intraoperatively for assessment of fracture repositioning. The aim of this lecture is to describe the different uses of ultrasonography in the facial trauma.

**OP121****Evaluation of a Single Miniplate Use in the Treatment of Zygomatic Bone Fracture**Cyrus Mohammadi NEZHAD*Dental School, Oral and Maxillofacial Surgery Department, Shiraz, IRAN*

The aim of this non-randomized prospective study was determined and justifies minimally invasive therapy in this type of fracture. Nine Cases were treated by pre-cutaneous hook reduction and miniplate fixation along the frontozygomatic suture. Postoperatively, repositioning in terms of aesthetic and stability also bone ends approximation were assessed clinically and radiologically. The patients have been followed 6 to 33 months. Preoperative symptoms were subsided except infero-orbital sensitivity disturbances in one case. Postoperative complications were minimal and disappeared altogether. In this study orbito – zygomatic and blow out fractures were excluded. It can be concluded that the treatment of isolated zygomatic bone fracture according to aesthetic and functional requirements may be achieved by insertion a single miniplate at the lateral rim of orbit.

**OP122****Dental Injuries: A Retrospective Study (1986 – 2008)**Hilal ALAN, Gülten ÜNLÜ*Dicle University, Faculty of Dentistry, Dept. of Oral and Maxillofacial Surgery, Diyarbakır, TURKEY*

Dental trauma is one of the most serious oral health problems in active children and adolescents. Care of traumatized patients requires immediate initial emergency treatment followed by integrated procedures to restore damaged oral structures along with a subsequent trauma prevention strategy. Dentoalveolar injuries may present in isolation or are associated with other injuries (mandibular, zygoma fractures). Teeth may be knocked out, fractured, forced out of position, or loosened. Between January 1986 and January 2008, 538 patients with dentoalveolar injuries were treated in our clinic. In this study; the records of all patients were reviewed and analyzed according to; age, sex, treatment method, cause and type of injury. The cause of dental injuries in 330 patients was falling, in 144 patients was traffic accident, in 33 patients was animal kicking and in 31 patients was violence.

**OP123****Mandibular Fractures in Children: A Retrospective Analysis**Serhat ATILGAN, Behçet EROL, Ferhan YAMAN, Nezih YILMAZ*Dicle University, Faculty of Dentistry, Dept. of Oral and Maxillofacial Surgery, Diyarbakır, TURKEY*

**Summary:** Mandibular fractures are rare in the pediatric population and have different clinical features compared with those in adults. Two hundred and sixty children younger than 16 and with mandibular fractures were investigated by age, sex, type and cause of fracture, methods of treatment and associated injuries and complications. The boy-to-girl ratio was 3:5. Condyle/subcondyle fractures were involved in 52% of all mandibular fractures. In addition, symphysis/parasymphysis fractures were observed in 50.7% of all mandibular fractures. Intermaxillary fixation was the most common treatment method employed. No severe complications were observed.

**Key words:** Mandibular fractures, children, retrospective.

## ORAL ABSTRACT SESSION 4

### OP124

#### Use of C.T versus U.S. in Evaluation of Mandibular Distraction Wound

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**Purpose:** Distraction osteogenesis becomes one of the most important reconstruction armamentariums in management of mandibular deformities and deficiency disorders. The duration of consolidation period still one of the debatable issues among the clinical subjects. Evaluation of newly formed bone regarding quality and quantity is the corner stone to terminate the consolidation period safely. Various methods have been used to evaluate distraction callus including plain radiographs, computerized tomography and ultrasound. The purpose of this study is to correlate the computerized radiographic anatomy of distracted callus with ultrasound images and postulate the benefit of each.

**Materials and Methods:** Four adult patients (3 females and 1 male) underwent mandibular distraction (2 intra-oral appliances and 2 extra-oral appliances). The protocol consisted of five days of latency period and distraction at rate of 2mm/day. All patients were evaluated during activation, three months, six months and one year post distraction. Evaluation includes clinical examination, plain radiographs, computerized tomographic and ultrasound examinations.

**Conclusion:** Clinical monitoring of mandibular distraction wound can be successfully achieved though frequent use of US examinations. Although US provides surgeon with easy, cheap and non-invasive examination tool the use of computerized tomography is essential to be sure for the quality of distracted bone before removal of fixation.

### OP125

#### Transpalatal Distraction Using Bone - Borne Distractor: Clinical Observations, Dental and Skeletal Changes

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The aim of this clinical study was to analyze the outcome, complications, long-term results of transpalatal distraction (TPD) for the correction of maxillary transverse deficiency (MTD) and to assess skeletal and dental changes in sagittal, vertical and transversal planes through cephalograms and dental casts. 10 adult patients with MTD were treated with Transpalatal Distractor. Standart corticotomies and distraction protocols (except distraction rate) were used in all cases.

The complications during distraction and consolidation periods evaluated with a comprehensive clinical examination. Lateral and posteroanterior cephalometric films and dental casts were taken before surgery and at the end of consolidation period. The statistical analysis of cephalometric films and dental casts measurements were undertaken with a paired t-test.

The intraoperative and postoperative complications were encountered as pain during distraction period (n=3), damage to the central incisive teeth (n=2), loosening of the distractor (n=2), buccal displacement of the left alveolar segment (n=1) and wound dehiscence (n=2). After rapid distraction period (1 mm/daily), statistically significant expansion in bimaxillary base width, bimaxillary alveolar width and binasal width, were measured. Although pterygomaxillary disjunction was not applied, asymmetric skeletal expansion was evaluated statistically nonsignificant. The desired amount of distraction was reached in all patients. No recurrence was seen in the follow-up periods (12-41 month). According to the results of the presented study TPD was found as a clinically effective technique to expand in adult patients with MTD.

**OP126****Mandibular Distraction Osteogenesis with an Internal Curvilinear Device**

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Distraction osteogenesis is an effective technique for managing severe mandibular deficiencies. Distraction reduce the risk of relapse by both ensuring bone formation and adapting soft tissues. Craniofacial deformities often necessitate intervention in all three planes. The vectorial sum of the needed translation and rotation movements required for treating the deformity forms a piece of curve whose centre and radius is definite. Curvilinear distractor follows this curve to form an ideal shaped mandible and is able to treat a multiplanar deformity. In this case report clinical record of a patient aged 12 years 11 months with class II div 1 skeletal malocclusion owing to mandibular hypoplasia (ANB 11°, N-Perp-Pg :-18 mm) and having difficulty in speech due to excessive overjet (21 mm) is presented. Lateral cephalometric analysis revealed posterior mandibular rotation (Y-axis 64°, facial axis 85°). After presurgical fixed orthodontic treatment, distraction devices were placed under general anesthesia. Pursuing the latency period of 10 days, the rate of distraction was 1 mm a day and rhythm was 3 times (3x0.33 mm). After a consolidation period of 4 months the devices were removed. Mandibular distraction osteogenesis with an internal curvilinear device improved the facial proportions of the patient. Results obtained were relatively stable except very minor relapse observed in both sagittal and vertical planes in 1.5 year follow up time.

**OP127****Biomechanical Evaluation of the Consolidation Period of Alveolar Distraction Osteogenesis with Three-Dimensional Finite Element Analysis**

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**Purpose:** In this study, three-dimensional (3D) modeling and finite element analysis were used to determine the optimum consolidation period for implant loading under forces of different directions and amounts after alveolar distraction osteogenesis.

**Material and Method:** A 3D model of an atrophic edentulous alveolar crest was prepared. Distraction osteogenesis with the required bone height was simulated. After a consolidation period of 4, 8, 12 and 16 weeks, horizontal, vertical and oblique forces were applied to the conical endosseous implants embedded in the distracted bone. The effects of loading on the distracted cortical bone and the callus were evaluated in the 3D models by finite element analysis. To determine the appropriate consolidation period, displacement, Von Mises stress, principal maximum and minimum stress, and principal maximum and minimum elastic strain values were evaluated.

**Result:** After the 8th week of the study, the callus distributed the corresponding loads homogeneously, and displacement in the distracted cortical bone after distraction osteogenesis was minimal.

**Conclusion:** This result suggests that the ideal timing for implantation is after 8 weeks, and earlier attempts at implantation may lead to unsuccessful results.

**OP128****The Effect of Acute Callus Manipulation on Bone Formation**

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**Purpose:** Manipulations of the newly created regenerate using adjustable multiplanar devices during distraction osteogenesis may be necessary to correct the position of the mandible. Treatment of complex deformities may require preplanned major angulation. We sought to assess the effect of moulding the regenerate on bone healing.

**Materials and Methods:** Custom made devices fixed bilaterally in the corpus region of the rabbit mandibles. After the distraction period, we performed 15° moulding in the first day of consolidation period. Animals were killed after six week. Regenerats were evaluated by histomorphologic examination.

**Results:** Mineralization patterns were statistically different in the compressed and stretched zones.

**OP129****Evaluation of Vertical Alveolar Distraction Osteogenesis with Histological Analyses: Preliminary Results**

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Many augmentation techniques have been described to gain sufficient volume of bone to support osseointegrated dental implants. One of these procedures is the vertical distraction osteogenesis (VDO) method which demonstrates many advantages in treating alveolar bone deficiencies. In this prospective study, 10 patients with severely atrophic alveolar crests was treated by distraction osteogenesis technique.

The aim of this study was to analyse (I) the outcome of alveolar distraction osteogenesis for the correction of vertically deficient edentulous ridges by using intraoral distractors, (II) the results of dental implants that were placed in the distracted areas, (III) the quality and quantity of the bone that would form in the distraction gap. 3 months after consolidation of the distracted segments, implants were placed in the distracted areas. Three to 4 months later, after the connection of abutments, prosthetic loading of the implants was started. Clinical examinations concerning with dental implants included periimplantitis, and implant mobility. At the time of implant placement, bone biopsies was taken from the implant sites with trephine burrs and was evaluated for histologic analyses.

## ORAL ABSTRACT SESSION 5

**OP130****Cryptogenic Stroke and Parotid Tumor Surgery: Report of an Interesting Case**

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**Background:** Cerebral vascular accidents (CVA) after parotid tumor surgery have been rarely reported in the literature so far. Studies to date have not extensively shown an association between the presence of patent foramen ovale and cryptogenic stroke in patients 55 years of age or older. **Material and Methods:** We present an interesting case of a male patient 61 y.o.a. with unremarkable past medical history, who sustained a partial superficial parotidectomy with identification of the left facial nerve for the removal of a large Warthin's tumor of the left parotid gland, using continuous intraoperative facial nerve monitoring. Three hours after patient's uneventful return from the operating room, during his mobilization he suffered a stroke. Brain CT scan disclosed an embolic occlusion of the left middle cerebral artery and the patient transmitted to the ICU for further management and follow-up.

**Results:** Post-operative diagnostic work-up revealed that paradoxical embolism due to patent foramen ovale with concomitant atrial septal aneurysm was the cause of stroke in our patient. Five days after CVA the patient sustained decompressing craniotomy to prevent compression of the upper brainstem and incipient herniation. Sixty-seven days after parotid surgery and stroke, the patient was discharged having been significantly improved both kinetically and verbally, continuing his recovery with rehabilitation support.

**Conclusion:** Cryptogenic stroke though extremely rare might complicate the usually uneventful hospital course of a patient subjected to routine parotid tumor surgery.



**OP131****New Trend in the Management of Ameloblastoma**

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**Objectives:** Up till now the surgical management of ameloblastomas depend on the extension of the lesion radiographically and the histological findings. Meanwhile, there is controversy regarding the surgical techniques of different types of ameloblastoma. The aim of this study was to assess the degree of aggressiveness of the lesion cells to clarify the potential biologic behavior of those lesions using p53.

**Patients and Methods:** 17 cases (10 males and 7 females with age ranged between 13 and 67 year) has been operated in this study. Cases included primary, recurrent, and of malignant ameloblastoma. Immunohistochemical analysis was used to classify ameloblastomas into aggressive and non aggressive lesions. Surgical technique was done according the immunohistochemical result.

**Results:** The postoperative follow-up was accepted and no recurrence was observed in all cases. **Conclusion:** The study concluded that the histological and radiographical assessment is not enough for the final management of such cases and p53 is a unique approach to detect the biological behavior of the cells upon which surgery should be addressed.

**OP132****Osteochondroma of the Coronoid Process (Jacob's Disease) = A Case Report**

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Alper ALKAN

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In 1899 Jacob reported the pseudo-joint between enlarged mushroom shaped mandibular coronoid process and the zygoma that has been known as Jacob's Disease (JD). Main findings of JD are painless restricted mouth opening and elongated coronoid process of the mandible in panoramic radiographs. Management of JD involves coronoidectomy and surgical removal of osteochondroma. A 43 year old woman was referred to our clinic with complaint of painless restricted mouth

opening for the duration of more than 10 years. She had been previously misdiagnosed as temporomandibular joint (TMJ) dysfunction. Maximum mouth opening of the patient was 12 mm. A mushroom shaped enlarged coronoid process which was located under the zygoma was seen at computerized tomography (CT) views. Under local anesthesia, intra-oral coronoidectomy was performed with piezosurgery and the lesion was removed. Immediate postoperative mouth opening was 29 mm. Histopathologic evaluation of the lesion was consistent with osteochondroma. Symptoms of JD tend to be overlapped with ankylosis or dysfunction of TMJ. Panoramic radiographs of patients with restricted mouth opening should be examined cautiously and supported with CT scans if needed. Intra-oral approach is a favorable option in terms of shorter operation time, rapid healing, lack of scar formation and possible nerve damage. Piezosurgery provides a comfortable surgery even under local anesthesia for the patient and surgeon as well. However patients should be informed about intra-oral approach might be insufficient in some cases and needed to be combined with extra-oral approach intra-operatively.

**OP133****Nodular Fasciitis of the Head and Neck: A Case Report**

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Nodular fasciitis is a benign, reactive proliferation of fibroblasts in subcutaneous tissues commonly involving the deep fascia. The case of a 24-year-old female with a submandibular mass is presented. The patient was seen for evaluation of a slowly enlarging, non-tender, right submandibular mass of 6-month duration. The mass was only palpable clinically. The remainder of the physical examination was devoid of other abnormal findings. Past medical and dental history was non-contributory. Magnetic resonance imaging (MRI) revealed a well-demarcated mass in the right submandibular area. Fine-needle aspiration biopsy showed an abundance of fibroblasts. The mass was excised via an appropriately placed submandibular incision. Histopathologic examination revealed a lesion consisting of proliferating fibroblasts and myofibroblasts. Immunohistological studies confirmed the diagnosis of nodular fasciitis. There has been no evidence of recurrence 8 months postoperatively. Nodular fasciitis can present in an indolent or aggressive manner. Although

most commonly located on the extremities and the trunk, it is estimated that the head and neck region represents only 10 to 20%. In the head and neck it has been reported to occur in the skin, periorbita, eyelids, ear, nasal cavity, oral cavity, parotid gland, and upper neck. It needs to be differentiated from malignancy due to its occasionally very rapid growth, rich cellularity, and high mitotic activity. However, the condition is self-limiting, and proper diagnosis is essential to avoid unnecessary aggressive treatment. Recurrence rates vary from 1-6%. Some lesions have been reported to regress and disappear without treatment or even after partial excision.

### OP134

#### Conservative Treatment: Marsupialization or Decompression of Cystic Lesions of the Jaw

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**Objective:** Marsupialization or decompression has been used as a more conservative treatment form of treatment for a large cystic lesion to minimize the cyst size and to limit the extent of surgery. The technique that relieves the pressure within the cyst and causes some decrease in the size of the lesion. After reduction of cystic lesion size, enucleation or curettage is able to be performed successfully with less risk to adjacent vital structures.

**Patients and Methods:** Biopsy proven 5 cystic lesion and 2 cystic ameloblastoma were marsupialized before enucleation and curettage. Cavities were kept open by short length of a nazopharyngeal airway or custommade acrylic stents. The size of lesions were measured by using special radiographic technique and evaluated clinically.

**Results:** Cystic lesions' treated with marsupialization sizes were reduced. Teeth within the cyst were found to be upright and erupt.

**Conclusions:** Conservative treatment approach; marsupialization or decompression is effective treatment for large cystic lesions because of reducing the possibility of pathological fracture of the mandible or the need for resection. Marsupialization requires a cooperative patient who will irrigate the cavity and keep it open.

### OP135

#### Myositis Ossificans: Medial Pterygoid Muscle

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**Introduction:** Myositis ossificans of the masticatory muscle is an uncommon finding. Case of ossification of the lateral pterygoid and masseter muscle has been reported, (Kostrabala & Talbot 1948, Croodsell 1962), but it is rare in the medial pterygoid muscle. Myositis ossificans is generally due to classification of an intramuscular hematoma following trauma and progressive ossification. Myositis ossificans has been considered to be a causative factor for extra-articular ankylosis of the temporomandibular joint (TMJ).

**Case Report:** A 7-year-old man seen at the Department of Oral and Maxillofacial Surgery of Mashad UNV, on 2007. Had been unable to open his mouth, (more than 5 mm), for the last 2 years. The patient had a trauma approximately 3 years ago and a swelling over the left mandibular region that spontaneously absorbed. Clinical examination was significant for severe trismus, with a maximum interincisal of 5 mm. Panoramic radiographs and axial and coronal computed tomography (CT) scans were obtained. CT scan revealed ossifying bar extending from the maxillary tuberosity region to the ramus of the mandible, and fusion between the lateral pterygoid plate and medial surface of the left mandibular ramus. TMJ ankylosis because of the myositis ossificans of medial pterygoid was diagnosed. A lateral ramus incision was made and calcifications removed with osteotomes and rongeurs. An interincisal opening of 45 mm was achieved at the time of operation. Post operation course was normal and no complication was seen.

### OP136

#### Hyalin Ring Granuloma Report of Two Cases

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**Introduction:** Hyalin ring granuloma is a lesion which is very rare in oral region. It occurs when an odontogenic cyst drain away to mouth and foreign materials (such as food) accumulate into the cyst cavity.

**Material and Methods:** Two patients with painless

swelling referred to our clinic. An excisional biopsy was made under sedation and local anesthesia.

**Results:** Histology revealed as Hyalin Ring Granuloma. There is no sign of recurrence in our post-surgical follow up mean of 20 months.

**Conclusion:** The etiology and terminology of this distinct oral lesion are controversial. Hyalin ring granuloma might have grown from hyaline degeneration of periodontal ligaments independent from food remnants.

## ORAL ABSTARCT SESSION 6

### OP137

#### **Mental Nerve Paresthesia Induced by Periapical Pathosis of the Canine Tooth**

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**Introduction:** Sensory disturbances such as paresthesia, anesthesia, hypoesthesia, and hyperesthesia may be present in the oral cavity. Paresthesia is defined as a burning or prickling sensation or partial numbness caused by neural injury. Paresthesia in dentistry can be caused by local or systemic factors.

**Methods:** A 28-year-old men was referred to Selcuk University, Faculty of Dentistry, Oral & Maxillofacial Surgery Clinic. The patient was with a complaint of slight swelling and numbness of the left skin mucosa of the lower lip and left chin. The patient was prescribed for antibiotics and analgesics in his initial visit. Because of the unmanagement of resolution of mental nerve paresthesia, 9 weeks after completion of root canal treatment of canine tooth, the tooth was decided to be operated with apical resection.

**Results:** The treatment and complete resolution of a mental nerve paresthesia stem from apical pathosis of mandibular canine tooth was managed according to our treatment protocol with in 10 weeks after initial visit. Subsequent to 3 years follow up period, the patient was still in comfort without any previous symptoms.

**Conclusion:** In such kind of cases, as a treatment plan, once the patients should carefully be examined, then managing the desired outcome can be reached within the shortest period of time, with determining the most suitable treatment plan according to the etiology of the pathosis.

**OP138****The Evaluation of Fast - tracking Concept in Oral and Maxillofacial Surgery Clinic**

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**Introduction:** Ambulatory (outpatient) anesthesia is administered with the dual goals of rapidly and safely establishing satisfactory conditions for the performance of therapeutic or diagnostic procedures while ensuring rapid, predictable recovery with minimal postoperative sequelae. Bypassing the PACU some patients can be discharged home within one hour after surgery which is known as fast-tracking concept.

**Methods:** We operated 114 patients under fast tracking concept between august 2007 and april 2008. The type of the procedures included multipleextractions, dental implant placements, oro-antral fistula operations, benign lesion operations.

**Results:** We did not have any severe complication nor unexpected readmission from the discharged patients.

**Conclusion:** In the current era of cost containment, oral and maxillofacial surgeons must control costs while reducing morbidity and mortality. A fast-tracking protocol can produce shorter length of stay in hospital without compromising quality of care.

**OP139****A Preliminary Study of Evaluating Stress Factors among Turkish Oral and Maxillofacial Surgeons**

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Aydın GÜLSES, Metin ŞENÇİMEN, Mesut AKYOL,  
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**Purpose:** The aim of the present study is to asses the causative and the contributory factors leading to stress among Turkish Oral and Maxillofacial Surgeons (OMS).

**Material and Method:** A mailed questionnaire was completed by 73 (female n: 20, male n: 53) randomly selected OMS who worked at Gülhane Military Medical Academy (n: 14), Hacettepe University (n: 11), Ankara University (n: 23), Baskent University (n: 13) and Gazi University (n: 12).

**Results:** Many factors contribute to increase stress for oral and maxillofacial surgeons in Türkiye. The intensive and most frequently filled up items were (ranked): 1) inadequacy of surgical equipments and facilities (21.9%), 2) things to do besides patient management (16.4%), 3) incompetent relationships with other colleagues (15.1%), 4) legal factors (13.7%), 5) the presence of patients' attendants at the working area (13.7%). The most ineffective factor influencing stress levels of the surgeons was the economical statue of the patient.

**Discussion:** This study highlights the presence of significant difficulties for OMS due to the inadequate surgical facilities and the need to develop standardizations and forensic arrangements to define the professional limits of oral and maxillofacial surgery in Türkiye.

**OP140****Use of Local Steroid Injections for Management of Trigeminal Neuralgia**

Kubilay IŞIK, Rafi DOĞAN

*Başkent University, Implementation and Research Center, Konya, TURKEY*

Trigeminal neuralgia is a debilitating pain syndrome and its etiology is not clear. Primary management goal is usually to improve the life quality of the patient. Although medical treatment options, such as use of carbamazepine, are effective for many patients, they are inadequate for some cases. Surgical techniques have a high success rate but they also have morbidities and some patients are not willing to undertake such operations. Thus, less invasive methods, such as local injections of alcohol or phenol, are widely used. In this presentation, we describe the technique of local steroid injection for management of trigeminal neuralgia and report our results.

**OP141****Evaluation of Local Anesthesia Uses in Maxillofacial Region Surgery**

Qais H. MAUSSA

*Babylon University, AL-Hilla Teaching Hospital, Iraq-abylob Collage of Dentistry, Babylon, IRAQ*

In this study evaluate the uses of local anesthesia in treatment of widely range maxillofacial region major & super major surgery to involve (reduction of 22 cases of zygomatic bone fractures by Gillies approach, 14 cases

of superficial parotidectomy, resection & reconstruction by Gillies fan& Karapandzic flaps of 11 cases lips tumors, 8 cases facelift, ...)

**Result:** The uses of local anesthesia in maxillofacial region is suitable technique for many major & super major surgery depend on the selection of patients, site of lesion & experience of surgeon. With lesser postoperative problems and less analgesia requirement. Local anesthesia may be preferred to other methods of anesthesia. It's much less expensive, quick and carries little morbidity It's avoid the risk of general anesthesia especially those complain from systemic diseases as (cardiovascular, diabetics, respiratory, ---) the patient is conscious during surgery. Therefore, the patient can maintain his own airway, contain his own gastric secretions, unlike general anesthesia, patients are awake and usually have a smooth postoperative course. This allows for less nursing care after procedures, and shorter recovery times facilitating outpatient surgery.

## OP142

### Evaluation of Anxiety and Depression Levels of Patients at Departments of Medical and Dental Faculty

Birkan Taha ÖZKAN, Gülsün YILDIRIM, Dilek KIZILOĞLU, Abdullah KALAYCI, Ercan DURMUŞ

*Selçuk University, Faculty of Dentistry, Dept. of Oral and Maxillofacial Surgery, Konya, TURKEY*

**Introduction:** Dental fear (DF) may cause frequent and serious problems for both the dentist and patient, and it often gives rise to a number of deleterious reactions. Anxiety and depression are being the most frequent and common seen among the reactions.

**Patients and Methods:** The patients who were included the study were divided into 3 groups. The first group (surgery group) was consisted of 100 patients who were waiting for undergoing the surgical procedure under local anesthesia, in Selçuk University, Faculty of Dentistry, Department of Oral&Maxillofacial Surgery (O&MFSD). The second group (conservative group) was consisted of 100 patients who applied for the dental treatment in the departments (Endodontics, Restorative Dentistry, Orthodontics, Prosthodontics) with the exception of O&MFSD in Faculty of Dentistry, the third group (general anesthesia group) was consisted of 100 patients who were waiting for undergoing surgical operations under general anesthesia in different clinics in Selçuk University, Meram Medical

Faculty. The patients were asked to fill up the Hospital Anxiety and Depression (HAD) scale just before the procedure.

**Results:** As a result, there was no statistically significant difference between surgery and conservative groups with the evaluation of anxiety and depression. Anxiety and depression levels were higher in 3rd group compared to 1st and 2nd groups.

**Conclusion:** Eventhough dental fear adversely affects the patients' psychology and so common among the patients, the surgical procedures which will be done under general anesthesia markedly increase the level of anxiety and depression.

## OP143

### A New Model for Intra - Oral Suturing

Ahmed H. MAREI, Philip HEINZELMAN, Brian PHEE

*University of Saskatchewan, College of Dentistry, Director, Division of Oral & Maxillofacial Surgery, Saskatoon, CANADA*

**Rationale/Background:** Suturing is a skill utilized by all dentists at some point in their careers. Mastering this skill is vital to ensure that the dentist will have one of the necessary tools in order to broaden their scope within the practice of dentistry. In order to obtain mastery, various learning models have been put forth, however none pertain specifically to dentistry. We believe that a learning model can be easily developed and implemented that will allow students an opportunity to practice suturing on the already purchased anatomically correct dentoforms, which will be both cost effective and easily accessible.

**Objective:** To design a new suturing learning model that will allow for student mastery of suturing techniques using materials that will more closely mimic human intra-oral suturing than does the previous models.

**Materials and Methods:** Materials already available to the public and currently used in the medical health field (e.g. semipermeable wound dressings) were tested to practice currently used suturing techniques (i.e. Single interrupted, continuous, continuous inter-locking, horizontal mattress and figure 8 patterns). These materials were judged on the following criteria:

1. Adaptability to dentoform.
2. Ability to not fray or tear when incised and sutured.
3. Ability to be reused.
4. Cost Results and

**Conclusion:** A model has been developed that utilizes cost-effective materials to be used in the preoperative clinic that will allow for student mastery of suturing techniques. Based on existing literature we believe the new learning model is more efficient and applicable to intra-oral suturing.

## ORAL ABSTRACT SESSION 7

### OP144

#### **Non-vascularized Bone Grafting versus Microvascular Fibula Transfer in Reconstruction of Mandibular Defects**

Ashraf Abdel Fattah MAHMOUD

*Al Azhar University, Cairo, EGYPT*

Reconstruction of mandibular defects is a major concern to the patients, as the reestablishment of continuity with maintenance of a normal maxillary-mandibular relationship appears to be fundamental in producing adequate cosmetics, as well as providing structural support to allow satisfactory function. Forty patients were enrolled in this study, their ages ranged from 6 -55 years with a mean of 30.5 years. They were complaining from massive involvement of their lower jaw by osteomyelitis, posttraumatic defects, odontogenic cysts, fibro-osseous lesions and neoplasms. Diagnosis was performed by thorough clinical examination supplemented by plain radiographs, CT scans and 3D. The mandible has been stabilized primarily by the use of reconstruction plates after resection to prevent muscle contraction, fibrosis and facial deformity. Mandibular reconstruction was performed either in the same session or delayed when recurrence or infection was in doubt. Autogenous bone grafts were harvested from ilium and ribs which are suitable for reconstruction of small to medium sized defects (up to 6 cm length) while the longer defects were a good candidate for micro-vascular fibula transfer. All patients were operated upon and followed up for a period ranged from one year up to 4 years. Their results were registered with the correlating photographic and radiographic analysis for presentation.

**OP145****Reconstruction of Maxillofacial Region;  
Various Options**Riaz AHMED*King Edward Medical University, Lahore, PAKISTAN*

**Introduction:** Reconstruction of maxillofacial region is challenging problem world over. Many local and regional flaps have been used with various successes, but the exact form, consistency and colour matching was a big problem. Tissue transfer with low vascularity is another problem because oral environment is very hostile and Post- Operative Radiation Therapy in case of tumor ablativ surgery. In this era with advent of free tissue transfer with Microvascular anastomosis, has solve this problem to the greater extent. Now we are able to transfer soft tissue with matching thickness, consistency and vascularised .hard tissue to combat with the hostile environment of oral cavity and Post- Operative radiation therapy.

**Patients and Methods:** 1022 cases were included in this study from 1999 to 2007.

**Results:** In bony reconstruction success rate with iliac crest was 65% while free fibular grafts showed 85% success rate when used for mandibular reconstruction. The success rate of Rib grafts were 70% as 30% of grafts showed late resorption, while calvarial bone grafts were 98% successful. In soft tissue reconstruction the success rate of Deltopectoral fasciocutaneous flap was 65% while Pectoralis major myocutaneous flap showed 97% survival rate. Pectoralis major with a portion of sternum maintained good radio-opacity on radiographs, when used for composite mandibular reconstruction. Forehead flaps were 87% successful, while other flaps showed variable results.

**Discussion:** In form of consistency thickness as well as reliability the free tissue transfer with micro vascular anastomosis proved to be the best option. Moreover for volume and bulk replacement pectoralis major myocutaneous muscle

**OP146****Use of Silicon and Negative Pressure in the Treatment of the Contracted Orbital Socket**Mario GOISIS, V. BONANNO, A. BAJ, F. LAGANÀ, A.B. GIANNI, R. MONTEVERDI*IRCCS Galeazzi, Milano, ITALY*

**Introduction:** Based on the pathology of the anophthalmic socket contraction, two different classes of patients can be recognized:

Class I: Those who only have eye socket contraction with normal orbital volume.

Class II: Patients who have inadequate socket lining, as well as orbital volume deficit. A simple technique to treat these classes of patient is described.

**Methods:** A 3 1/2 year study of 11 patients with socket contraction was conducted. 6 patients were class I, 5 were class II. The causative pathologies included 4 retinoblastomas, 2 congenital abnormalities and 4 childhood traumas. The surgical treatment was a skin or mucosa graft for class I, a dermofat graft for class II. A simple technique based on a silicon stent and a negative pressure between the graft and the recipient bed was used in all of patients.

**Results:** The average duration of follow up was 18 months (range 4-42 months). All patients are able to wear a prosthetic eye with comfort and a good cosmetic appearance.

**Conclusion:** The choice of treatment of socket contraction should be established according to the degree of orbital volume deficit and the amount of residual conjunctiva . In the case of severe volume deficit, the use of dermofat graft can expand the socket and can augment orbital volume.

**OP147****A Retrospective Review of Complications Occurred in Maxillofacial Procedures Performed by Other Surgical Disciplines**Aydın GÜLSES, Kerim ORTAKOĞLU, Kemal Murat OKÇU, Yılmaz GÜNAYDIN, Ramazan KÖYMEN, Yavuz Sinan AYDINTUĞ*G.A.T.A. Dentistry Sciences Center, Dept. of Oral and Maxillofacial Surgery, Ankara, TURKEY*

**Purpose:** The purpose of this study was to investigate contributory factors leading to complications in the maxillofacial surgery performed by other surgical disci-

plines and to point out the value of multidisciplinary management for avoidance of complications.

**Materials and Methods:** This retrospective review includes a serial of complication cases (n=17 male) treated at the Dept. of Oral and Maxillofacial Surgery of Gülhane Military Medical Academy between 2001 and 2007 years. Panoramic radiographs of all patients were obtained routinely before secondary correction. The etiology of cases consisted of gun shot injuries, military training and sports injuries, assaults, falls and road traffic accidents. Orthognathic surgery, mini-plate osteosynthesis for trauma, tooth reimplantation and bone grafting had been performed by other surgical disciplines.

**Results:** Osteotomy induced teeth fracture (n=1), malocclusion (n=2), inadequate fixation (n=5), unsuccessful bone grafting (n=6), teeth in fracture and osteotomy line (n=2) and reimplantation failure (n=1) was assessed from patient examination and radiographs. 17 patients were re-operated at our department to correct the complicated cases. Secondary corrective procedures were fixation with mini and reconstruction plate, occlusal molding, intermaxillary fixation, mini-plate removal, distraction osteogenesis, vestibuloplasties, tooth extractions, and bone graftings.

**Discussion:** The maxillofacial region is the area of interest among different medical disciplines due to increasing cosmetic and reconstructive demands. However, higher ratios of complication are observed generally when performed by inexperienced surgeons who belong to other disciplines. Prevention of such complication is possible only with dual cooperation of other disciplines with the oral and maxillofacial surgeons.

## OP148

### A 5-Year Experience in Nasal Reconstruction with the Forehead Flap and Preoperative Tissue Expander

Ata GARAJE, Ali A. KHERADMAND

*Tehran University of Medical Sciences, School of Medicine, The Cancer Institute, Dept. of Head and Neck Surgical Oncology and Reconstructive Surgery, Tehran, IRAN*

Because of its ideal color and texture, forehead skin is acknowledged as the best donor site with which to resurface the nose. However, all forehead flaps, regardless of their vascular pedicles, are thicker than normal nasal skin. Stiff and flat, they do not easily mold from a two-dimensional to a three-dimensional shape

and closure of the donor site is always a challenging problem. Traditionally, the forehead is transferred in two stages. At the first stage, frontalis muscle and subcutaneous tissue are excised distally and the partially thinned flap is inset into the recipient site. At a second stage, 3 weeks later, the pedicle is divided. However, such soft-tissue "thinning" is limited, incomplete and piecemeal. To overcome these problems, the technique of forehead flap transfer was modified. An extra operation was added before transfer and division: Tissue expansion. This modality gives us the opportunity of freedom in thinning and molding. In the other hand, we have not any problem in primary closure of donor site. In this lecture, we will explain our experiences in this field for more than 5 years with 50 patients.

## OP149

### The Skull is the Best Donor Site for Bone Grafting

Abdel Nasser A. SOUKARIEH

*Arab Association for OMFS, Riyadh, SAUDI ARABIA*

The skull is the best donor site for bone grafting in all kinds of maxillofacial surgery because of the following reasons:

1. It has a good bone quantity.
2. This site has a good quality of bone cortex and spongy bone.
3. It has a minimum postoperative side effects: > Less pain (practically minimal) > Less swelling > It only requires 1-2 days of sick leave for the patient. In other donor sites patients have to stay in the hospital for approximately 5-8 days, which will require more sick leave duration. > No esthetic scare.
4. Less cost of the operation (due to minimal time of hospitalization).
5. No bone resorption after grafting.
6. It only has few difficulties: > There is psychological obstacle. > If we want to do complete mandibular reconstruction we cannot use the skull as a donor site. We advise all surgeons to try this site.



**OP150****Use of Deep Temporalis Fascia for Radix Augmentation**Rozina Besharati ZADEH*Tehran, Iran*

**Introduction:** Radix modification is an integral part of planning all rhinoplasties. the most surgeon ignore the radix area when the final result can be seriously changed by this error of omission. radix area and the nasion are the set point for the nasofascial and nasofrontal angles. radix augmentation leads less need to dorsal reduction thereby maintaining both dorsal height and more natural nose. radix augmentation has been done since 1930 using a variety of material including excised dorsum, concha, dermis and fascia. in our experience use of septal cartilage was accompany with excessive visibility in about 50 % of patient. use of alar cartilage and crushed cartilage reduced visibility to 20%. subsequently we used deep temporalis fascia as recommended by miller 1 and Daniel 2 and problems decreased to even less than 1%.

**Method:** The need to radix augmentation is evaluated when the patient sitting. the amount of tissue is estimated. if more than 3mm augmentation is needed, then crushed cartilage especially from excised alar cartilage could be included inside of temporalis fascia such as feathers in pillow. A 5x5 cm of deep temporalis fascia is sufficient for complete radix augmentation. up to 3mm. a 2.5cm incision anterior to the auricle will suffice for harvesting the graft. the detail of harvesting and inserting will be discussed .

**Results:** with use of fascial radix grafts the revision rate is minimal. visibility of radix grafts as seen with all types of cartilage is decreased and only concern is undercorrection that lead us to a 25% over correction whenever this technique is used. with 30 month follow up graft visibility or absorption was minimal.

ments have been introduced for orbital decompression and lid elongation with palate graft.

**Materials and Methods:** 18 patients were included in this study.

**Results:** Both the immediate and long term morphological and aesthetic results were good in all patients.

**Discussion:** Two 4 MHz instruments are necessary to perform Graves' surgery: RF Orbital Decompression Elevator and Radiosurgical Palate Graft Mucotome.

**OP151****The Management of Graves' Ophthalmopathy with Radiosurgery**Mario GOISIS, V. BONANNO, M. GUARESCHI, A. BAJ, AB. GIANNI, R. MONTEVERDI*IRCSS Galeazzi, Milano, ITALY*

**Introduction:** In patients with Graves' ophthalmopathy, surgery is traditionally performed with scalpel, scissors and forceps. Recently, new radiofrequency (RF) instru-

## ORAL ABSTARCT SESSION 8

### OP152

#### Early Detection of Oral Cancer. What should the Dentist do?

Nazar TALABANI

*University of Sulaimani, College of Dentistry, Sulaimani, IRAQ*

Oral cancer occurs in all sites in the oral cavity. It remains one of the most debilitating and disfiguring. It puts the dental team with obligation to save life. Oral cancer ranks one of the top ten of all cancers of the body. Prevention, screening, early diagnosis and subsequent early treatment are essential in reducing the incidence in oral cancer. Early detection programmes of cancer control are based on the fact that the earlier the cancer is diagnosed; the better the out come will be in terms of increased survival rate and reduce mortality. The early signs and symptoms of oral cancer may resemble several benign lesions in the mouth. Accordingly, oral cancer may be misdiagnose or overlooked at its early stages. Dentists, who are the first clinicians to see oral cancer, should be familiar with the clinical appearance of early oral cancer.

### OP153

#### Tnm Sttus of Oral Squamous Cell Carcinoma Patients at the Time of Diagnosis in a Sample of Pakistani Patients

Irfan SHAH

*Army Medical College / AFID (NUST), Rawalpindi, PAKISTAN*

In Pakistan most patients with oral squamous cell carcinoma are diagnosed late in the course of their disease and therefor carry poor prognosis. In this paper I will present an initial report (100 patients) of a larger prospective study (500 patients) giving the TNM status of oral squamous cell carcinoma patients at the time of their diagnosis. Standerd protocols of measuring the size of the primary Tumor (T), regional lymph Node involvement (N) and distant Metastases (M) have been used. In addition the reasons for late presentation / diagnosis have been investigated and will be discussed.

### OP154

#### Craniofacial Fibrous Dysplasia of the Orbital Region

Reza TABRIZI

*Tehran, IRAN*

**Purpose:** Craniofacial fibrous dysplasia(CFD),involving the orbital region often is challenging to treat because of the proximity of neurovascular and ocular structures. This article presents the surgical experience with 3 patients.

**Patients and Methods:** Three Patients in range 11 to 21 years ,who had undergone surgery for CFD of orbital region.All patients had progressive complaints of deformity, parasthesiaor visual disturbance.The primary indications for surgery were restoration of ocular function and secondary were aesthetically problems. Surgery generally involved extensive tumor excision in all patients with immediate reconstruction with autogenous bone. All patients received preoperative corticosteroids. We followed up patients at least a year.

**Results:** There patients experienced relief of their sensory and visual disturbance. Significant improvement was seen in facial appearance and all patients also felt that there had been improvement aesthetically. We did not have any serious complication pre and post operation. Improvement in IOP was seen in ophthalmologic evaluation in all patients.

**Conclusion:** We suggest conservative treatment for fibrous dysplasia unless involvement of vital structure as orbital region. Early surgery to address progressive sensory disturbance is recommended so as to avoid the hazards of late-stage decompression. The risks of surgery must be weight against the benefits of achieving a more functional and aesthetic results. Immediate reconstruction is necessary for improvement functional and aesthetic problems.long-term neuro-ophthalmologic monitoring is essential.

### OP155

#### The Prognostic Significance Assessment of Ki - 67, MCM - 2 and p53 Proliferation Markers in Dysplasia and Oral Squamous Cell Carcinoma

Gökhan TÖRE, Kemal ŞENÇİFT, Nurhan GÜLER, Nil COMUNOĞLU

*Yeditepe University, Faculty of Dentistry, İstanbul, TURKEY*

Tumor markers are precursor molecules in clinical assessment of diseases and determination of prognosis,

achieving to conceive the accurate tumor biology. This study was planned to determine the prognostic significance of Ki-67, MCM-2 and p53 proliferation markers in oral dysplastic lesions and oral squamous cell carcinomas (OSCC). The study group was consisted of 40 specimens of dysplasia and OSCC taken from 40 patients (17 females, 23 males) between the ages 32-79 ( $62.02 \pm 12.74$ ). 10 healthy oral mucosa were served as control group. Ki-67, MCM-2 and p53 expressions in OSCC were significantly higher than the expressions in controls ( $p < 0.001$ ) and dysplasia group ( $p < 0.05$ ). A positive correlation was found between the mean expressions of Ki-67 and MCM-2, and also MCM-2 and p53 in OSCC ( $p < 0.01$ ). Ki-67 expression in mild dysplasia ( $13.8 \pm 5.6$ ) was statistically lower than the expression in moderate dysplasia ( $19.83 \pm 6.91$ ),  $p = 0.047$ . There was no statistical difference between expressions of MCM-2 ( $p = 0.94$ ) and p53 ( $p = 0.54$ ) in both grades of dysplasia and between the mean expressions of Ki-67 ( $37.35 \pm 16.43$ ,  $39.5 \pm 24.47$ ) and MCM-2 ( $28.13 \pm 10.3$ ,  $36 \pm 20.21$ ) in well and moderately differentiated OSCC ( $p < 0.05$ ). p53 expression of OSCC localized at mandible ( $48.92 \pm 25.63$ ) was statistically higher than the expression at maxilla ( $24 \pm 16.22$ ) ( $p < 0.05$ ). p53 expression in well differentiated OSCC ( $33.17 \pm 20.98$ ) was statistically lower than its expression in moderately differentiated OSCC ( $53 \pm 25.99$ ) ( $p < 0.05$ ). We conclude that Ki-67 expressions reveal more significant outcomes when compared with MCM-2 and p53 expressions. We suggest that Ki-67 marker is more reliable in distinguishing the grades of dysplasia than the others we examined.

### OP156

#### Role of the Prosthodontist in the Management of Maxillofacial Tumors

Azad Ali AZAD

*Armed Forces Institute of Dentistry, Oral & Maxillofacial Surgery Dept., Rawalpindi, PAKISTAN*

Orofacial tumors, especially malignant ones need aggressive team management for optimal results. While accurate/timely diagnosis and elimination of disease may be important objectives, rehabilitation of the patient to optimal social and functional performance may be equally necessary. For a successful rehabilitation of these individuals, reconstructive oral and maxillofacial surgery and prosthodontics must collaborate closely

and synergistically. Besides medical and psychological findings, functional and esthetical aspects need to be taken into account giving a particular concern to biopsychosocial aspect of the individual. The Prosthodontist starts playing his/her useful role before surgery (in planning phase), during surgery (immediate obturators) and post surgically in treatment/definitive rehabilitation phase. Various Prosthodontic appliances for radiation therapy/ protection of tissues and management of trismus are also used. This presentation shall encompass a general perspective of topic and results of a study describing the patterns of maxillofacial defects, the histopathological type of tumors involved and the types of prostheses provided at Armed Forces Institute of Dentistry, Pakistan for the last 10 years.

### OP157

#### Are We Over-Operating on Managing Benign Parotid Tumors?

Ehab SHEHATA

*Alexandria University, Dental Department, TAIF, KSA, SAUDI ARABIA*

**Introduction:** Benign tumors of parotid glands (BTP) constitute about 80% of parotid tumors. The most common BTP is pleomorphic adenoma (PA). Some studies had shown that extracapsular dissection (ECD) is an alternative approach to superficial parotidectomy (SP) for BTP.

**Purpose:** To review literatures and to study the efficacy of ECD as surgical treatment modality for management of BTP.

**Patients and Methods:** 18 patients diagnosed as having BTP were treated by ECD. The diagnosis was achieved primarily by clinical presentation and secondarily by FNA and radiological means (US, CT or MRI). Inclusion criteria for ECD of the parotid tumor were discrete lump, mobile, 2 - 4 cm in diameter or with clinical / histological evidence of being benign mass. While exclusion criteria for ECD technique were fixed lesion, evidence of VII n palsy, or lump of more than 2 cm in diameter. All cases were treated by single surgeon. Follow up period was ranging from 5 month to 6 years.

**Results:** 16 patients had the tumors located in the superficial lobe of the parotid gland. 2 patients had their lumps extended deeply, between the VII n. branches into the deep lobe of the gland. Pathology of the parotid tumors consisted of 13 PA, 3 warthins tumors, 1 monomorphic adenoma and 1 benign epithelial cyst.

None of patients had intraoperative capsular rupture. 3 patients had transient VII n. palsy. None had permanent insult of the VII n. There were no recurrences within the follow up period.

**Conclusion:** ECD seems to be an alternative to superficial parotidectomy for the majority of parotid tumors. It is associated with reduced morbidities with no oncological compromise.

## OP158

### Osteochondroma of the Coronoid Process: A Case Report

Christos A. SKOUTERIS, Kiki C. MARTI

*University Of Athens, Athens, GREECE*

Osteochondroma is the most common benign neoplasm of bone. In the craniomaxillofacial area it can occur in the cranial base, posterior maxilla, maxillary sinus, and in the mandibular condyle, ramus, body, and symphysis. A 23-year-old white female with a 4-year history of restricted mouth opening is presented. The patient had been treated with occlusal splints by a temporomandibular joint (TMJ) specialist based on an erroneous clinical diagnosis of anterior disk displacement without reduction in the right TMJ and was to undergo arthrocentesis by an oral surgeon. The patient seeking further medical advise presented to our clinic with an interincisal distance of 18 mm, slightly restricted right lateral mandibular excursion, and limited protrusion, with no deviation, clicking, or pain.

Review of the original panorex and computed tomography (CT) scans revealed an elongated right coronoid process with a round radiopacity at its tip. TMJ magnetic resonance imaging (MRI) showed no disk pathology. Based on the diagnosis of osteochondroma, a coronoidectomy was performed via an extraoral approach. Immediate postoperative interincisal distance was 35 mm. Following 3 months of physiotherapy, the patient maintains a 45 mm interincisal space 2 years postoperatively. Osteochondroma of the coronoid process is rare. It usually presents as a unilateral mushroom-shaped enlargement. Ages between 10-30 years are mostly affected. Probably arises from the periosteum which forms areas of metaplastic cartilage. Joint formation with the zygomatic arch has been described as Jacob's disease. Coronoidectomy is the treatment of choice via an intraoral, extraoral, hemicoronal, or bicoronal approach based on clinical presentation.

## OP159

### Post Traumatic Marjolin's Ulcer of the Mandible (The First Reported Case of Malignant Fibrous Histiocytoma Arising Following a Traumatic Event in the Mandible)

Ali Hossein MESGARZADEH,

Ramin Mostofizadeh FARAHAANI, Nathaniel TREISTER

*Tabriz Medical Science University, Tabriz Faculty of Dentistry, Tabriz, IRAN*

A chronic wound which undergoes malignant transformation is referred to as Marjolin's ulcer. It is estimated that nearly 1.7% of chronic wounds show malignant transformation. The malignant degeneration of long standing idiopathic bone infarct into malignant Fibrous histiocytoma has been reported by Abdelwahab If, Et Al in 1988. We present a rare manifestation of a chronic mandibular wound with traumatic diathesis. Our patient mentioned a history of physical trauma to mandibular symphysis 12 mouth ago. then it transformed to a malignant fibrous histiocytoma. To the best of knowledge, it is the first reported case of MFH arising following a chronic wound with a traumatic diathesis in the mandible.

## ORAL ABSTRACT SESSION 9

### OP160

#### Evaluation of Botox versus Ultrasound Therapy in Treatment of Myofascial Pain Dysfunction Syndrome (Mpds)

Mohammed Ahmed EL-SHOLKAMY

Mohammed Saed HAMED, Amr Aly EL-SWIFY

*Suez Canal University, Faculty of Dentistry, Oral & Maxillofacial Surgery Dept., Cairo, EGYPT*

**Introduction:** As MPDS lacks a radical line of treatment, it needs innovative approaches. We aimed to compare a new treatment (Botox injection) versus a commonly used therapy (ultrasound therapy).

**Methods:** Twenty patients with MPDS were divided into 2 equal groups. Group 1 received 50 units Botox injection in each masseter muscle. Group 2 received 2 MHz ultrasound therapy, twice weekly. EMG for masseter muscle was performed pretreatment and at the end of study period. The following parameters were assessed pretreatment and post-treatment at 2-week intervals throughout a total study period of 8 weeks: • Visual analogue scale (VAS) pain scores. • VAS functional scores for chewing, yawning, and talking. • Interincisal opening • Tenderness to palpation records for masseter, temporalis, lateral pterygoid muscles and TMJ capsule.

**Results:** There was significant difference between pre-treatment and post-treatment values for all parameters for both groups. The EMG records showed significant difference between pre and post-treatment records for spontaneous right and voluntary left records in group 1 patients.

Comparison between post-treatment values of both groups showed significant differences for chewing, yawning, and tenderness to palpation records for left masseter muscle and TMJ capsule. Comparison between EMG post-treatment values of both groups showed significant differences for spontaneous and voluntary records right & left.

#### Conclusions:

1. Both methods proved efficacy in management of MPDS.
2. Botox proved to be superior

### OP161

#### Cytokine Polymorphism in Temporomandibular Joint Ankylosis

Aysegül Mine TÜZÜNER, Zeynep Ceren KARAHAN, Reha S. KİŞNİŞÇİ

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Several pro-inflammatory cytokines, such as tumor necrosis factor (TNF)- $\alpha$ , interleukin (IL)-1 $\beta$ , IL-6, IL-8 and interferon (IFN)- $\gamma$  have been detected in the synovial tissue obtained from patients with internal derangement (ID) and osteoarthritis (OA) of the temporomandibular joint (TMJ). These cytokines have been thought to be involved in the pathophysiology of the TMJ ID ) is the key mediator of inflammation.a (TNF-aand OA. Tumor necrosis factor - gene (TNF2) isaThe G to A substitution at the -308 position of the TNF- . In this study, we investigated thea responsible for the higher levels of TNF- -308 G/A polymorphism. In this study 7a association between TMJA and TNF- temporomandibular joint ankylosis patients who had undergone surgery were investigated. DNA was extracted from the venous blood samples of the patients. gene covering the polymorphism site wasaThe 194 bp portion of the TNF- amplified by polymerase chain reaction (PCR). To determine the TNF2 allele, the PCR product was digested by BspHI restriction endonuclease. Of the 7 patients, 2 were homozygous and 2 were heterozygous for the TNF2 allele. Three patients homozygously carried the G allele. The TNF2 allele frequency was found to be 42.85%. Our initial results show that carrying the TNF2 allele results in 14.8 (95% CI= 4.14-52.99) times increased risk in developing TMJA. .

### OP162

#### Masseter Muscle Thickness in Temporomandibular Disorder Patients after Splint Therapy

Hamdy A. MARZOOK

*Mansoura University, Faculty of Dentistry, Oral surgery Dept., Mansoura, EGYPT*

**Objective:** This work aimed to assess the thickness of the masseter muscle in temporomandibular disorder (TMD) patients associated with myofascial pain before, during, and after receiving anterior repositioning splint and soft occlusal splint.

**Methods:** Masseter muscle thickness was measured at rest and at maximal contraction using ultrasonogra-

phy in 20 individuals of 2 groups: Group I consisted of ten healthy volunteers while Group II were of 10 patients suffering from TMD with myofascial pain and were subdivided into two subgroups: subgroup A (SGA) in which anterior repositioning splint was used, and subgroup B (SGB) in which soft splint was used. The mean muscle thickness was measured and compared at rest and maximal contraction at different time intervals.

**Results:** There were significant differences in the mean masseter muscle thickness at rest and at contraction after splint wearing, with significant decrease in thickness for SGB, after 1 month, and for SGA at 6 month.

**Conclusions:** TMD patients associated with myofascial pain showed increased masseter muscle thickness and ultrasonography could be a useful tool for their diagnosis and splint therapy may be effective for their management. Soft splint is more superior in short treatment periods while hard splint is more effective after longer periods.

## OP163

### Anatomical and Functional Aspects of Ligaments Interconnected Between Malleus and Temporomandibular Joint

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The aim of this paper is to investigate the anatomical topography and the relationship between the ligaments, malleus and TMJ and to determine the role of these ligaments on the movement of the malleus. Malleus, incus, petrotympanic fissure (PTF), chorda tympani (CT), anterior malleolar ligament (AML), discomalleolar ligament (DML), malleomandibular ligament (MML), sphenomandibular ligament (SML) and articular disc (AD) were explored in 15 skulls. Traction and tension tests were carried out in order to clarify their impact on malleolar movement. In 12 of the cases, two separate ligaments were connected to the anterior of the malleus, whereas a single ligament from the anterior of the malleus to the PTF was observed in 3 cases. In 12 cases, the DML united the retrodiscal tissues. In the other 3 cases, the medial and the lateral parts of the ligament were connected to the retrodiscal tissue after

passing through the PTF. The thickness of the ligaments differed among specimens. When tension was applied to the DML, no malleolar movement occurred but when the AML was overstretched, a significant movement was observed in five cadavers; little movement in six cadavers, and no movement in four cadavers. This study suggests that extreme stretching of the condyle in conjunction with the ligaments interconnected between the ossicles of the inner ear and the TMJ could be the reason of unexplained otological problems.

**Key words:** malleus, anterior malleolar ligament, discomalleolar ligament, malleomandibular ligament, sphenomandibular ligament, retrodiscal tissue, TMJ

## OP164

### Validity of Arthrocentesis in Treatment of Internal Derangements of the Temporomandibular Joint

Mohamed SAID

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**Introduction:** Clicking and pain are indicators of internal derangements of TMJ. The revolution in their treatment was the introduction of TMJ arthroscopy and later of TMJ arthrocentesis.

**Methods:** 44 joints were divided into two groups; group A consisted of 22 joints where arthrocentesis was performed followed by intraarticular injection of one ml. sodium hyaluronate. It was further classified into subgroup A-1 consisted of 15 joints having reducible disc displacement, while subgroup A-2 consisted of 7 joints having nonreducible disc displacement. Group B consisted of 22 joints where arthrocentesis was performed followed by intraarticular injection of one ml. COX-2 inhibitor. It was further classified into subgroup B-1 consisted of 15 joints having disc displacement with reduction, while subgroup B-2 consisted of 7 joints having disc displacement without reduction. Synovial fluid was sampled to measure TNF- $\alpha$  using an immunoenzymometric assay.

**Results:** Patients with either disc displacement with or without reduction benefited from the arthrocentesis with injection of Sodium Hyaluronate and of COX-2 inhibitor. Both were able to reduce pain, increase mouth opening and reduce clicking with no significant difference. However, arthrocentesis with injection of COX-2 inhibitor was superior in terms of reducing TNF- $\alpha$  levels post-treatment.

**Conclusions:**

1. The injection of Sodium Hyaluronate or a COX-2 inhibitor was beneficial for treatment of internal derangements.
2. COX-2 inhibitor was superior to Sodium Hyaluronate in reducing TNF- $\alpha$  levels.

**OP165****Temporomandibular Joint Surgery: When and Why?**

Hani A. SALAM

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Temporomandibular joint disorders are common and have complex etiologic factors. Treatment of these disorders ranges from conservative management such as the use of splints, anti-inflammatories, muscle relaxants, physiotherapy as well as other modalities of treatment. Surgical options for temporomandibular joint disorders are utilized once conservative management fails. An overview of indications, contraindications of different surgical procedures will be discussed. A focus on minimally invasive temporomandibular surgery will be emphasized.

**OP166****Is MRI Affect the Noninvasive Treatment Approaches in Patients with TMD?**Sinan TOZOĞLU, M. Cemil BÜYÜKKURT,  
M. Selim YAVUZ, Ertuğ DAYI

*Atatürk University, Faculty of Dentistry, Dept. of Oral and Maxillofacial Surgery, Erzurum, TURKEY*

**Objectives:** The purpose of this study was to investigate whether the magnetic resonance imaging (MRI) diagnoses affect the noninvasive treatment approaches in patients with temporomandibular joint disorders (TMD).

**Methods:** The study comprised 51 patients with a clinical TMJ disorder. An oral and maxillofacial surgeon performed clinical examination of the patients through well defined criteria for TMD. This examination included interviewing the patient about his or her symptoms and potential contributing factors, measurements of the range of motion, palpation of the temporomandibular joints and muscles of mastication for pain and auscultation of joint sounds. The surgeon noted his proposed initial treatment plan for each patient before MRI ex-

amination. After MRI diagnosis, treatment approaches of the patients were reevaluated. The treatment plans with and without MRI diagnoses were compared.

**Results:** Diagnostic accuracy of the clinical examination was very high (reach 85%). MRI diagnoses were not affect the initial treatment approaches in 80 % of the patients.

**Conclusion:** Although MRI may be useful for the diagnosis TMD, not all patients with TMD symptoms require magnetic resonance imaging examination. MRI diagnosis may not affect the noninvasive treatment approach.

**OP167****Ankylosis: Analysis of 6 Cases**Taylan AKÇA, Firdevs VEZİROĞLU, Özgür PEKTAŞ,  
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Temporomandibular joint (TMJ) ankylosis is characterized by restriction or limitation of mandibular movements. This retrospective study was conducted on 6 TMJ ankylosis patients presented at the Oral and Maxillofacial Surgery Department of the Başkent University Hospital from 2005 to 2008. The patients in this study were evaluated with regard to age, gender, aetiology of ankylosis, ankylosis type / classification, existing facial asymmetry, pain, maximal pre – and post – operative mouth opening and lateral jaw movements. Mean follow – up period was 19 months. The type of ankylosis was assessed by CT and MR preoperatively. All patients received bony ankylosis removal, interposition of a finger – shaped temporalis myofascial flap as a new capsule. In the postoperative period an aggressive physiotherapy was carried on for 1 month. The mean maximal incisal opening (MIO) increased in all cases and no recurrence was observed. All cases experienced release of pain (evaluated by a Visual Analogue Scale Method), a return to a normal diet and a stable improvement in mouth opening during the follow – up period. This technique should be considered a reliable method to avoid relapse of ankylosis and to stabilize postoperative results.

## ORAL ABSTRACT SESSION 10

### OP168

#### Surgical Approaches to Crouzon Syndrome Intracranial Versus Extracranial

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Crouzon Syndrome (Craniofacial Dysostosis) is one of a rare group of syndromes characterized by craniosynostosis or premature closing of cranial sutures. The condition occurs in about 1 of every 25,000 births and is inherited as an autosomal dominant trait. A significant number of cases, however, represent new mutations, often apparently related to increased paternal age. Crouzon syndrome exhibits a wide variability in expression. The premature sutural closing leads to cranial malformations (such as brachcephaly, scaphocephaly...). Visual impairment and hearing deficit may occur. Marked mental deficiency is rarely seen.

The maxilla is underdeveloped, resulting in mid-face hypoplasia. Ocular proptosis is markedly seen.

Quantitative assessment like CT Scan, Lateral cephalometry. Photography and dental model must be done preoperatively.

The surgical approaches for correction of this syndrome are

- 1: Intracranial frontofacial monobloc advancement
- 2: Lefort III (with or without frontal augmentation)

In this article these two approaches will be presented (with cases). From 1995 to 2005 eight crouzon patients were operated (4 patients by intracranial & 4 patients by extracranial approach) advantages and disadvantages will be shown. Statistical results will be illustrated in tables and diagrams

**Results:** Sever cases are suitable for intracranial and mild cases will answer very well to extracranial approach.

Neurosurgeon and at least one week I.C.U are necessary for intracranial approach. Also the intracranial approach has more risks against extracranial approach (which are listed in tables).

### OP169

#### Diclofenac Sodium or Paracetamol for Postoperative Analgesia in Orthognathic Surgery Patients

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The aim of this study was to compare the analgesic affects of paracetamol and a nonsteroidal antiinflamatur drug diclofenac sodium for postoperative pain in patients undergoing bimaxillary osteotomy. 30 orthognathic surgery patients who underwent bimaxillary osteotomy were randomly allocated into two groups via sealed envelope technique. Group P (n=15) and Group D (n=15) received 1g paracetamol iv. and 75 mg diclofenac sodium im. respectively. The analgesics were given to the patients at intraoperative last 15 minutes while the mucosal suturing were achieved. The number of analgesic demands and analgesia given postoperatively as diclofenac sodium were recorded. Postoperative pain intensity (Visual analog scale[VAS]), postoperative analgesic demand, hemodynamic variables as systolic blood pressure and heart rate, and postoperative complications were compared between the two groups. The groups were comparable for the postoperative hemodynamic variables. Postoperative single dose diclofenac or paracetamol effectively decreases the postoperative pain intensity in bimaxillary osteotomy patients.

**Key words:** postoperative pain, analgesics, diclofenac sodium, paracetamol

### OP170

#### Comparison of Absorbable and Titanium Fixation Systems by Finite Element Analysis after Maxillary Advancement Surgery

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**Purpose:** Although titanium plates are considered as the gold standard for fixation of maxillary osteotomies, limitations directed clinicians to use absorbable ones. There are several studies reporting biomechanical properties of both absorbable and titanium fixation systems. However absorbable fixation systems reliability is still controversial. The purpose of this study is to analyze



and compare titanium and absorbable fixation systems under molar and incisor bite forces by using finite element analysis (FEA).

**Study Design:** A three dimensional model of 5mm advanced maxilla was created. Titanium and absorbable (lactosorb) plates and screws were inserted on this model. Upper and lower bone segments were evaluated by contact analysis under anterior, incisor (44N, 125N) and posterior, molar (250N) bite forces. Maximum, minimum principal stresses and maximum, minimum elastic strains and displacements were evaluated by FEA.

**Results:** In all applied bite forces (44, 125, 250N) displacement values of titanium (0.88, 1.65, 0.69 mm) was significantly less than absorbable (2.75, 7.85, 1.65 mm) materials. Principal stresses on the cortical bones were similar for both groups. Principal stress values in titanium plate and screws were greater than lactosorb group.

**Conclusion:** 5mm maxillary advancement following Le Fort I osteotomies fixed with four titanium miniplates and sixteen screws is stable under all tested incisor and molar bite forces. However in absorbable group, if incisor load reaches to 125 N, there is a great risk of plate fracture or screw deformation and failure.

## OP171

### A Correction of Anterior Open Bite and Sagittal Deficiency with Simultaneously Performed Anterior Segmental Osteotomy and Genioplasty

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**Introduction:** Correction of the long, nonprojecting chin requires both vertical reduction and sagittal advancement with genioplasty. Skeletal anterior open bite discrepancies can be managed with the use of a combined orthodontic and surgical treatment that includes segmental osteotomies of the anterior part of the mandible.

**Methods:** A 19 year old woman was referred to Selçuk University, Faculty of Dentistry, Oral&Maxillofacial Surgery Clinic. The patient was with a complaint of difficulty to bite with anterior teeth and esthetic concerns with long face appearance from the profile. The patient treated with combined orthodontic and surgical treatment. Surgical approach includes genioplasty and anterior segmental osteotomy was performed in order to decrease the lower third of the facial height and resolve the anterior open bite discrepancy.

**Results:** The patient was managed well according to our treatment protocol. This treatment procedure provided marked improvement in facial appearance, stability and open bite of the anterior segment.

**Conclusion:** In this kind of cases, the patients initially should be carefully examined by the ortodontist and surgeon. This combined approach which includes anterior segmental osteotomy and genioplasty can be performed.

## OP172

### Application of 3D CT Measurement and Anatomic Models to Asymmetric Deformation in Orthognathic Surgery

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**Objective:** To evaluate the measurement of 3D CT and anatomic models to plan and treat asymmetric deformation patients in orthognathic surgery.

**Methods:** Medical imaging of osseous structures relies on use of 3D CT to all patients, the measurement mainly includes the height of pterygomaxillary suture, the width or height at the level of lingual, angular, body of mandible, and the mandibular canal of at the level of lingual, angular and body of mandible. Surgical simulation procedures are accomplished using anatomic models, such as osteotomy simulation and optimization of bone movements. According to the results, individual orthognathic surgery was undergone.

**Results:** Through measurement of 3D CT and anatomic models, diagnosis was accurate; corresponding operative program was established preoperatively; as the visualization of the anatomic structures, complication was reduced and operation time is saving. 3D CT reconstruction imaging and anatomic models makes better communication with other surgeons and patients about how to or what exactly will be done during operation.

**Conclusions:** Measurement of 3D CT has instructive value to orthognathic surgery.

**OP173****Surgical Management Of Vertical Anomalies**

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Ayça ARMAN, Sina UÇKAN

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Orthognatic surgery and distraction osteogenesis procedures are used for correction of vertical anomalies. Although cephalometric evaluation is the most important aspect to diagnose these anomalies, the management should be performed by evaluating the face types and horizontal width of the chin, as these values affects the facial properties. In this presentation surgical correction of vertical anomalies by either orthognatic surgery or distraction osteogenesis and the effects of surgical chin width reducement to the result is also discussed.

## ORAL ABSTRACT SESSION 11

**OP174****Effect of Allegronat Monosodium Trihidrate on Dental Implant Stability**

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Biphosphonates suppress osteoclast activity and their intravenous use has been reported in hundreds of cases to be associated with osteonecrosis in the jaw. The purpose of this report is to understand the effect of allen-dronat on dental implant stability. We inserted 30 dental implant in 12 patients. Patients were assigned into 2 groups. Experimental group received 70 mg oral allen-dronat every week for 1 mounth. We evaluated dental implant's stability using resonance frequency analysis just after the surgery, 30th day, 60th day and 90th day after the surgery.

**OP175****Zygomaticus Fixtures to the Rehabilitation of Atrophied Maxilla. Report of 125 Zygomaticus Implants**

Fabio Guerra Luiz MARINHO, Marcelo Melo SOARES

*Privative Practioner, Sao Paulo, BRAZIL*

The aim of this paper is report the results obtained from the rehabilitation class VI and V maxilla using zygo-maticus fixtures. To this study a group of 59 patients (36% male, 64% female) , average age of 59 years old (ranging from 38 to 85 years old), showing atrophic maxilla, Associated with 125 zygomaticus fixtures, 175 conventional conic implants were installed on the anterior maxilla (ranging from 2 to 6 implants) and 11 implants were fixed on the pterigoideo bone in order to achieve better anchorage and force distributions among the implants for the prosthesis. In this group 45 patients received temporary immediate loading prosthesis and 14 patients waited for the osseointegration period in order to have the final prosthesis. From the zygomaticus fixtures a rate of 93% of success was achieved (9 failures), making the failures highly concentrated on complex cases (3 implants on cases of previously failures of graft and implants). Two failures occurred on long term, all the others occurred during ossointegration period. The conventional implants showed a rate of 95% of success with all the failures occurring during the osseoin-

tegration The results obtained on this study suggest that zygomaticus fixture, is a high rate success and predictable procedure for the rehabilitation of atrophic maxilla, that in the majority of the cases allow immediate loading, reducing the time spent and cost of the treatment.

## OP176

### Implant Survival Rates in Posterior Maxilla with or without Sinus Lifting

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**Purpose:** Sinus lifting procedure provides a way to increase the amount of available bone and the placement of longer implants. The aim of this study is to evaluate and compare the survival rates of implants inserted to posterior maxilla (without sinus lifting) and simultaneous implant insertion with sinus lifting.

**Patients and Methods:** 70 maxillary sinus in 62 patients were augmented by TCP and autogenous bone and 121 implants were inserted to these augmented sinuses (study group) and 136 implants were placed to posterior maxilla in 65 patients (control group). The follow up was 4 months to 7 year, mean 1 year 8 months.

**Results:** One (0.82%) of the implants in study group and one (0.73%) of the implants in control group failed. All other implants in both groups are functioning well without any significant clinical finding. Implant survival was 99.17% in sinus lift and 99.26% in implants without sinus lift at the follow up time of 1.6 year.

**Conclusion:** Simultaneous implant insertion and sinus lifting with TCP and autogenous bone graft is safe, and survival rates are similar to implants inserted to posterior maxilla without sinus lifting.

## OP177

### Radiographic and Clinical Evaluation of Single-Tooth BioloK Implants

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The purpose of this clinical and radiographic study was to evaluate 2 different implants used for single-tooth replacement during 6 mounts of function.

**Material and Methods:** 42 patients (21 Silhouette IC Laser-lok and 21 Silhouette IC implants BioloK, USA) received BioloK Implants for single-tooth replacement. Two types of implants were placed in different areas of both the maxilla and mandible to replace single teeth. All implants were placed in a 2-stage procedure. After a healing period of approximately 3, 5 mounts in the maxilla and 2, 5 mounts in the mandible the implants were loaded. Clinical and radiographic recordings were made at baseline (placement of restoration) and at 1, 3 and 6 mounts. Plaque Index (PI), Gingival index (GI), and Clinical Attachment Level were the clinical parameters recorded. Clinical attachment level was measured using a customized probing template and a standart probe. Bone level changes were measured from standardized radiographs Clinical attachment level and bone level were recorded to the nearest 0.1 mm. Correlations between clinical attachment level, bone level, PI and GI were evaluated.

**Results:** The cumulative survival rate was 100 % (42 of 42). However evaluation of clinical and radiographic study 2 different implants used for single-tooth replacement during 6 mounts of function, laser-lok implants were more succesful then the other.

## OP178

### The in – Vitro Evaluation of Heat Production During Implant Preparation with Using Surgical Drill Guides

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**Purpose:** The purpose of this study was to evaluate the heat generated in bone by 2 implant drill systems with and without using surgical drill guides.

**Materials and Methods:** Temperature was measured with K type thermocouple in vitro using the bovine femoral cortical bone model. A constant drill load of 2.0 kg. was applied throughout the drilling procedures via a drilling rig at a speed of 1500 rpm. Two different implant drill systems – system A (with external irrigation) and System B (with both external and internal irrigation) – were evaluated using with surgical drill guides versus classical implant site preparation. Heat was measured at the final drill in the drilling sequence (4.2 mm. and 4.4 mm.). Thermocouples were placed 1 mm. from the osteotomy at depths of 3 mm., 6 mm., and 9 mm. Heat measurements were recorded out to 50 uses by a software program.

**Results:** The mean maximum temperatures, the time of drilling and the time needed for specimens to return the baseline temperature were higher with using surgical drill guides regardless of the system used. Significantly greater temperature increase was noted at the 9 mm. depth versus 3 mm. depth with both systems.

**Conclusions:** From a heat generation standpoint, we conclude that preparing an implant site with using surgical drill guides generates heat more than classical implant site preparation regardless of the irrigation type. Drills reused more than 35 times stood out with an increased number of higher temperatures.

## OP179

### The Clinical Assessment of Reconstruction of Bone Loss with Hydroxyapatite for Implant Insertion

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**Introduction:** The progressive loss of alveoli following the loss of the teeth and long term using of removable dentures, compromises suitable establishment of implant. This study was accomplished to determine the efficacy of hydroxyapatite (HA). Few studies have been accomplished in this field.

**Methods and Materials:** Eighteen patients (11 Men, 7 women) in the range of 44 - 69 years old, who were candidate for implant surgery with severe bone loss, the patients had edentulous areas in maxilla (6 patients) and mandible (12 patients). The edentulous areas were reconstructed by non-absorbable microporous HA through subperiosteal tunneling method. After 6 months, 52 titanium implants which were covered by HA, were inserted in bone for about at least 3 mm. After 4 - 6 months, the implants were exposed and the prosthesis were applied. After 6 - 12 - 18 months of loading the implants, the clinical assessment including pain, infection, probing and bleeding on probing, as well as radiographic evaluation.

**Results:** After 18 months, pain and infection were not observed in any of the implants. In 3 implants (6 / 57%), the probing depth was more than 4 mm, and in 6 implants (11 / 53%) bleeding on probing was observed. In 1 implant (1 / 92%) mobility was observed which resulted in implant removal, and in 2 implants (3 / 84%), radiolucency was observed around implants.

**Conclusion:** Our findings suggest that HA can be used as an ideal material to reconstruct the ridges with appropriate stability and adaptation.

**Keywords:** Hydroxyapatite, Implant, Reconstruction of bone loss.

## OP180

### Radiologic and Clinical Evaluation of Maxillary Sinus Lifting Procedures

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Cevlan Ertuğrul KÖYMEN, Yılmaz GÜNAYDIN

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The anatomy of maxillary sinus is important for the maxillofacial surgeons. Maxillary sinus, a large pyramidal cavity has thin walls corresponding to orbital, alveolar, facial and infratemporal aspects of the maxilla. The size, shape and wall thickness of sinus varies from one to another even on the two sides of an individual skull. The floor of the antrum is approximately 1,5 cm below the nasal floor in dentate adults. Anteriorly the sinus extends generally to the canine premolar region. The convex sinus floor usually reaches its deepest point at the first molar region. Several conical elevations corresponding to the roots of the first and second molar teeth which project into the floor have sometimes sinus membrane perforated. The presence of anatomic variations within the maxillary sinus, such as septa, has been increased the risk of sinus membrane perforation during sinus elevation. The aim of this study is to determine anatomic evaluation of the maxillary sinus septa which can be able to take part in the inner surface of sinus in partial and complete edentulous maxilla. The occurrence of septa is possible in either place of maxillary sinus in different height and course on condition that there is either partial or complete edentulous. Therefore, to avoid unnecessary complication during sinus augmentation procedures, adequate and timely identification of the inner aspect of maxillary sinus segments must be accomplished.

**OP181****The Effects of Capacitive Electrical Stimulation on Bone Healing Around Ti Implants**

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A rodent model was developed to assess the osteogenic potential of electrical stimulation on bone healing around titanium (Ti) implants. Adult male rats were fitted subcutaneously with electrical leads placed around Ti implants inserted in the tibia. Bone healing around the Ti implant was assessed histologically at different time intervals sacrificed immediately. Other groups of animals were given 7 days of continuous capacitive electrical stimulation but sacrificed at day 14 or 21 post-implantation. Histomorphometric analysis of the bone-Ti interface revealed that animals given 5-7 days of continuous capacitive electrical stimulation demonstrated more bone at the surface of the Ti implant than in controls. Biomechanical 'pull-out' tests demonstrated that the force required to remove the Ti implants from the tibiae was significantly greater in electrically stimulated animals compared to controls at day 7. Bone densitometric measurements revealed a statistically significant increase in bone density in the electrically-stimulated animals by days 5-7 compared to controls. In summary, an animal model was developed to evaluate the effects of continuous capacitive electrical stimulation on bone healing around Ti implants placed in tibiae of rats. Significant bone growth was demonstrated by days 5-7 post-implantation as in all parameters tested. These findings suggest that continuous capacitive electrical stimulation maybe used as a therapeutic modality to increase the rate of bone deposition around Ti implants.

**POSTER**  
**PRESENTATIONS**

**PP201****Speciality:** Other : Oral Patoloji**Dentigerous Cyst Associated with Mesiodens; Trauma and Internal Resorption: A Case Report**Nihat AKBULUT, Çağrı BARDAK, Mustafa TATIDZE*Ankara University, Faculty of Dentistry, Department of Oral and Maxillofacial Surgery, Ankara, Turkey*

Dentigerous cysts are most common developmental cysts of the dental area. A mesiodens, a supernumerary tooth located in the maxillary central incisor region has an overall prevalence of 0.15-1.9%. Delay of eruption, diastema and position alterations of permanent tooth and dentigerous cysts may be associated with mesiodens. Dentigerous cysts around supernumerary teeth account for 5% of all dentigerous cysts; most of them around a mesiodens in the anterior maxilla. In this case report, a 23 year old female patient presented with a dentigerous cyst associated with mesiodens to be lying apical to a permanent central incisor with internal resorption and trauma history.

**PP202****Speciality:** Other: Oral Surgery**The Conservative Treatment of Dentigerous Cysts in Childhood: Report of 6 Cases**Müge ÇİNA AKSOY, Gülperi KOÇER, Semra Kayaaltı ÖZARSLAN, Timuçin BAYKUL*Süleyman Demirel University, Faculty of Dentistry, Oral and Maxillofacial Surgery Department, Isparta, TURKEY*

**Introduction:** Developmental odontogenic jaw cysts are generally connected with impacted or unerupted teeth. Follicular cysts may frequently occur before the age of 20 years and their treatment may cause eruption problems especially during the mixed dentition. The conservative treatment options of these types of cysts will be presented.

**Case Reports:** Case 1 was 9 years old boy, case 2 was 14 years old boy, case 3 was 7 years old girl with bilaterally dentigerous cysts in the premolar region in the mandible. The permanent premolars were impacted in all 3 cases. Case 4 was 10 years old girl with a large dentigerous cyst in the left canine- premolar region in the maxillae. The canine and premolars were impacted. Case 5 was 11 years old boy with a large dentigerous cyst in the right canine region in the mandible. The last case was 9 years old boy with a large dentigerous cyst

in the left premolar region in the mandible.

**Discussion:** Enucleation, marsupialization or their combination are the conventional treatment options of the jaw cysts. Large cysts may localise nearby the important anatomical structures or may involve unerupted permanent teeth. These kind of cysts may be treated with marsupialization in order to protect these anatomical structures or to allow the eruption of the permanent teeth.

**Conclusion:** Marsupialization should be considered as an effective conservative treatment method of the jaw cysts during mixed dentition in the childhood.

**PP203****Speciality:** Implants**Maxillary Sinus Floor Augmentation with Simultaneous Implant Placement: Postoperative Complications**Fethi ATIL, Hakan Hıfzı TÜZ, Umut TEKİN*Kırıkkale University, Faculty of Dental Medicine, Department of Oral and Maxillofacial Surgery, Kırıkkale, TURKEY*

**Purpose:** In this study, postoperative complications after maxillary sinus floor augmentation of severely atrophic edentulous maxilla using allogenic bone grafts with simultaneous implant placement were evaluated. Results of patients with 1 to 4 mm residual bone height were compared with the results of patients treated following the standard protocol with residual bone height >4mm.

**Patients and Method:** The study group consisted of 18 augmented sinuses with 25 implants whereas control group consisted of 33 sinuses for 41 implants. All patients were consecutive administrations treated for one-stage sinus augmentation. Sinus augmentation was performed with allogenic corticocancellous bone particles.

**Results:** Only one maxillary sinus exhibited suppuration in the study group which led to the loss of one dental implant. No postoperative infection was observed in the control group. Four of the implants were lost in the study group whereas no implant loss was detected in the control group. The success rate of implants was 84% for the study group and 100% for the control group.

**Conclusion:** Sinus augmentation with simultaneous implant placement seems to be safer when the residual maxillary bone height is over 4 mm. Simultaneous implant placement might be performed in the patients with 1 to 4 mm of vertical residual bone height. However the patient should thoroughly be informed about the risks and careful surgical technique and planning should be used.

**PP204****Speciality:** Reconstruction, Trauma,**The Protetic Rehabilitation of Maxillary Defect after Firearm Injury. A Case Report**İsmail Hakan AVSEVER, Hasan Suat GÖKÇE,  
Emre MUMCU, Ümit KARAÇAYLI, Bülent PIŞKIN*G.A.T.A. Dentistry Sciences Center, Dept. of Oral Diagnosis and Radiology, Ankara, TURKEY*

Gunshot wounds are extremely serious situation for the emergency departments. Reconstruction and rehabilitation of acquired maxillofacial defects are highly important, because, to regain the disadvantages such as loss of function, speech and aesthetics is very difficult. Gunshot wounds have comparatively low rate among the causes of the maxillofacial defects but they present a high difficulty level to surgeons. In this case report we shall present the clinical evaluation and the prosthodontic treatment of 21 years old male patient with a maxillary gunshot defect.

**PP205****Speciality:** Orthognatic, Surgery,**Skeletal Anterior Open Bite (SAOB Cases by Orthognatic Surgery**Barış Altuğ AYDİL, Nedim Özer, Yusuf ÖZDEMİR*The Ministry of Health, İstanbul Province Administry Dental Hospital, İstanbul, TURKEY*

Skeletal open bite characterized with malocclusions are very difficult to manage. Skeletal anterior open bite (SAOB) is considered big problems in orthodontic treatment. Treatment of SAOB consist mainly of surgical repositioning the maxilla or mandible. The surgical procedures required for correction of the deformity may effect the dentofacial development. The challenge to achieve efficient and relatively stable results, with the use of combined orthodontic and surgical procedures. Athorough understanding of facial growth patterns is essential and each case needs to be evaluated individually. Relapses can be seen at the most common skeletal deformities of open bites. After the reveling of teeth, orthognatic surgery is unavoidable in many cases of the SAOB . Treatment of SAOB consist different surgical methods. The panoramic, cephalometric and clinic evaluations took very important place at the choisen of orthognatic surgery procedures and methods . In our clinic dentofacial deformities of the open bite patients (SAOB) has been treated by different orthognatic surgery methods. Open

bite deformities were corrected by simultaneous repositioning of the maxilla and mandibula by means of Le Fort I osteotomy, bilateral sagittal split osteotomies and denalveolar segmental osteotomies. In our study we evaluated the results of these surgeries.

**PP206****Speciality:** Biomaterials,**Histologic Analysis of Osteopromotion Property of Homogenous Demineralized Dentin Matrix in Parietal Bone Defects in Rabbit**Hamid Reza AZIMI, Nima BACKSHALIAN*Tehran, IRAN*

**Purpose:** The aim of this research was to evaluate osteopromotion property of homogenous demineralized dentin matrix (HDDM) on experimental surgical bone defect in parietal bone of rabbite.

**Material and Method:** 8 milimeter bone defects were created in parietal bone of 6 with new zealand rabbite (2 defect in each rabbite). Anterior defect filled with HDDM and covered by membran (experimental group) posterior defect only covered by membrane (control group). Rabbits sacrificed after 15-30-45-60 and 90 days. Samples were obtained and bone quantity were analysed with histomorphmetric study.

**Results:** The volume of newly formed bone matrix was greater in experimental group. No inflammatory reaction was seen in either group.

**Discussion:** HDDM particles were biocompatible and absorbes during remodeling Process.

**Conclusion:** Bone regeneration was accelerated in defects treated with HDDM than control group.

**PP207****Speciality:** Other: Anatomy**Unusual Impacted Mandibular Anterior Teeth Associated with a Supernumerary Tooth: A Case Report and Long Term Results**Hüseyin Avni BALCIOĞLU, Şeref EZİRGANLI,  
Fatih ÖZAN, Gülseren KÖKTEN*Istanbul University, Faculty of Dentistry, Department of Anatomy, İstanbul, TURKEY*

Impacted teeth are those with a delayed eruption time or that are not expected to erupt completely based on clinical and radiographic assessment. The main causal fac-



tors are local (lack of space, ectopic positions of teeth, supernumerary teeth etc). Systemic and genetic disorders may include failure of eruption and retarded eruption as additional symptoms. In this case report impacted mandibular permanent anterior teeth with supernumerary tooth were presented. On examination, swelling in the mandibular anterior labial region along with a partly erupted tooth-like substance with normal tooth color was detected. On probing, lesion exhibited pocketing to a depth of about 10 mm. Regional lymph nodes were not affected. There was no relevant medical history. Permanent teeth partially erupted due to alveolar resorption in which inflammatory factors probably played a role. Under local anesthesia all impacted teeth and soft tissue remnants were removed. Histopathological examination of soft tissue remnants showed a cystic degeneration. Bone grafting procedure was not achieved because of patient's health insurance insufficiency. Although any member of the dentition may become impacted those most commonly affected are third molars, canines, second premolars and supernumerary teeth. If an impacted tooth remains untreated there is potential for the development of a number of irreversible hard and soft tissue pathological conditions which may proceed to an advanced stage before the development of symptoms. Techniques of removing impacted tooth are often involve surgical and/or orthodontic manipulation of the affected tooth. Fortunately the patient showed uneventful healing according to 2.5 year follow-up.

## PP208

**Speciality:** Other: Cytotoxicity

### **Evaluation of Cytotoxic Effect of Garlic on Human Gingival Fibroblasts: A Preliminary Study**

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Garlic (*Allium sativum*) has been used as a medicine since ancient times and has been known to have antibacterial, antifungal and antiviral properties. Several centuries ago the Egyptians used garlic to treat many disease entities. Aristotle and Hippocrates called attention to the healing powers of garlic, and Pasteur mentioned its medicinal and antibacterial properties. In this study we aimed to evaluate the cytotoxic effect of aqueous garlic extract on human gingival fibroblasts. Aqueous garlic extracts were prepared at 6 different

concentrations as 25%, 12.5%, 6.25%, 3.12%, 1.5%, and 0.6%. Cytotoxic effects of garlic and chlorhexidine (CHX) mouthrinse on human gingival fibroblasts were evaluated by agar diffusion method. Experimental solutions were applied by using sterile round Whatman papers in diameter 6 mm. For each garlic solution four replicate dishes and four additional dishes with positive and negative control materials were prepared. Cytotoxicity was determined by the cellular uptake of neutral red, which preferentially binds to acid regions of living cells as lysosomes and proliferating DNA, staining them intensively red. Garlic extracts concentrations at 6.25, 3.12, and 1.5% were not found cytotoxic on human gingival fibroblasts. Although, garlic extract concentration at 12.5% was found cytotoxic, this effect was found less cytotoxic than CHX. 25% garlic extract was found much cytotoxic than CHX. Garlic could have a promising role in the future medicine, if appropriate solutions can be prepared being strongly as effective as or more effective on oral microorganisms than Chlorhex.

## PP209

**Speciality:** Other: Anatomy

### **Topographical Evaluation of Maxillary Artery in Infratemporal Fossa: A Cadaveric Study**

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Mandibular osteotomies, such as intraoral vertical ramus osteotomy or bilateral sagittal split osteotomy, even open TMJ procedures using the preauricular approach are the most commonly performed surgical procedures for correction of mandibular deformities in the infratemporal fossa which reveals a close proximity to the maxillary artery. It is vital to prevent damage to anatomic structures such as the maxillary artery in order to avoid extensive intraoperative or postoperative hemorrhage. As a very commonly used and a simple technique in fact, blockage of inferior alveolar nerve also needs considerable care because of the same artery. Due to the fact that surgeon must be fully aware of the topographic relations of the maxillary artery, we determined some significant landmarks in fixed cadavers and measured the distances with digital calipers, following a dissection in topographic territory after a mandibular osteotomy. The average distances between the maxillary artery and articular eminent, articular process, in-

ferior border of pterygoid fovea and mandibular notch were determined and found as  $1.67 \pm 0.48$  mm,  $5.38 \pm 2.47$  mm,  $16.84 \pm 1.74$  mm,  $2.94 \pm 0.52$  mm, respectively.

We also investigated the subcondylar level of maxillary artery. No significant differences were found between right and left sides, for all parameters. These landmarks in question and the distances measured will assist clinicians for more success in maxillofacial surgery procedures.

**Keywords:** Maxillary artery, dissection, mandibular osteotomy, surgical landmarks

## PP210

**Speciality:** Other: Anatomy

### Morphometric Study of Styloid Process and Anatomical Implications for Eagle Syndrome

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Eagle syndrome is a condition that is recognized by occasional pain in the neck, a feeling of a foreign body in the pharynx or some other form of retromandibular-cervical pain related to elongated styloid process of temporal bone or calcified stylohyoid ligament attached to it. The lengths of 575 styloid processes of the temporal bones were examined, out of 22 cadavers, 74 dry skulls, 31 isolated temporal bones and 250 panoramic radiographs. A digital caliper was used to measure the length of the styloid process. By means of the histories of the patients referred, the panoramic radiographs were analyzed concerning eagle syndrome retrospectively. Subjects with elongated styloid processes had discomfort on swallowing and on turning the head from side to side. An incidence of elongated styloid process was determined without taking into consideration the symptom while a relationship between the Eagle syndrome and the length of the styloid process was also assessed. It is important for the dental surgeon to be aware of this anomaly and its anatomic basis while panoramic radiography as a simple radiodiagnostic procedure is a practical method to determine whether the styloid process is elongated.

**Keywords:** Styloid process, Eagle syndrome, morphology

## PP211

**Speciality:** Other: Anatomy

### Microscopic Anatomy of the Mandibular Canal and the Neurovascular Bundle: A Histomorphometric Study

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Due to the fact that neurovascular structures should be precisely considered before planning a surgical procedure in the mandible, a thorough identification of these structures is vital. In the present study, 52 hemimandible specimens from 28 human cadavers fixed in formalin were dissected to determine the position of mandibular canal, neurovascular bundle, anterior loop of the mental nerve, the course of the inferior alveolar nerve and its branches. Dentulous, and edentulous hemimandibles were classified. The distances between the inferior margin of the mandible and the mandibular canal were measured. The distribution pattern of inferior alveolar nerve was evaluated. The nerve was coursing medially in the mandible till the mental foramen while it was located laterally in the bone just after the neurovascular bundle left the mental foramen, in all of the specimens. The arteries and the veins always were above the inferior alveolar nerve in the mandibular canal. Serial sections of 3 mm thickness were prepared and investigated to identify the course of the neurovascular bundle within the body of mandible. 5- $\mu$ m thick cross sections were prepared using a Reichert Ultracut E microtome along the mandibular canal. The specimens were examined under a fluorescent microscopy and the diameters of mandibular canals, inferior alveolar nerves, mental foramens, incisive nerves, inferior alveolar arteries and inferior alveolar veins were measured. In order to optimize surgical approaches and avoid complications, the anterior loop of the mandibular canal should also be carefully assessed as an anatomical landmark in the mandible, especially before the implant placement. One of the goals of this study was to characterize the anatomical characteristics of the anterior mental loop and to determine its presence and dimensions. These values would be of importance not only from anatomical but also from practical point of view for estimation of implant placement and preoperative analysis in mandibular surgery in the mandible.

**PP212****Speciality:** Other:Cancer**Peripheral Ameloblastoma: A Case Report**Timuçin BAYKUL, M. Asım AYDIN,  
Semra Kayaaltı ÖZARSLAN*Süleyman Demirel University, Faculty of Dentistry, Dept. of Oral and Maxillofacial Surgery, Isparta, TURKEY*

**Introduction:** Peripheral ameloblastoma, also known as the extraosseous ameloblastoma, is a rare odontogenic soft tissue tumor. This tumor may occur in the gingiva and very rarely in the buccal mucosa. They usually exhibit a non-aggressive behaviour and recurrence is rare. A very aggressive peripheral ameloblastoma originating from buccal mucosa and involving the cheek will be presented.

**Case Report:** A 71-year-old male was referred to our clinic with a complaint ill-fitting dentures. Clinical examination revealed pain, swelling and hemorrhage located in the left mandibular angulus-retromolar region. An incisional biopsy revealed that the micrographic findings were consistent with peripheral ameloblastoma. The patient was operated 3 times because of its recurrence.

**Discussion:** Although, recurrence is reported rarely following local excision of the peripheral ameloblastoma, it may be aggressive. In this case, radical resections following reconstructions could be performed. Also long term follow-up controls should be done as repeating recurrences may occur in very aggressive tumors.

**PP213****Speciality:** Reconstruction,**Eosinophilic Granuloma Causing Pathological Fracture in the Mandible Reconstructed with Free Fibular Flap: Case Report**Timuçin BAYKUL, Asım AYDIN, Serdar NASIR,  
Süha TÜRKASLAN*Süleyman Demirel University, Faculty of Dentistry, Dept. of Oral and Maxillofacial Surgery, Isparta, TURKEY*

Langerhans cell histiocytosis encompasses 3 disorders: eosinophilic granuloma, Hand-Schuller-Christian syndrome and Letterer-Siwe syndrome. The clinical spectrum of eosinophilic granuloma in jaws is quite varied, ranging from a first clinical manifestation of teeth loosening to diffuse involvement in the entire jaw. A case of eosinophilic granuloma involving almost the entire mandible causing

pathological fracture and treated with free fibular flap will be presented. Case Report 45 years old man referred to our clinic with complaints of mobility of the anterior mandible, pain and pu drainage. Clinical examination revealed bilateral mobility in the mandibular corpus, pu drainage both in the mandibular corpus bilaterally and in the anterior mandible. Panoramic radiography revealed radiolucent lesions involving the mandible from the right corpus to the left. An incisional biopsy was performed and the diagnosis was confirmed as eosinophilic granuloma. The mandible was resected from right corpus to the left. The lower border at the anterior mandible was protected to be used as a matrix. The resected mandible was reconstructed with free fibular flap. The patient is still under our follow-up. Results The current treatment strategies of the eosinophilic granuloma depends on the presentation of the disease. The treatment options may include surgery, radiation therapy, corticosteroid therapy and chemotherapy. The classic treatment of LCH is vigorous surgical curettage or resection of the bone lesions. Reconstruction should also be performed especially when large resections was performed.

**PP214****Speciality:** Temporomandibular Joint**Mandibular Condylar Bone Mineral Density in Males with Dental Fluorosis**Zeynep Yüçetürk BILGIN, Ali Alp SAĞLAM,  
M. Şenol TÜZÜM*Süleyman Demirel University, Faculty of Dentistry, Oral and Maxillofacial Surgery Department, Isparta, TURKEY*

**Objectives:** The purpose of this study was to assess mandibular condylar bone mineral density in subjects with dental fluorosis in an endemic fluorosis region, Isparta.

**Methods:** Healthy male subjects distributed to dental fluorosis (Group 1 n:27; Group 2 n:26; Group 3 n:28) and controls (n:28). Groups were classified in according to the Thylstrup&Fejerskov Dental Fluorosis Index to determine dental fluorosis severity. Bone mineral density measurements were performed on digitized panoramic radiographs by dedicated software (Scion Image 4, 02 for Windows) with the help of aluminium stepwedge phantom, attached to each film cassette. Statistical analysis was performed using statistical software package (SPSS Version 11.0; SPSS Inc., Chicago, IL).

**Results:** There were no statistical significant differences between ages in groups. Mean mandibular

condylar bone mineral density (g/cm<sup>2</sup>) was measured 2.76 + 0.41 in Group 1, 3.21 + 0.11 in Group 2, 3.33 + 0.11 in Group 3 and 2.25 + 0.42 in Group 4. Statistically significant differences were observed between Groups 1 and 2 ( $p \leq 0.001$ ), Groups 1 and 3 ( $p \leq 0.001$ ), Groups 2 and 4 ( $p \leq 0.001$ ), 3 and 4 ( $p \leq 0.001$ ) mandibular condylar bone mineral density.

**Conclusions:** The present study showed that, bone mineral density of the mandibular condyl, seem to be affected in all individuals with dental fluorosis, and a panoramic radiograph could be diagnostic value for mandibular condylar bone mineral density determination.

## PP215

**Speciality:** Other: Odontogenic Tumor

### Multicystic Ameloblastoma in Mandible: A Case Report

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Ameloblastoma is the most common aggressive benign odontogenic tumor of the jaws. It occurs only 1% of all tumors of the maxilla and mandible and 11% of all odontogenic tumors. The tumor is often asymptomatic, presenting as a slowly enlarging facial swelling or an incidental finding on a radiograph. It occurs in all age groups but the lesion is most commonly diagnosed in the third and fourth decades. The current concept is to classify ameloblastomas as multicystic classical intraosseous ameloblastoma or unicystic with peripheral subtypes. This classification has a direct bearing on the pathologic behavior of these variants. Ameloblastomas are notorious for their invasive growth and their tendency to recur. Treatment is primarily surgical. There has been some debate regarding the most appropriate method for surgical removal of the tumor. These range from conservative to radical modes of treatment. The conservative approach includes enucleation, curettage, and cryosurgery. The more radical treatment involves marginal resection, segmental resection, or composite resection. We report a case of a multicystic ameloblastoma in a 34-year-old woman that presented as a painless swelling on the mandibular posterior region.

## PP216

**Speciality:** Implants,

### Placement of Endosseous Implants in a Child with Ectodermal Dysplasia: A Case Report

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The replacement of teeth by implants is usually restricted to patients with completed craniofacial growth. Implant insertions in children or adolescents are circumvented due to several unfavorable potential effects including trauma to tooth germs, tooth eruption disorders and multidimensional restrictions of skeletal craniofacial growth. Moreover, the functional and esthetic results of the oral rehabilitation are only temporary acceptable. However, to a small number of pediatric patients suffering congenitally from severe hypodontia caused by syndromes such as ectodermal dysplasia, conventional prosthodontic rehabilitations are insufficient. The purpose of this article is to report the clinical course of a 12 year old child with ectodermal dysplasia who was treated with implant surgery. He was treated with prosthesis of the mandible with 2 implants in the canine region. He is in follow-up period now.

## PP217

**Speciality:** Other: Cysts and Radiology

### A New Method of Assessing the Size of Mandibular Cysts on Orthopantomograms: Projection Area Fraction

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This study was carried out to describe a simple, accurate and practical technique for assessing mandible cysts' area on routine orthopantomograms using digital planimetry. Forty orthopantomograms containing mandibular cysts were obtained. The digitalized images were used to measure the surface area of the half mandibles and cysts using Imagej software.

The projection area of the half mandibles and cysts was provided by the machine. The surface area fraction of the cysts within the half mandibles was estimated by using the projection area fraction (PAF) approach. Estimations were repeated on films one month later. The mean PAF (mean  $\pm$  SEM) obtained by the same ob-

server in two sessions was  $10.6 \pm 2.3\%$  and  $13.0 \pm 2.0\%$  for the right and left sides, respectively. The estimation results of two sessions were compared using the Willcoxon Signed Rank Test.

The study found no statistical difference between the estimated PAL values ( $p > 0.05$ ). The estimation results of the same observer at one-month intervals were analyzed statistically to check intra-observer variation using a correlation analysis test, which found a high degree of agreement for the results estimated using the planimetric method for the right and left sides ( $r=0.994$ ,  $p<0.001$  and  $r=0.999$ ,  $p<0.001$ , respectively). The method described in this study is inexpensive and fast, because planimetry can be performed within a couple of minutes per subject. This method can also be used to monitor the size difference of lesions evaluated for clinical follow-up and research.

## PP218

**Speciality:** Other: Oral Pathology

### **Lymphangioma of Buccal Mucosa: An Unusual Case**

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Lymphangiomas are uncommon congenital hamartomas of the lymphatic system, usually diagnosed in infancy and early childhood. Commonly located at head and neck, they are rarely situated in oral cavity. Affected sites in the oral cavity may include the tongue, palate, gingiva, buccal mucosa, lips, and alveolar ridge of the mandible. Preferred oral involvement is the tongue. Lymphangioma of the buccal mucosa is very rare. Histopathologically, proliferated vessels of lymphatic system are lined by plump endothelial cells. The lumens of the lesion contains eosinophilic coagulum with erythrocytes and leukocytes. Occurrence of a lymphangioma in an adult is infrequent. The aim of this report is to present the extreme case of lymphangioma both the age of patient and localization of the lesion. Surgical excision, laser therapy, sclerotherapy and drainage may be treatment modality for the lymphangiomas. In our case, lymphangioma of the buccal mucosa was surgically excised. Though rarely met in the oral cavity, lymphangiomas are an eventuality to take into consideration by the clinician.

## PP219

**Speciality:** Implants, Temporomandibular Joint, Orthognatic Surgery, Cancer, Reconstruction, Trauma,

### **Resection of an Orbital Rim Intraosseous Cavernous Hemangioma and Reconstruction by Chin Graft and Lacto Sorb Plate**

Dr. Nigel CURTIS, Dr Hans ZOELLNER

Intraosseous haemangiomas are uncommon in the orbital rim and pose difficulties for removal and reconstruction. Here we report an excellent cosmetic and functional outcome following en-bloc resection and reconstruction, using a cortico-cancellous bone graft from the chin and LactoSorb perforated tray plate. The lesion treated is characterized by both computerized axial tomography and histology, while the post-surgical bony contour is also revealed by computerized axial tomography.

**Introduction:** Although 47% of intraosseous haemangiomas occur in the skull, with a modest female predominance of 62%, haemangiomas of the maxilla comprise only 4% of intraosseous lesions, and cavernous haemangiomas are rarely reported in the zygoma or orbital rim. These lesions have an uncertain aetiology, while most lesions appear to be the intramedullary cavernous form. Lesions usually appear in the fourth or fifth decade and have a benign clinical course. Block resection is generally recommended to avoid profuse intraosseous bleeding, and here we describe reconstruction of the resulting rim defect with a bone graft taken from the region of the chin and utilising a LactoSorb resorbable plating system (Lorenz, Jacksonville, FL). Reconstruction of the orbital rim region utilising a resorbable plate system appears to be a relatively new approach.

**Case Report/Methods:** A 55 year old female presented with a symptomless lump, reported of 2-3 months duration in the left orbital rim/zygomatic region, and measuring approximately 1.5 cm in

diameter. There were no altered eye signs or infraorbital nerve paraesthesia. The only significant medical history was a motor vehicle accident in June 1998 with fracture of the ankle. CT examination revealed a 1.5cm expansile radiolucency in the left orbital rim with mixed density bone.(Fig 1 A&B). Blood chemistry was normal. Surgical treatment included en-bloc resection and reconstruction with a LactoSorb perforated tray plate and screws (Lorenz, Jacksonville, FL), using a cortico-cancellous bone graft from the chin region under general anaesthesia (Fig 2A). The bone graft comprised a 0.5cm thick plate of cortico-cancellous bone, measuring 1cm from inferior to superior borders, and 2.5cm between the lateral margins. This was obtained from the genial prominence at a level inferior to the tooth roots, and anterior to the mental foramina, thus avoiding damage to both the teeth and

the mental neurovascular structures. There was no excessive intraoperative bleeding, while minor haemorrhage was controlled with diathermy. A manovac drain was inserted into the floor of orbit region and removed one day post-operatively. Antibiotic prophylaxis included Ampicillin 1 gr intraoperatively and Augmentin postoperatively. A continuous subcuticular prolene suture was removed from the subciliary incision one week later and postoperative radiographs ordered (Figs 2 B&C). Surgery was successful with a good post-operative cosmetic result and minimal ectropion that rapidly resolved. Post operative ocular function rapidly returned to normal, while there was no infraorbital paraesthesia or loss of seventh nerve function. The histopathological diagnosis was consistent with a fully excised intramedullary cavernous haemangioma (Fig 1C).

**Discussion:** The lesion was considered unsuitable for treatment by embolization, due to difficulty in identifying a convenient vessel for such treatment, as well as with regard for the delicacy of the orbital contents. Instead, the en-bloc resection allowed complete removal with no potential recurrence, and also produced an excellent cosmetic and functional result. Importantly, further procedures to remove metallic plates were avoided by using resorbable plating material. Although relatively little bone was available for harvesting from the chin, use of bone from this site reduced surgical morbidity relative to iliac crest bone, while the cortical chin bone was well suited for reconstruction of the orbital rim. The strength of the resorbable implants proved sufficient for support of the graft. One possible disadvantage is the cost of the LactoSorb material relative to metallic plates, although this must be seen in light of the surgical result and absence of necessity to reoperate.

## PP220

**Speciality:** Biomaterials

**Low - Dose Sodium - Fluoride May Have an Antioxidant Effect: A Preliminary Report**

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Sodium-fluoride (NaF) has dual-effect in which it shows anabolic effect at low-dose and toxic-effect at high-dose on bone. The aim of this study was to investigate the effects of Vitamin-K1 and NaF on rat femoral fracture-healing. As part of the study, malondialdehyde (MDA), glutathione peroxidase (GPx) and superoxide dismutase (SOD) were analyzed in the erythrocytes of 7-month-old,

20 male Wistar albino rats (Control- (n=10) and NaF-groups (n=10)) which underwent femoral-osteotomy followed by miniplate-screw fixation. While NaF-group received 12mg/kg/day NaF in drinking-water for 14-days, the Control-group received only drinking-water. Two-weeks after operation, we found statistically significant increase in MDA-level ( $p < 0.05$ ) that returned to preoperative-level 9-weeks after operation in the Control-group. However, there was no statistically significant difference in MDA-level either 2-weeks or 9-weeks after operation when compared to preoperative-level of NaF-group ( $p > 0.05$ ). The GPx-activity decreased at 2-weeks ( $p > 0.05$ ), however, it reached significance 9-weeks after operation ( $p < 0.05$ ) when compared to preoperative-levels in both Control- and NaF-groups. The pattern of SOD-activity was as same as GPx-activity in the Control-group, whereas, although it was not significant SOD-activity increased at 2-week and decreased even below the preoperative-level at 9-week in the NaF-group ( $p > 0.05$ ). To our knowledge, there is no research investigated the changes of oxidative system in low-dose fluoride intake to create anabolic effect in bone. Our findings indicate that low-dose NaF may have an antioxidant effect during the inflammation phase of the fracture-healing. In conclusion, NaF may have an antioxidant effect in low-doses.

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## PP221

**Speciality:** Other: Dental Education

**The Level of Dental - Students' Self Confidence and Competence in Essential Skills of Dentistry**

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**Background:** Good technical skills are the most important aspect of a high-quality dentist. Therefore, an achievement of self-confidence and competence in clinical and technical skills by dental-students are essential.

**Aim:** The aim of this study was to evaluate the dental-students' perception of competence in each essential skills of dentistry at the time of graduation.

**Methods:** A questionnaire (Wanigasoorya 2004), which elicits dental-students' self confidence in 46 essential skills on a three-point scale (1 = poor, 2 = satis-

factory, 3=very good), was distributed to 26 dental-students (17 female; 9 male) soon after their graduation. A mean score was calculated for each skill and the skills were then ranked from 1-46; rank 1 indicating least confident and 46 the most confident.

**Results:** Oral malignancy-premalign lesions, cardiac arrest were the subjects in which students were least-confident within all skills, whereas teeth extractions, total-partial prosthetic rehabilitations, to identify the caries, to understand the ethical principals and to maintain the asepsis were the skills in which the students were most-confident. 50% of students' score (n=13) were below the average score. The overall self-confidence of the students were rated as  $98.2 \pm 18.06$  (min=70, max=131).

**Conclusion:** There is need to develop dental curriculum to improve the essential skills in which dental-students were lesser confident.

## PP222

**Speciality:** Other: Dental Anesthesia

### Comparison of Infiltrative Injection - and Inferior Alveolar Nerve - Block Injection - Induced Pain Perception

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**Background:** Infiltrative anesthesia is indicated for the mandibular anterior and first-premolar teeth extractions, while inferior alveolar nerve (IAN)-block anesthesia is applied for the mandibular second-premolar and molar teeth extractions. However, despite of its' relatively more disadvantages, unnecessary IAN-block use in rest of the mandibular teeth extractions is evident in various textbooks.

**Aim:** The aim of this study was to determine the pain perception of patients to buccal/lingual-infiltrative-anesthesia and standard IAN-block/buccal-infiltration-anesthesia applied for mandibular first-premolar extractions.

**Methods:** This prospective study consisted of 31 orthodontic patients, 11- to 23-years-old, requiring identical bilateral mandibular first-premolar extractions. Patients received buccal/lingual infiltration injection (40mg/ml articain HCl and 0.006mg/ml epinephrine HCl) opposite the mandibular first-premolar on one side and IAN block/buccal infiltration injection on the other with

a 27-gauge syringe without the use of a topical local anesthetic. Evaluation of anesthetic success was made upon probing. Following each injection and extraction, patients were asked to describe their pain level by scoring on a visual analog scale of 0 to 10, where 0=no pain and 10=severe pain.

**Results:** Anesthetic success rates of both techniques were 100%. IAN-block/buccal-infiltration-injection was significantly more painful than buccal/lingual-infiltration-injection ( $p < 0.05$ ), and none of the patients reported that they prefer the IAN-block/buccal-infiltration-injection when compared with buccal/lingual-infiltrative-injection.

**Discussion:** IAN-block has several disadvantages. IAN-block/buccal-infiltrative-injection-induced high pain perception determined in this study seems to be one of these.

**Conclusion:** The IAN-block/buccal-infiltration-injection causes significantly more perceived pain than does the buccal/lingual-infiltration-injection. IAN-block/buccal-infiltrative-injections for mandibular first-premolar anesthesia should be avoided as a first anesthetic technique of choose.

## PP223

**Speciality:** Implants

### Vitamin - K1 may Accelerate Oral Implant Osseointegration Four - Weeks after Implant Insertion: A Preliminary Study

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**Introduction:** Absence or lack of osseointegration is the most important factor in implant application success. Recent studies reported that Vitamin-K1 may increase bone mineralization which could be the result of increase in affinity of calcium to the OH-apatite crystal and control on OH-apatite crystal growth.

**Aim:** The aim of this study was to investigate the effect of Vitamin-K1 on implant osseointegration.

**Methods:** One-year-old male New Zealand rabbits (n=9) were randomly divided into two groups as Control- (n=4) and Vitamin-K1-groups (n=5). Both groups underwent soft tissue dissection followed by self-tapping implant (Southern Implant) insertion to the femurs. While Control-group received triglyceride-oil, Vitamin-K1-group received

12mg/kg/day Vitamin-K1 in triglyceride-oil via gavaj for 14-days. Rabbits were sacrificed at the end of 4-week. Implants with surrounding bony tissue were removed and stored in 10% formaldehyde. Bone-implant histological sections were prepared and osteoid-implant-contact (OIC), bone-implant-contact (BIC) and bone-and-osteoid-implant-contact (BOIC) fractions were analyzed histomorphometrically. Data were analyzed with Mann Whitney-U test using SPSS.

**Results:** The results were given as mean percentage  $\pm$  SD. The results were as follows: OIC: Control =  $10.7 \pm 6.2$ , Vitamin-K1 =  $14.6 \pm 7.9$  ( $p=0.624$ , power = 0.14); BIC: Control =  $14.1 \pm 5.3$ , Vitamin-K1 =  $23.9 \pm 2.8$  ( $p=0.014$ , power = 0.93); BOIC: Control =  $24.9 \pm 8.8$ , Vitamin-K1 =  $38.6 \pm 9.4$  ( $p=0.050044$ , power = 0.62).

**Discussion:** The results suggest that Vitamin-K1 may increase bone tissue surrounding implants, which was evidence with increase in BIC fraction. The findings belong to OIC and BOIC may alter with the studies will use more implant, when considering the statistical powers of both parameters.

**Conclusion:** Vitamin-K1 may accelerate oral implant osseointegration four-weeks after implant insertion. There is need further studies to reach precise decision.

## PP224

**Speciality:** Biomaterials

### Combine Effect of Vitamin - K1 and Low - Dose Sodium Fluoride ( NaF ) on Biochemical Markers of Bone Turnover and Oxidative - Damage During Bone - Fracture Healing

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**Background:** There have been accumulating studies report individual effects of NaF and Vitamin-K1 on bone-healing. It was suggested that while NaF increases bone mineral density via induction of osteoblastic activity, Vitamin-K1 is capable to accelerate bone fracture healing.

**Aim:** The aim of this study was to investigate the combine effect of Vitamin-K1 and low-dose NaF on bone fracture healing.

**Methods:** 7-month-old 40 male Wistar rats randomly divided into Control- ( $n=10$ ), Vitamin-K1- ( $n=10$ ), NaF- ( $n=10$ ) and Vitamin-K1&NaF- ( $n=10$ ) groups, and the rats underwent osteotomy to create fracture which

fixed with miniplate-screw rigid-fixation at the right- and left-femurs. All groups received the supplements according to administration protocol specific to each group starting a day before operation for 14-days post-operatively. Biochemical markers of bone turnover (bone specific alkaline phosphatase (BAP), N-telopeptide (NTX)) and oxidative-damage (malondialdehyde (MDA)) were analyzed in serum and erythrocytes obtained before, and 2- and 9-weeks after operation.

**Results:** Although BAP-activity decreased significantly in Control-group at 2- and 9-week when compared to preop-level ( $p<0.05$ ), there were no significant changes in both Vit-K1- and NaF-groups. Interestingly, BAP-activity increased significantly at 2-week ( $p<0.05$ ) and returned to preoperative level at 9-week postoperatively in the Vit-K1-NaF-group. The pattern observed in the MDA-activity was as same as the changes in BAP-activity except MDA-activity returned to preop-level in the Control-group 9-week after operation. No statistically significant difference in NTx-level was observed between and within the groups.

**Conclusion:** Combine administration of NaF and Vitamin-K1 may accelerate bone fracture healing; however, there is need histomorphometrical analysis to reach precise conclusion.

## PP225

**Speciality:** Trauma,

### Influence of the Mandibular Third Molars' Presence and / or Absence on the Mandibular Fracture Locations

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**Background:** Whether mandibular third molars (M3s) without clinical symptoms should be surgically removed remains controversial, and an association between impacted M3s and the mandibular fracture location has been a matter of discussion in the literature.

**Aim:** The aim of this study was to investigate the influence of M3s' presence and/or absence on the mandibular fracture location.

**Methods:** In this retrospective study, 40 mandibular fracture patients, (11 female, 29 male) admitted to Süleyman Demirel University Faculty of Dentistry between 1997-2008, were evaluated. On the patients' orthopantomography, presence and/or absence of M3s and the number



or location of mandibular fracture lines were determined.

Patients were divided in to 4 groups as follows:

Group I: Bilateral-erupted-M3s (n=14),

Group II: Bilateral-impacted-M3s (n=7),

Group III: Unilateral-M3-absence (n=8),

Group IV: Bilateral-M3s-absence (n=11). The results were given percentage (%) within each group. **Results:** An occurrence rate of "coronoid/condyle/ramus fractures" was 21% in Group-I, 29% in Group-II, 50% in Group-III, 9% in Group-IV. Incidence of "corpus/angulus fracture" rate was 79% in Group-I, 71% in Group-II, 50% in Group-III, 91% in Group-IV. Finally, "angular fracture" rates were 50% in Group-I, 57% in Group-II, 13% in Group-III, 18% in Group-IV. 92% of "angle fractures" were related with both bilateral impacted/erupted-M3s in which demonstrated decrease in the incidence of "coronoid/condyle/ramus fractures" (24%) when compared to Group-III (50%).

**Conclusion:** These results suggest that unilaterally existing M3 should be removed to decrease incidence of "coronoid/condyle/ramus fractures" which require relatively complex treatment modalities.

## PP226

**Speciality:** Other: Benign Tumor

**Peripheral Ameloblastoma: An Etiology from Surface Epithelium? Report of a Case**

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**Objectives:** Peripheral ameloblastoma is a rare odontogenic tumour that accounts for 1% for all ameloblastomas. It is typically a slow, benign, single, sessile, asymptomatic lesion.

**Methods:** A 61-year-old male referred to our clinic with a big nodule on his left maxiller anterior region. A biopsy was performed under local anesthesia and a diagnosis of peripheral ameloblastoma was made. **Results:** A resection under general anesthesia was made and histology revealed peripheral ameloblastoma. An oro-antral fistula occurred secondary to surgery and it was closed with local flap. Primary wound healing occurred.

**Conclusion:** Peripheral ameloblastoma in a non-tooth region of the maxilla is presented and this finding supports an etiology from surface epithelium.

## PP227

**Speciality:** Orthognatic Surgery,

**Orthodontic and Orthognatic Bimaxillary Surgical Correction of a Severe Class III Open Bite Deformity**

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In most of the cases, skeletal class III open bite malocclusion is related to alterations in both maxillary and mandibular growth. If the alteration is beyond the orthodontic treatment limits, orthodontic decompensation and orthognathic surgical correction is inevitable to achieve a good occlusion and a harmonious facial profile. In this case report, orthodontic and orthognathic bimaxillary surgical treatment of a 20 year old female patient with severe skeletal and dental class III open bite deformity is presented. The patient had a retrognathic and transversally deficient maxilla with excessive anterior and posterior vertical development. Downward rotation of the posterior maxilla and posterior and downward rotation of the mandible were prominent. After surgically assisted rapid maxillary expansion and orthodontic decompensation procedures, 10 mm of anteroposterior discrepancy was determined. During the surgical process, for sagittal correction, 5 mm of maxillary advancement and 5 mm of mandibular set back were realized. For vertical correction, 2 mm of maxillary impaction both at the anterior and posterior regions and anteriorly upward mandibular rotation were performed. Le Fort I osteotomy for maxillary correction and bilateral sagittal split osteotomy for mandibular correction were used. After the post surgical orthodontic treatment ideal overbite and overjet relationship with ballanced occlusion was accomplished and the facial aesthetics improved.

## PP228

**Speciality:** Temporomandibular Joint,

**Utilizing Radiofrequency Energy to Eliminate Adhesions in Temporomandibular Joints with Internal Derangement**

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TMJ pain and related dysfuntions are common symptoms that decrease the life quality. Most of these patients receive conservative treatment. When

conservative treatments as physiotherapy, occlusal splint and combinations are not sufficient to alleviate the symptoms, there is one more option before considering invasive surgical procedures. In the last two decades, arthroscopy and arthrocentesis have gained popularity as minimally invasive procedures. These procedures have proved their efficacy for patients who has temporomandibular joint disorders such as disc displacements, osteoarthritis or inflammatory arthritis. The aim of this study was to report the results of treatment in 35 patients (49 joints) who underwent arthroscopic lysis and lavage utilizing a radiofrequency device for ablation, shrinkage and release of adhesions.

## PP229

**Speciality:** Other: Nuclear Morphology

### **A Nuclear Morphologic Study on Oral Epithelium**

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The purpose of this study is to compare the nucleomorphology of oral epithelium in smoking patients with respiratory tract cancer, with the healthy patients who are smoking and also with the healthy patients who have never smoked. Smear has been obtained from the buccal mucosa of patients belonging to these three groups. Measurements were made on the preparates stained with feulgen at 20X magnification using autocyter QUIC DNA image analysing program. There was no significant difference between the experimental and control group in the aspect of geometrical properties but there was a statistically significant difference between the texture properties. All the DNA histograms showed diploid population. It is concluded that, although affected by the same carcinogen the resistance of different mucosa with the same epithelium may differ.

## PP230

**Speciality:** Implants,

### **Installation of Dental Implant in Growing Patients: A Case Report**

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The sufficient ridge dimension and facial cortical plate are essential for dental implantation and esthetic rehabilita-

tion of the traumatized anterior maxillary teeth. Since most of the trauma patients are young and still growing, several factors have to be considered in treatment planning. Implant treatment which interferes with growth of the jaw bone often has to be postponed until the end of the craniofacial or skeletal growth. Because of the risk of alveolar bone resorption after tooth extraction, implant sites may require an augmentation procedure for the achievement of better functional and esthetic results. The alternative treatment to maintain the amount of available alveolar bone is preservation of the post-traumatic teeth or roots in the alveolar process for implant treatment. In this poster, we will present a 14 year old boy in which the alveolar bone is preserved with traumatized maxillary central incisors until implant-placement.

## PP231

**Speciality:** Reconstruction,

### **Complications of Fracture Management with Conventional Techniques**

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The mandible is the second most common fractured part of the maxillofacial skeleton because of its position and prominence. In the management of any bone fractures, the goals of treatment are to restore proper function by ensuring union of the fractured segments and reestablishing preinjury strength. Basic principles of orthopedic surgery is also apply to mandibular fractures including reduction, fixation, immobilization, and supportive therapies. Wires, plates and screws are used for the fracture fixation conventionally. In 2000, a 20 year-old male patient with mandibular symphysis and ramus fractures caused by a motorcycle accident was treated with the simple wiring fixation technique. In 2008, this patient applied to our clinic is seeking treatment for the pain in his mandibular and auricular regions. During the examination; an infection, bone resorption and also a break-out at the wiring is observed. In the management, the fixation wires are removed under the local anesthesia and antibiotics are prescribed. After a 30-day period, there is an improvement in the pain and infection. As a conclusion, although the wiring fixation technique is cheaper and simple; some complications may occur.

**PP232****Speciality:** Other: Oral Pathology**Dentigerous Cyst Mimicking an Odontogenic Keratocyst Histologically a Case Report**Fulya Özbey ERKILINÇ, Çağrı DELİLBAŞI, Kemal ŞENÇİFT, Sedat ÇÖLÖĞLÜ*Yeditepe University, Faculty of Dentistry, Istanbul, TURKEY*

The dentigerous cyst is the second most common odontogenic cyst and originates from reduced enamel epithelium. It is most prevalent in the third molar region and is therefore a common cause of radiolucency associated with the crown of an impacted third molar. Odontogenic keratocyst (OKC) is a cyst of tooth origin with an aggressive clinical behavior including a high recurrence rate. OKCs are generally thought to be derived from either the epithelial remnants of the tooth germ, or the basal cell layer of the surface epithelium, and generally occur as a multilocular or unilocular radiolucency, often in a dentigerous relationship. A 24 year-old female patient was referred to Yeditepe University Faculty of Dentistry, Oral and Maxillofacial Surgery Department complaining of intermittent and slight pain of the right mandibular retromolar area. Clinical examination revealed a partially erupted third molar with pericoronal inflammation. In panoramic radiograph, distal root and the impacted part of third molar was associated with a well-defined unilocular radiolucency, approximately 2.0x1.5cm. Patient was prescribed antibiotics and underwent third molar surgery with simultaneous cyst enucleation. A fibrous cyst capsule was processed for biopsy. Histologic examination of the specimen revealed well morphodifferentiated dentigerous cyst with parakeratosis on the thin squamous epithelium lining, salivary gland lobules and rushton hyalin bodies. Consequently, the definitive diagnosis was dentigerous keratocyst. The case reported above fits well with the classic radiographic and clinic description of a dentigerous cyst. However, histopatologic examination demonstrates an OKC. In 2 years follow-up period, patient showed uneventful healing without recurrence.

**PP233****Speciality:** Trauma**Lower Lip Reconstruction by Tongue Flap**Majid ESHGHPOUR, Amin RAHPEIMA*Mashad, IRAN*

Lower lip is an oral cavity functional structure appearance and it is important esthetically. Avulsed lower lip in traumatic lesions causes dysfunction & deformity. Repairing this region includes reversing muscle activity

and covering the region by a tissue with a color similar to the prior one. That must be accordance to environs healthy tissue. Multiple surgical methods have been offered to reconstruct the region. In this topic we are relating the lower lip reconstruction by using tongue flap, which has been successfully performed. The patient is 40 years, with avulsed lower lip in trauma accident, which has been reconstructed with using tongue flap. Utilized flap type is "posteriorly based lateral tongue flap", that, its reconstruction performed in 2 stages (divided pedicle of flap after 3 weeks). Final revision accomplished by using "labially based bipedicle flap".

**PP234****Speciality:** Trauma**Treatment of Avulsed Injuries in Frontal Region with Galea Flap and Skin Graft**Majid ESHGHPOUR, Amin RAHPEIMA, Reza MEHRAVARAN*Mashad, IRAN*

**Introduction:** Treatment of avulsed injuries in maxillofacial regions is one of the most difficult operations with variable results in maxillofacial surgeries. In this article we are presenting one case, in order to review this method. The patient is a girl of 8 years old, which was involved in a car accident and suffered a severe avulsed injury in the frontal region. The bone was without periosteum and exposed. Covering of exposed bone with direct skin graft is impossible. The other treatment method is to eliminate bone cortex, formatting granulation tissue & then graft or repair it with secondary epithelialization. This method has unpredictable & unfavorable esthetic outcome. In this case covering the cortical bone is done by galea flap and then it was reconstructed by skin graft with acceptable results. Primary photography, stages of operation, final photography & control photography after 4 month are supplemented.

**PP235****Speciality:** Orthognathic Surgery**Comperative Study of EMG Changes Before & After BSSO Surgery in Patient with Mandibular Prognathism**Majid ESHGHPOUR, Baratollah SHABAN, Morteza SAEIDI*Mashad, IRAN*

**Introduction:** The main goals of orthognathic surgery are to restore cosmetic and function. Mandible prognathism is one of the problems in modern societies, which is the result of ordinary increase in mandible growth. Various

surgical methods, like sagittal osteotomy, are present to treatment this deficiency. Master muscle is one of the significant and effective muscles in mastication, which its morphology and position variation is effective on masticating. Various methods are present for peruse muscle's function, EMG evaluation, is one of them.

**Method:** Electromyography evaluation of master muscle was done in 3 periods (a week before surgery, 3 & 6 month postoperative), and the results were analyzed. The Survey of the obtained data's, in preoperative, 3 month later (post), and 6 month later (follow), with Wilcoxon test indicated that significant difference (p:0.01), existed in preoperative and postoperative data. Also, this significant difference (p: 0.01) have been between postoperative and follows data too. But comparing preoperative and follow data didn't show any significant statistic difference.

**Conclusion:** This research shows that electric activity of master muscle in patients with mandibular prognatism, pursuant with mandibular set back by BSSO method, initially had a significant reduction after surgery (3 month), but after 6 month it's approximately equal to preoperative.

## PP236

**Speciality:** Other: Oral Pathology

**Focal Epithelial Hyperplasia (Heck's Disease): Report of a Case with PCR Detection of Human Papillomavirus DNA.**

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Abstract Focal epithelial hyperplasia (FEH) or Heck disease, is a rare viral infection of the oral mucosa caused by HPV 13 or HPV 32. In Caucasians there have been only a few cases reported. We present a case in Turkey in a young Caucasian girl in which HPV 32 was detected with PCR analysis.

## PP237

**Speciality:** Other: Laser Oro-Facial Surgery

**CO<sub>2</sub> Laser Evaluation as a Surgical Aid in the Management of Oro - Facial Lesions**

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The biological effects of the carbon dioxide (CO<sub>2</sub>) laser was evaluated using the specific absorption of CO<sub>2</sub> laser

by biological tissue to achieve temperature – mediated localized injury. The clinical application of CO<sub>2</sub> laser as a surgical aid in the treatment of several oral and maxillofacial tumours and lesions was evaluated, by using the laser in the focusing mode as a cutting tool, and the defocusing mode as a photocoagulator. Thirteen patients were included (having 14 lesions, 7 of these lesions were intra oral and 7 extra oral). The CO<sub>2</sub> laser was used as a cutting and photo-coagulating tool. The results showed that the CO<sub>2</sub> laser was effective in minimizing the intra operative blood loss, especially in the treating of highly vascular lesions, it was also effective in reducing the post operative pain and swelling or edema, and on follow up, the patients had uneventful healing.

## PP238

**Speciality:** Reconstruction,

**Facial Implant Based Nasal Epithesis in a Midfacial Burn: A Case Report**

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**Introduction:** The prosthetic rehabilitation is an alternative reconstructive technic in functional-aesthetic facial reconstruction when the conventional reconstructive surgery can not be applied either because of the psychologic or physiological conditions of the patient or because of an excessive substance loss. A nasal epithesis supported with facial implants will be presented.

**Materials and Methods:** Seventy- four years old women was referred to Plastic and Reconstructive Surgery Department with an accidental burn in the nasal and mid facial region. Inguinal free flap was used for reconstruction of the face. For the reconstruction of the nose, three facial implants were placed on the anterior maxilla and one facial implant on the glabella in Department of Oral and Maxillofacial Surgery to support the nasal epithesis. Than nasal epithesis was made in Department of Prosthetic Dentistry.

**Result:** Prothethic rehabilitation may be a good alternative for the facial reconstruction especially if the patient is medically compromised for serial complicated operations.

**PP239****Speciality:** Other: Supernumerary Teeth**Supernumerary Permanent Fourth Teeth a Report of Six Cases**

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Fourth molars or distomolars are situated behind the third molar and are compressed mesiodistally. The presence of supernumerary teeth is not uncommon in the general population. There have been very few documented cases of bilateral maxillary or mandibular supernumeraries, distal to the third molars. Mandibular fourth molars are more often than maxillary ones. They occur more frequently in patients with a family history of such teeth but it is rare to find multiple supernumeraries in individuals with no other associated disease or syndrome. The majority of supernumerary teeth are considered to develop as a result of horizontal proliferation or a hyperactivity of the permanent or deciduous dental lamina. They appear more frequently in males than in females. They are not completely developed, have a rudimentary conical shape, and may often be displaced palatally. Supernumerary teeth may affect the permanent dentition if not removed. On this report, 8 maxillary distomolar described in 6 (5 female, 1 male) patients suffering from the pain in posterior region of the maxilla. 2 of cases had bilateral maxillary distomolars, others had unilateral maxillary distomolars. They were rudimentary in shape and smaller in size and not completely developed. All impacted teeth were extracted during apart sessions under local anesthesia.

**PP240****Speciality:** Other: Ectodermal Dysplasia**Ectodermal Dysplasia (A Case Report)**

Berfin KAHRAMAN, Beyza KAYA, Ediz KALE, Halil KAYA, Filiz Acun KAYA,

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Patients with hereditary hypohidrotic ectodermal dysplasia, which is usually transmitted as an X-linked disorder, usually exhibit a soft, thin, dry skin with partial or complete absence of sweat and sebaceous glands; defective hair, nail and iris formation; atrophic rhinitis; deficiency of lacrimal, pharyngeal, conjunctival and salivary glands; prominent forehead; saddle-type nose; thick lips and dysphonia. As oral findings they manifest anodontia or

oligodontia, malformation of any teeth present, both deciduous and permanent dentitions. They are truncated or cone-shaped. There is no treatment for the condition, although partial or full dentures should be constructed for both functional and cosmetic purposes. But they must be reconstructed periodically as the jaws continue to grow. This clinical report describes the diagnosis and treatment with fabrication of an overlay removable partial dentures for a patient ectodermal dysplasia in a 15-year-old man. Diagnosis was made with evaluation of clinical examination, panoramic radiograph; lacrimal and salivary gland scintigraphy, measurement of bone mineral density and hand-wrist graphy, investigation of endocrinal and biochemical test results. His dental history included oligodontia of primer and seconder teeth. The treatment included removable partial dentures fabricated to establish an acceptable therapeutic occlusal vertical dimension, followed by definitive overlay removable partial dentures.

**PP241****Speciality:** Implants,**Diagnosis and Implant Supported Fixed Prosthesis Treatment of a Patient with Sjogren's syndrome**Berfin KAHRAMAN, Beyza KAYA, Ediz KALE, Halil KAYA, *Dicle University, Faculty of Dentistry, Dept. of Oral and Maxillofacial Surgery, Diyarbakir, TURKEY*

Sjögren syndrome (SS) is a chronic autoimmune disease characterised by a progressive lymphocytic and plasma cell infiltration of the exocrine glands, predominantly salivary and lacrimal, with varying degrees of systemic involvement. SS can be isolated (primary SS) or associated with other autoimmune diseases such as rheumatoid arthritis, systemic lupus erythematosus, or scleroderma (secondary SS). Chronic inflammation compromises the glands' function and leads to xerostomia and xerophthalmia, the main expressions of the disease in adults. Signs and symptoms at disease onset were mainly recurrent parotid swelling followed by sicca symptoms. Abnormal laboratory tests were found in the majority of cases. The diagnosis in our male patient was made using sets of criteria based on a combination of clinical, serological and salivary gland histopathological findings, lacrimal and salivary gland scintigraphy. This case reports diagnosis and implant supported fixed prosthesis treatment of a patient with SS. 2 implants (Silhouette IC, Biolok, USA) were applied to numbered 34 and 37 places. 4-unit fixed partial denture was applied. Evaluation of clinical and radiographic study implant supported fixed prosthesis treatment was succesful during 2 years of function in patient with SS.

**PP242****Speciality:** Orthognatic Surgey,**Osseous Genioplasty: A Case Report**Berfin KAHRAMAN, Gülten ÜNLÜ, Atılım AKKURT,  
Jalen Devocioğlu KAMA*Dicle University, Faculty of Dentistry, Dept. of Oral and  
Maxillofacial Surgery, Diyarbakır, TURKEY*

The chin is an important and often neglected feature of facial balance. As an important structure of the face, the chin contributes the harmony of the aesthetic plane of the nose-lip-chin. During social intercommunication, the chin's profile contour is as visually important to others as the frontal contour. A deficient chin manifests mainly in the antero-posterior or the vertical planes. Genioplasty is a useful procedure in aesthetic surgery and often can be combined with other procedures to obtain an optimal aesthetic outcome. There are many methods available to treat microgenia: osteotomies, alloplastic augmentation, and autogenous implants. Genioplasty is an old and useful procedure for chin-plasty. Genioplasty is well recommended for most patients, especially in severe, complicated, or multiple surgery cases. In this case we presented a 16 years old female patient with the main complaints of chin deficiency and maxillary diastemas. Following a successful orthodontic treatment, genioplasty was performed with using the alloplastic augmentation method.

**PP243****Speciality:** Implants,**Long Term Evaluation of Osteoblastic Activity After Dental Implant Placement by Using Scintigraphy**Abdullah KALAYCI, Ercan DURMUŞ, Güngör TAŞTEKİN,  
Kubilay IŞIK, Özgür İNAN*Selçuk University, Faculty of Dentistry, Dept. of Surgery,  
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**Aim:** The aim of this study was to evaluate long term osteoblastic activity after placement of 2 dental implants to totally edentulous mandible by using scintigraphy.

**Patients and method:** Totally edentulous 7 patients were included to the study. Two implants were inserted to canine regions and removable prostheses were fabricated after 3 months. Whole-body bone scintigraphies were taken from the patients before implant insertion, 3 months after implant placement just before the prostheses were made, and 1 year after implant insertion.

Count/pixel rates of the implant sites were calculated with quantitative analysis on the scintigraphies. The differences among the scintigraphies taken in those 3 periods were evaluated statistically.

**Results:** No complications related to the implants were observed in the patients during the follow-up period. Statistical analyses revealed that standardized count/pixel rates of the scintigraphies taken in 3. month were significantly higher ( $p < 0.05$ ) than preoperative ones and the count/pixel rates of 1. year scintigraphies were significantly lower ( $p < 0.05$ ) than 3. month's values. The count/pixel rates of the scintigraphies taken after 1 year were relatively higher than first scintigraphies but the difference was statistically insignificant ( $p > 0.05$ ).

**Conclusion:** Highness of the osteoblastic activity in 3. month shows that osseointegration existed and it was still continuing as well. The proximity of the values after 1 year to the preoperative period implies that osteoblastic activity returned to normal limits. In addition to clinical findings, the success of the dental implants was confirmed by scintigraphy and 2 dental implants are found sufficient to use with removable total mandibular prostheses.

**PP244****Speciality:** Other: Bening Tumors**Intraoral Lipoma; Benign, Rare Oral Cavity Neoplasm (Case Report)**Ümit KARACAYLI, Ayper KAYA, Özkan ÖZKAYNAK,  
Hakan AVSEVER, Yılmaz GÜNAYDIN*G.A.T.A. Dentistry Sciences Center, Dept. of Oral and  
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Lipomas are benign mesenchymal neoplasms composed of mature adipocytes, usually surrounded by a thin fibrous capsule. They are the most common soft tissue tumour, and about 20% of cases occur in the head and neck region. However, only 1% to 4% of cases involve the oral cavity. Oral lipomas represent 0.5% to 5% of all benign oral cavity neoplasms and usually present as painless, well-circumscribed, slow-growing submucosal or superficial lesions, mainly located in the buccal mucosa.

**PP245****Speciality:** Temporomandibular Joint,**Treatment Outcome of Physiotherapy, Occlusal Splint and Antidepressant Drug Administration in Patients with Temporomandibular Joint (TMJ) Anterior Disc Displacement with Reduction (ADDR)**

Ayşe İlknur KARADUMAN, Bilge ÇADIR, Nuri ÖMÜRBEK, Ahmet YEŞİLDAG, İbrahim EREN, Serpil SAVAŞ, Şenol TÜZÜM

*Süleyman Demirel University, Faculty of Dentistry, Isparta, TURKEY***Introduction:** The most widely accepted treatment modality for temporomandibular disorders are occlusal splints, pharmacological- and physical-therapies, however comparing these treatment modalities in patients with ADDR have not been determined previously.**Aim:** The aim of this study was to compare treatment outcome of physiotherapy, occlusal-splint and antidepressant-therapies in patients with ADDR.**Materials and Methods:** 48 consecutive patients with ADDR were recruited to this study. Patients were randomly allocated to 3 groups (physiotherapy, occlusal-splint and antidepressant). Clinical findings were recorded before treatment and 1-, 3- and 6-months after the initial of the treatment with Research Diagnostic Criteria/Temporomandibular Disorders Axis-I. MRI was obtained pre-treatment and 6-months after the initial of the treatment. Comparison of the follow-up scores within the groups were analyzed with Wilcoxon, between the groups with Kruskal-Wallis analysis ( $p < 0.05$  was accepted as statistically significant).**Results:** The results showed that there were increase in maximum-incisal-opening between pre-treatment and 6-months after the initial treatment in all groups, however, it was not statistically significant in the antidepressant-group ( $p = 0.059$ ) at 6-month. Physiotherapy was the most effective treatment in reduction of deviation. However, antidepressant and occlusal splint treatments were the most effective in elimination of TMJ pain on palpation. In MRI, 46 out of 67 joints with ADDR returned to normal at 6-months. However, no significant difference in outcome was observed between the groups.**Conclusion:** The results suggest that choose of treatment modality for TMJ patients with ADDR should be based on patients' chief complaint (This research was supported by Süleyman Demirel University Scientific Research Unit, Project No:1160-D-05).**PP246****Speciality:** Orthognathic Surgery,**The Multidisciplinary Treatment of an Atypical Class II Patient**Burçak KAYA, Ayça Arman ÖZÇIRPICI, Sina UÇKAN  
*Başkent University, Faculty of Dentistry, Department of Orthodontics, Ankara, TURKEY*

Correction of skeletal Class II malocclusions characterized with dimensional and positional disharmonies between the jaws and accompanying tooth irregularities requires orthodontics combined with orthognathic surgery to obtain satisfying esthetic results. In this case report the orthodontic and surgical treatment of an adult patient having severe skeletal Class II malocclusion due to retrognathic mandible and an atypical dental Class II relationship is presented. The patient with 20 years 5 months of chronological age complained of the posterior position of his lower jaw, unpleasant look of his anterior teeth and having difficulty in chewing. In the clinical examination a plain profile, retrusive lips, prominent chin, bilateral buccal nonocclusion, extremely increased overbite and asymmetric overjet that increased on the right and decreased on the left side was observed. The treatment started with leveling the teeth and proclining the left anterior teeth with fixed orthodontic appliances. The asymmetric positions of the anterior teeth and the dental compensation due to the skeletal Class II relationship were corrected during this presurgical orthodontic phase. During the following surgical phase the mandible was moved 9,5 mm forwards with sagittal split ramus osteotomy, then the chin was positioned 4mm backwards and 3 mm downwards with genioplasty. As a result of the multidisciplinary treatment the patient gained a proper overjet, overbite, good occlusal functions and an esthetic smile. The difficulty in chewing was eliminated, a pleasing and proportionate facial look and balanced profile was obtained.

**PP247****Speciality:** Orthognathic Surgery,**The Orthodontic & Surgical Treatment of a Skeletal Class III Laterognathic Patient**

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*Başkent University, Faculty of Dentistry, Department of Orthodontics, Ankara, TURKEY*

Treatments of adult patients showing skeletal Class III malocclusions or severe facial asymmetries are not satisfying, if realized only with orthodontic tooth

movements. Therefore, these patients are usually treated with the combination of orthodontics and orthognathic surgery. In this case report the orthodontic and surgical treatment of an adult showing severe facial asymmetry and skeletal Class III malocclusion is presented. The main complaints of the patient having 18 years 3 months of chronological age were the asymmetric look of his face, anterior position of his mandible and having difficulty in speaking and chewing. In the clinical examination facial asymmetry due to the laterognathic mandible, concave profile, unilateral posterior cross bite, insufficient overbite and negative overjet was observed. The model analyses showed arch length excess in both jaws due to the absence of all first molars. The treatment started with fixed orthodontic appliances. The teeth were aligned and the space excess of the extracted first molars were closed by mesializing the second and third molars using NiTi open coil springs on rigid arch wires. After the dental compensation due to the skeletal Class III relationship was corrected, the maxilla was asymmetrically moved forward and impacted with Le Fort 1 osteotomy, the mandible was asymmetrically moved backwards with sagittal split ramus osteotomy. With the correction of the skeletal relationship, the asymmetry of the face was eliminated and a satisfying facial and dental appearance was obtained. The patient gained a proper overjet, overbite, good occlusion with proper chewing and speaking functions.

## PP248

**Speciality:** Reconstruction,

### **Management of Chronic Suppuratif Osteomyelitis: Case Report**

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Osteomyelitis is an inflammatory condition of bone that involves the medullar cavity and has a tendency to progress along this space and involve the adjacent cortex, periosteum, and soft tissue. Osteomyelitis, if left untreated, the infection can become chronic and cause a loss of blood supply to the affected bone. The devitalized bone acts as a foreign body, perpetuating infection despite long-term antimicrobial therapy. The purpose of this paper is to report a case of a 44 year old

man with chronic suppurative osteomyelitis of the mandible.

**Methods:** Treatment included a pre-surgical course of antibiotics (for two weeks), surgical debridement of the affected bone, removal of the right lower first molar and right lower second premolar, stabilization using reconstruction plate.

**Results:** About two years after operation, the mandible was shown almost normal appearance.

**Key words:** Osteomyelitis, surgery, mandible, chronic, jaw fracture.

## PP249

**Speciality:** Other: Oral Surgery

### **Panoramic Measurements: Effects of the Mandibular Third Molar Status, Gender and Root Number**

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**Objective:** To investigate the effect of mandibular third molar status, gender, and root number on panoramic measurements.

**Materials and Methods:** Standardized panoramic radiography variables compiled from 140 patients

(76 female and 64 male) retrospectively were evaluated. Predictive variables included mesio-distal crown width and inclination of the mandibular molars, vertical and horizontal surface dimension between distal surface of the lower 2nd molar tooth and anterior surface of its ramus, length and width of the mandible ramus and corpus, angle of the mandible gonion, the number of the lower third molar roots, and angulation of roots of the lower third molars.

**Results:** Panoramic measurements varied by the mandibular third molar status, gender, and root number. There were significant interactions of the mandibular third molar status by gender and root number, which may indicate the complexity of model prediction.

**Conclusion:** When panoramic measurements of erupted and impacted mandibular third molars are evaluated, gender of the patients and root number of third molar should be taken into consideration.

**Keywords:** Impaction, Eruption, Third molar, Gender, Root number, Panoramic radiography.



**PP250**

**Speciality:** Implants, Temporomandibular Joint, Orthognatic Surgery, Cancer, Reconstruction, Biomaterials,

**The Distribution of Head and Neck Cancer According to Gender and Age**

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'Head and neck cancer' is a collective term defined on anatomical-topographical basis to describe the malignant tumours of the upper aerodigestive tract. All cancers of this anatomical region comprise

of % 90-95 squamous cell carcinoma. This investigation is arranged to make dentists and oral surgeons conscious of head and neck cancers which encountering more and more. The cases were categorized by primary tumor site and the sex and age group of the patient. 45(24.6%) women and 138(75.4%) men, totally 183 head and neck cancer patients whose ages altering between 14-81 (med=54) were included in this retrospective study. Statistical analyse was performed by SPSS. According to results of this research the number of woman population were statistically significantly lower at larynx and hypopharynx, nasopharynx, oral cavity and oropharynx cancers. The most common age for diagnosed patients were altering between 50-70.

**PP251**

**Speciality:** Cancer

**Analyse of Serum Albumin Levels in Head and Neck Cancer**

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*Süleyman Demirel University, Faculty of Dentistry, Isparta, TURKEY*

In this study; the correlation between stage at presentation and serum albumin levels of patients diagnosed as head and neck cancer, investigated retrospectively. After excluded factors decreasing serum albumin levels in these patients, whether hypoalbuminemia became a marker of nutritional status evaluated in the relationship of advance stages and prognosis. Stage at presentation and clinicopathologic parameters as serum albumin level, totally protein level, totally lymphocyte count which help to determine nutritional status reported simultaneously. The clinical stage of illness at presentation

was determined according to tumor size, number of affected lymph nodes, metastatic status. Patients separated into four groups primary according to their clinical TNM stages then into two groups as early (stage 1 + 2) and advance (stage 3 + 4) stages. Patients also gathered into five groups according to the primer localisation of cancer. Reported clinicopathologic findings related to stage at presentation compared with each other at every clinic TNM stage individually. The alterations for same parameters correlated with at early and advance stage and with diagnosis groups also. Crusal-Wallis Multivariate Analysis, Mann-Withney-U Tests, Chi-Square Tests were used as statistical analysis. Serum albumin level was significantly lower statistically at advance stage of head and neck cancer patients.

**PP252**

**Speciality:** Cancer

**Metastasis from Bladder to the Mandible**

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Of all oral cancers, metastases form a very small percentage. Metastatic tumours to the jaws mostly originate from the breast, lungs, kidneys, bone and prostate. Oral cavity metastases from urinary bladder carcinoma is excidingly rare. In this report transitional cell carcinoma metastisizing from the urinary bladder to the mandible in a 76-year old woman was presented.

**PP253**

**Speciality:** Cancer

**Schwannoma Associated with Submandibular Gland**

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Schwannoma is a neurogenic tumour originating from the Schwann cells of the neural sheath. Salivary gland involvement occurs extremely rarely. The tumour presents as a solitary, slow-growing, usually asymptomatic, encapsulated mass. When associated with salivary glands, the clinical behaviour of this type of tumour may mimic salivary gland neoplasms. In this case report, schwannoma located in the submandibular space and associated with submandibular gland is presented. Schwannomas should be included in the differential diagnosis of salivary gland tumours.

**PP254****Speciality:** Other: Tumors**Ganglioneuroma Arising in the Mandible**Nurgül KÖMERİK, Nedim ÖZER, N. AKSAKALLI*The Ministry of Health, İstanbul Province Administiry Dental Hospital, İstanbul, TURKEY*

Ganglioneuroma, ganglioneuroblastoma and neuroblastoma are collectively referred to as neuroblastic tumours. These tumours constitute around 6% of all tumours in children. Neuroblastic tumours originate from the neural crest cell derivatives of the sympathetic nervous system. Although the tumour may arise from sympathetic nerves in any location, 75-90% of the cases located in the abdomen and thorax, affecting the adrenal glands, posterior mediastinum, retroperitoneum and pelvis. Intraoral involvement of neuroblastic tumours, particularly ganglioneuroma is extremely rare. In this report we present a case of ganglioneuroma located on the lingual aspect of retromolar region of a 15-year old girl.

**PP255****Speciality:** Cancer**Bisphosphonate Induced Jaw Necrosis**Nurgül KÖMERİK, Nedim ÖZER*The Ministry of Health, İstanbul Province Administiry Dental Hospital, İstanbul, TURKEY*

Bisphosphonates are widely used group of drugs world wide for the treatment of many metabolic and malignant bone diseases. In recent years, however, osteonecrosis of the jaw bones as a complication of long term bisphosphonate use has emerged. Zoledronic acid appears as one of the most potent bisphosphonates. Although the pathogenesis of bisphosphonate induced osteonecrosis remains unclear, it is thought that bone necrosis is caused by inhibition of bone turnover and capillary angiogenesis. The treatment protocol for bisphosphonate induced osteonecrosis is conservative which includes antibiotics, antimicrobial mouth washes and surveillance. If possible, cessation of bisphosphonate therapy for at least 6 months is recommended. Surgical treatment i.e. sequestrectomy or debridement of the defect is preserved only for selected cases. We report our experience with five patients in whom osteonecrosis of the jaws occurred while receiving zoledronic acid for malignancies affecting the bone. The medical and dental professions should be aware of the bisphosphonate induced osteonecrosis of the jaws to avoid unnecessary and harmful surgical procedures.

**PP256****Speciality:** Cancer**Malignant Tumors of the Maxilla**Nurgül KÖMERİK, Nedim ÖZER,*The Ministry of Health, İstanbul Province Administiry Dental Hospital, İstanbul, TURKEY*

In this retrospective study, malignant tumors of the maxilla, in patients who were treated at the Oral Maxillofacial Surgery Clinics of Il Ozel Idaresi Dental and Oral Health Hospital between november 2004-april 2008, were reviewed. A total of 25 patients had malignant tumors located in the maxilla. The most common malignant tumor was squamous cell carcinoma (14 patients) which was followed by tumors of the minor salivary glands. Malignant tumors arising in the salivary glands included 3 cases of polymorphic adenocarcinoma, 2 cases of adenoid cystic carcinoma, 2 cases of fusiform cell sarcoma, 1 case of clear cell carcinoma. 1 case of malignant lymphoma was originated from lymphoid tissue located in the minor salivary glands. Rare odontogenic malignant tumors (malignant ameloblastoma and ameloblastic sarcoma) were detected in 2 patients. The latter was found in association with an odontogenic cyst. Clinical characteristics of these malignant tumors located in the maxilla will be presented. Weber Ferguson approach was the preferred surgical technic for the total excision of all cases.

**PP257****Speciality:** Cancer**Vermilion Reconstruction Following Malignant Tumor Excision: A Case Report**Ramazan KÖYMEN, Aydın GÜLSES, Ümit KARAÇAYLI, Yavuz Sinan AYDINTUĞ*G.A.T.A. Dentistry Sciences Center, Dept. of Oral and Maxillofacial Surgery, Ankara, TURKEY*

Microstomia is a term used to describe an abnormal small oral orifice. The condition can be congenital or acquired as a result of trauma, chemical, electrical and thermal burns of perioral tissues and formation of thick hypertrophic perioral scars secondary to reconstructive lip surgeries. The resection of malignant tumors affecting the perioral tissues does not always produce satisfactory aesthetic and functional results and generally requires a secondary reconstructive surgery to maintain adequate mouth opening. Depending on severity and etiologies of the condition, different surgical and non-surgical procedures have been represented by different

authors. We used a version of Converse's technique and modified it with longitudinal releasing incisions to mobilize the buccal mucosal flap. In the postoperative period, we applied semidynamic mouth splits to protect the re-covering mouth gap. The present study describes the vermillion reconstruction of a resected lower lip due to squamous cell carcinoma of a 46-year-old man with using commisuroplasty and buccal mucosal flaps.

## PP258

**Speciality:** Other: Odontogenic Cyst

### **Treatment of Dentigerous Cysts by Decompression and Eruption of Related Teeth Spontaneously: Report of two Cases**

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Dentigerous cysts are always associated with the crown of an impacted, embedded, unerupted or developing tooth. They may also be rarely associated with odontomas, deciduous or supernumerary teeth. Treatment modalities of dentigerous cysts involve enucleation (surgical removal) and/or decompression (marsupialization). Dentigerous cysts are often treated with enucleation of the cyst and removal of the associated teeth. However, large dentigerous cysts as the other large odontogenic cysts can be treated with decompression if surgical removal could increase the risk of damaging adjacent anatomic structures like maxillary sinus, inferior alveolar nerve or vital teeth. This report describes two dentigerous cysts as a result of infection from deciduous teeth associated with second premolars in the mandible. After the extraction of the infected teeth, plastic tube stents were positioned and decompression was achieved. The impacted mandibular second premolars erupted spontaneously without orthodontic therapy and the dentigerous cysts were treated successfully.

## PP259

**Speciality:** Other: Oral Pathology

### **Bisphosphonates - Related Osteochemonecrosis of The Mandible: A Case Report**

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Bisphosphonates-related osteochemonecrosis of the jaws (BROJ) is a new entity in the dental and medical literature

for the last few years. This entity is defined with avascular bone necrosis in the maxilla and/or mandible, who takes bisphosphonates for treatment and prevention of resorptive bone diseases such as osteoporosis, Paget disease, multiple myeloma, malignant hypercalcaemia and metastatic bone cancers from the breast and prostate. The development of BROJ has been associated with dental extraction or trauma in many cases, however there are some cases which spontaneously occur. Treatment modalities include conservative debridement of necrotic bone, interrupt or withdrawal of bisphosphonates, pain and infection control, use of antibiotics and mouth-rinses, hyper-baric oxygen and/or aggressive surgical approaches. In this case report, bisphosphonates-related osteochemonecrosis of the mandible is presented in a multiple myeloma patient, who has been treated with zoledronic acid and clodronate as bisphosphonates and, also management and prevention strategies are discussed.

## PP260

**Speciality:** Implants

### **Mandibular Incisive Canal: A Question Mark for Implant Placement in The Anterior Mandible**

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Preoperative assessment in dental implantology is very important to evaluate the height, thickness, density and status of alveolar bone and to determine the proximity of anatomic structures such as maxillary sinus, inferior alveolar and mental nerve, nasopalatine canal. All these factors effect the stability and survival of the implant and the comfort of the patient. The anterior mandible is generally considered much safe surgical site for dental implant placement, bone grafting procedures and other surgical approaches. However, with the increasing of the number of implant surgery and other procedures, some difficulties have been experienced in the anterior mandible. In this report, implant placement in a patient with incisive canal in the anterior mandible is presented and potential sensory disturbances and/or osseointegration risks are discussed.

**PP261****Speciality:** Other: Orofacial Pain**Glossodynia: A Case Report**Dervişhan KÜÇÜK, Sümeyra YAĞCI,  
Melahat Ögütçen TOLLER*Cumhuriyet University, Faculty of Dentistry, Dept. of Oral and Maxillofacial Surgery, Sivas, Turkey*

Glossodynia, which is defined with burning pain of the tongue often without organic origin, has been associated with numerous local, systemic and/or psychogenic conditions. These conditions are usually trauma, oral candidiasis, xerostomia, nutritional deficiency, burning mouth syndrome (BMS), hormonal changes at menopausal period, diabetes, anemia, oral hygiene deficiency or psychogenic disorders. Glossopyrosis, stomatodynia, glossitis and BMS are used to describe similar symptoms in the literature, such as burning pain in the tongue with the tip and lateral borders of glossal mucosa, pain and discomfort in the lip, palate and other sides of the mouth. Management of glossodynia involves treatment of diagnosed systemic conditions, local causes and psychogenic factors. Recently, investigations point to relationship with oral candidiasis or psychological distress more than the other etiologies in glossodynia. In this report, a 33-year-old woman with glossodynia is reported and treatment modalities and etiologies of the glossodynia are discussed.

**PP2262****Speciality:** Distraction,**Effects of Local and Systemic Alendronate Administrations on Mandibular Distraction Osteogenesis in Rabbit Model**Dervişhan KÜÇÜK, Sinan AY, Cesur GÜMÜŞ,  
Hidayet Burak POLAT, Mustafa Cihat AVUNDUK*Cumhuriyet University, Faculty of Dentistry, Dept. of Oral and Maxillofacial Surgery, Sivas, TURKEY*

This study aims to investigate the effects of bisphosphonate alendronate on early consolidation and mineralization of the callus in mandibular distraction osteogenesis in rabbits. Animals were divided into 3 groups; local alendronate, systemic alendronate and control groups. Unilateral mandibular osteotomies with the same surgical protocol were performed. Alendronate sodium was applied to osteotomy gap by collagen sponge in local alendronate group. In systemic alendronate group, 0,5 mg/kg/day alendronate sodium was administered by oral

gavage from the operation day to the end of distraction period. After the five days latency period, distraction was performed in all rabbits at a rate of 0,8 mm/day for nine days. Forty-two days after the operation all rabbits were sacrificed. It was seen the bone mineral density was increased in local and systemic alendronate groups with the results of radiographic and densitometric investigations. In local and systemic alendronate groups, an increase both in new bone regeneration area and the number of osteoblast cells were shown with the results of histomorphometrical analysis. In addition, the number of osteoclast cells was decreased.

**PP263****Speciality:** Other: Anaesthesia**Comparison of Two Different Classification of Laryngeal View in Maxillofacial Patients with Difficult Intubation**Zuhal KÜÇÜKYAVUZ, Ayşegül M.Tüzüner ÖNCÜL*Ankara University, Faculty of Dentistry, Department of Oral and Maxillofacial Surgery, Ankara, TURKEY*

Prediction of the difficult intubation patients is one of the most challenging points of general anesthesia management in oral and maxillofacial surgery procedures. The aim of this study was to evaluate which predictive test is effective in diagnosis of difficult intubation in patients undergoing oral and maxillofacial surgery. 96 male (group M) and 107 female (group F) oral and maxillofacial surgery patients were enrolled to the study. After anesthesia induction was performed, oral or nasal intubation was achieved in terms of direct laryngoscopy with Macintosh #3 blade by the same senior anesthesiologist. In direct laryngoscopy attempt the view of oropharyngeal structures were assessed both with the original and the modified Cormack-Lehane classification. Patients with difficult intubation were recorded. The sensitivity, specificity, positive and negative predictive values (PPV) of these methods was calculated. Total number of 203 patients was enrolled to the study. Grade I view predicted easy intubation with sensitivity of 96.2%, specificity of 46% and PPV of 21.4%. When grade I and II were combined, easy intubation was predicted with sensitivity of 96.2%, specificity of 78.9% and PPV of 41.2%. Easy laryngeal view predicted easy intubation with sensitivity of 96.2%, specificity of 78.9% and PPV of 41.9%. This study has failed to demonstrate, the new classification of laryngeal structures is better than Cormack –Lehane's classification for predicting difficult intubation.

**PP264****Speciality:** Biomaterials,**Evaluate the Effects of Different Suture Materials on Wound Healing**Mehtap MUĞLALI, Nergiz YILMAZ, Samet İNAL, Tolga GÜVENÇ*Ondokuzmayıs University, Faculty of Dentistry, Department of Oral and Maxillofacial Surgery, Samsun, Turkey***Introduction:** The aim of this experimental study is to evaluate the effects of different suture materials on wound healing in oral mucosa and to assess IL-1 $\beta$  and TNF- $\alpha$  markers immunohistochemically.**Method:** The animals were anesthetized with intraperitoneal injection of ketamine (90 mg/kg body weight). Straight incisions were made to the buccal mucosas of the animals. Animals were randomly assigned to five groups. Five different suture materials were used in to close the incision wounds: Silk (Carelife, Ces), plain catgut (Boz, Vomel), monocryl (polyglcaprone 25) (Ethicon, Johnson & Johnson Intl), vicryl rapide (polyglactin 910) (Ethicon, Johnson & Johnson Intl) and indermil (N-Butyl-2-Cyanoacrylate) (Tyco, Loctite). The wounds were closed primarily. The excisional biopsies were performed on the 2., 7., 14., 21st day and the tissue samples were examined histopathologically and immunohistochemically.**Results:** On the 21st day, TNF- $\alpha$  and IL-1 $\beta$  levels were high in the indermil group; moderate in plain catgut, vicryl rapide and silk groups and insignificant levels in the monocryl group.**Conclusion:** It was concluded that monocryl is the most advantageous suture material for the soft tissue healing.**PP265****Speciality:** Other: Oral Surgery**Use of a New Hemostatic Agent in Tooth Extractions: Report of Three Cases**Mehtap MUĞLALI, Nükhet ÇELEBI, Mehmet TURGUT*Ondokuzmayıs University, Faculty of Dentistry, Dept. of Oral and Maxillofacial Surgery, Samsun, TURKEY*

Dental extraction in hemophiliacs and anticoagulated patients is associated with a high risk of bleeding. Excessive bleeding is not only distressing, but also hinders the completion of the procedure (e.g. suture insertion). It can compromise wound healing, increase

the risk of infection and prolong the hospital length of stay. Furthermore, cessation of oral anticoagulant therapy before, during or after oral surgery carries the risk of a thrombotic event. Therefore, a multidisciplinary approach is required. In this report of three cases, we presented the use of a new haemostatic agent (medicinal plant extract) in the haemostatic management for tooth extractions in three patients with bleeding disorders: two maintained on oral anticoagulant therapy and one with haemophilia. The same haemostasis protocol was used for all patients. The photographs of the extraction wounds were taken intra and postoperatively. None of the patients showed post-extraction bleeding nor needed additional measures. This new haemostatic agent seems to be effective for providing postoperative haemostasis in the patients with bleeding disorders, and is promising not to interrupt the anticoagulant medication for dental extractions in the patients on oral anticoagulant therapy.

**PP266****Speciality:** Other: Salivary Glands Tumors**Epidemiologic Evaluation of benign Salivary gland Tumors in a group of Iranian Patients**Reza NOORI, Masood NOORI, Bijan MOVAHEDIAN,*Shiraz University of Medical Sciences, Department of Maxillofacial Surgery, Shiraz, IRAN***Statement of Problem:** According to geographic and racial difference about benign salivary gland tumors, Epidemiologic Evaluation of These Tumors in each Population Seems to be an important issue to facilitate the differential diagnosis.**Purpose:** This Study was performed to determine the epidemiologic Pattern of the benign salivary gland tumors in a group of Iranian Patient, in order to Province a suitable reference for clinical use and future studies.**Materials and Method:** In this study patient's files with benign salivary gland tumors were study in a retrospective way and simple random sample method was used.**Result:** The most important result of this study were:

- 1 - The most common type of benign salivary gland tumors, orderly are Pleomorphic adenoma and the least one are refer to oncocytoma and hemangioma.
- 2 - Among the investigated ages, the highest possibility of benign tumors of salivary gland was found to be the age 31-50.

**3 - Male patients are more than female patient**

**Conclusion:** Determination of the epidemiologic pattern of benign salivary gland tumors is useful in clinical diagnosis and comprehensive treatment plan.

**Key words:** Epidemiology-Benign salivary gland tumors.

**PP267**

**Speciality:** Distraction,

**An Alternative Method to Reposition the Dislocated Transported Segment During Vertical Alveolar Distraction**

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An Alternative Method To Reposition The Dislocated Transport Segment During Vertical Alveolar Distraction  
Abstract Alveolar distraction is a relatively novel procedure by which alveolar bone and underlying mucosa are regenerated. This technique offers some advantages over other tissue augmentation treatments. However, it also presents a number of possible complications. In this case report, during alveolar distraction procedure, transport segment was inclined palatally and it was repositioned with an alternative method. An orthodontic expansion screw was inserted into the interim removable partial denture which was made only for esthetic demands and it behaved like a second distraction rod. Also sinus lifting was performed with alveolar distraction to extended the transport segment size as possible as to posterior. **Keywords:** Alveolar distraction osteogenesis, dental implant, atrophic maxilla, dislocated transport segment, palatal tilting.

**PP268**

**Speciality:** Other: Oral Pathology

**Cemento - Ossifying Fibroma of the Mandible: A Case Report**

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Cemento-ossifying fibromas (COF) are benign lesions affecting the jaws and other craniofacial bones. They commonly occur in adults between the third and fourth decade of life. Radiographically, they appear as well-

defined unilocular or multilocular intraosseous masses, commonly in the premolar/molar region of the mandible. The lesion is invariably encapsulated and of mixed radiolucent densities. The tumour may grow quite extensively, thus the term aggressive is some times applied. Their clinical, radiographical and histopathological features and those of fibro-osseous lesions are overlapping and may cause confusion in classification, diagnosis, and treatment. The histopathology is composed of fibrous tissues with calcified structures resembling bone or cementum. Surgical enucleation or resection is the treatment of choice. They are insensitive to radiotherapy and recurrences are uncommon. We present a case of COF arising in 55 years-old male patient. In routine radiographical examination, a well-defined unilocular lesion with smooth radioopaque outline was determined around the apex of mandibular right first molar. Clinically, there was no expansion of the buccal and lingual plate; the overlying oral mucosa was intact and normal in appearance, and the patient has no complaints, neither a tenderness nor paraesthesia. After the patient was informed about the possible lesions with the same radiological appearance which could have malign potential, the tooth was extracted and the lesion was curetted carefully. The biopsy specimen taken, indicated the lesion to be a cemento-ossifying fibroma. The clinical, radiographical, and histopathological features of the case are discussed in this case report.

**PP269**

**Speciality:** Other: Oral Surgery

**Is Endodontic Treatment Necessary in Coronectomy Procedure?**

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Kerim ORTAKOĞLU, Yavuz Sinan AYDINTUĞ,  
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Damage to the inferior alveolar nerve during extraction of lower third molars is often caused by the close relationship between the nerve and the roots of the third molars. The mean of close relationship is described as perforation of the third molar roots or proximity of the inferior alveolar nerve to the third molar roots. These kinds of situations are uncommon and can be difficult to determine by conventional radiographic methods. For this reason to detect the relationship of the nerve and roots, computerized tomography can be used. In this retrospective study the technique of coronectomy was used

to protect the nerve from the damage. 10 patients underwent coronectomy on 16 lower third molars. On 8 of these patients the coronectomy was performed, on 8 of them coronectomy and root treatment were performed. All patients were followed at least one year. And all patients were radiographed preoperatively and postoperatively. There were no inferior alveolar nerve damage on coronectomy group. Furthermore no infection was determined on coronectomy sites in this group. But we had to extract seven of the roots in eight patients belonging to other group which were applied coronectomy and root treatment because of the infection. Moreover there were three inferior alveolar nerve damage because of the extraction in second group. Coronectomy appears to be a reliable technique to protect the nerve from the damage. This procedure has a low incidence of complications. Endodontic treatment doesn't affect the success of this method according to our results.

## PP270

**Speciality:** Other: Oral Pathology

### The Central Osteoma Associated with Root Resorption: A Case Report

Bora ÖZAN, Emel BULUT, Ömer GÜNHAN

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Osteomas are benign tumours composed of cancellous or compact mature bone. Main etiology is traumatic injuries or inflammatory processes. In other cases are of unknown etiology or even associated with syndromes like Gardner's syndrome. It can be central, peripheral, or of an extraskeletal type. The central osteoma arises from the endosteum, the peripheral osteoma from the periosteum, and the extraskeletal soft tissue osteoma usually develops within a muscle. The mandible is more frequently involved; the most common sites are the lingual aspect of the body, the angle and the inferior border of the mandible. The differential diagnosis should include osteochondroma, fibrous dysplasia, chondroma, ossifying fibroma, condensing osteitis, tori and exostoses. This case represents a case of the central osteoma associated with partially root resorption of the mandibular first molar.

## PP271

**Speciality:** Other: Pathology

### Cleido - Cranial Dysplasia: A Case of Multiple Supernumerary and Impacted Teeth

Semra Kayaaltı ÖZARSLAN, Müge Çina AKSOY, Mehmet SARIOĞLU, Ayşe İlknur KARADUMAN, Orçun TOPTAŞ, M.Hakan TÜRKKAHRAMAN, Timuçin BAYKUL

*Süleyman Demirel University, Faculty of Dentistry, Dept. of Oral and Maxillofacial Surgery, Isparta, TURKEY*

**Introduction:** Cleido-cranial dysplasia (CCD) is a rare syndrome, characterized by several cranial malformations and underdevelopment, partial or complete absence of the clavicles, multiple supernumerary and impacted permanent teeth, retention of the deciduous teeth, and delayed closure of the sagittal fontanelles. A case of two brothers with this syndrome will be presented.

**Case Report:** Two patients diagnosed with CCD in the same family referred to our clinic. The clinical and radiological examination revealed multiple impacted permanent and supernumerary teeth.

**Discussion:** Patients with CCD require a team approach with good communication and cooperation from the patient. Timing of the intervention is critical and many surgeries might be required.

## PP272

**Speciality:** Other: Oral Pathology

### A Benign Fibroosseous Lesion: Case Report

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**Introduction:** Fibroosseous lesions of the cranial and facial bones are usually benign and tend to grow slowly. If not totally excised, recurrence is common in these locally destructive and deforming lesions. Predilection sites are maxillae and mandibles. They are often seen in children and young adults. A fibroosseous lesion in the mandible will be presented.

**Case Report:** A 17 years old female patient has come to our clinic with swelling at her right premolar mandibular region. Pain, limited mouth opening were the other symptoms. After radiological examination with panoramic radiograph and CT, the lesion was seen ex-

pansive and a resorption was detected around the lesion in the CT. Under local anesthesia, the lesion was excised by enucleation and curettage. After histopathological examination the diagnosis was confirmed as benign fibrous lesion. The patient is under our follow-up.

**Results:** Fibrous lesions of the jaws may show similar radiological findings with the other radiolucent lesions especially at the early stages. Histopathological diagnosis, clinical and radiological findings should be considered together in order to reach the final diagnosis as histopathological appearance may be similar in these kinds of lesions.

### PP273

**Speciality:** Other: Oral Pathology

#### Lingual Mandibular Bone Sequestration: A Case Report

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Abstract Lingual mucosal ulceration with bone sequestration may be influenced by some local and systemic factors. These etiologic factors may disrupt the blood supply of bone and lead to mucosal ulceration with bone sequestration. Thermal traumatic effect of a thermoplastic impression material may induce adverse tissue reaction such as ulceration or bone sequestration. This report describes the presentation of oral ulceration associated with bone sequestration overlying the mylohyoid ridge of the mandible followed by the use of a thermoplastic border molding material.

### PP274

**Speciality:** Implants

#### Peripheral Giant Cell Granuloma Associated with Dental Implants: A Rare Case Report

Feyza Otan ÖZDEN, Bora ÖZDEN, Murat KURT, Kaan GÜNDÜZ, Ömer GÜNHAN

*Ondokuzmayıs University, Faculty of Dentistry, Dept. of Periodontology, Samsun, TURKEY*

The peripheral giant cell granuloma is a benign reactive exophytic lesion of unknown etiology occurring on the gingiva and alveolar ridge. Different local causal factors, including poor dental restorations, food impaction, complicated dental extractions, ill-fitting dentures, plaque, and calculus have been associated with the lesion. Al-

though peripheral giant cell granuloma is the most common giant cell lesion of the jaws, it is rarely seen in association with implants. This report discusses the management and etiology of a 60-year-old female who developed a peripheral giant cell granuloma follow up 6 years implant insertion. Intraoral examination revealed a 2.0x1.5cm lesion with a nonulcerated smooth-surfaced, maroon-colored nodule involving the attached gingiva around the implants. The lesion was excised and area of the bone resorption was curettaged without removing the implants. The new implant-supported prosthesis with adequate marginal adaptation between implant restoration and abutments was re-made. There were no complications during one year of clinical and radiological follow up.

### PP275

**Speciality:** Cancer,

#### Large Cemento-Ossifying Fibroma of the Mandible: A Case Report

Özkan ÖZGÜL, Yasemin KARTAL, Doruk KOCYİĞİT, Mehmet ATIL, Reha KIŞNIŞCI, Kaan ORHAN

*Ankara University, Faculty of Dentistry, Department of Oral and Maxillofacial Surgery, Ankara, TURKEY*

Cemento-ossifying fibroma is a mesodermal, slow-growing, benign fibro-osseous lesion of the jaws. It is not easy to diagnose because its clinical, radiographic, and histologic criteria often overlaps with other fibro-osseous lesions. They form a part of the spectrum of fibro-osseous lesions of the jaws and are considered benign but locally aggressive tumors. This report presents a 45-year-old female patient with a large cemento-ossifying fibroma of the mandible. The clinical, radiographic and histological features as well as surgical findings are presented. The treatment of choice of this lesion is also emphasized. Three years after surgery, there was no evidence of recurrence.



**PP276****Speciality:** Temporomandibular Joint,**Ultrasonographic Evaluation of Disc Displacement of the Temporomandibular Joint Compared with MRI**

Nilüfer Çakır ÖZKAN, Başar SARIKAYA, Ünal ERKORKMAZ, Yeliz AKTÜRK

*Gaziosmanpaşa University, Faculty of Medicine, Oral and Maxillofacial Surgery Clinic, Tokat, TURKEY***Abstract Purpose:** In this study, we assessed lateral and anterior capsule-condyle distances to assess their correlation with internal disc derangement in patients with and without disc displacement by using US and MRI.**Methods:** Twenty eight patients (19 female, 9 male; aged between 16 and 51 years, average age; 32.82) were included in this study and totally 56 joints were assessed with US and MRI. Measurements have been obtained for anterior capsule-condyle and lateral capsule-condyle distances both in open and closed-mouth position with US. ROC curve analysis was performed to assess the results of study.**Results:** Diagnostic accuracy of ultrasonographic anterior capsule-condyle distance in closed-mouth position to detect MRI positive disc displacement ( AUC= 0.689 (p=0.015)).**Conclusions:** Analysis of ROC curve seems to reveal that the cut-off value is  $\leq 1$ , which is considered the threshold to discriminate between TMJs with and without MRI positive disc displacement.**PP277****Speciality:** Reconstruction,**A Giant Odontogenic Keratocyst: Surgical Treatment and Reconstruction with Autologous Fat Graft: A Case Report**Nilüfer Çakır-ÖZKAN, Ahmet EYİBİLEN, İbrahim ALADAĞ, Başar SARIKAYA, Doğan KÖSEÖĞLU  
*Gaziosmanpaşa University, Faculty of Medicine, Oral and Maxillofacial Surgery Clinic, Tokat, TURKEY***Purpose:** Odontogenic keratocyst (OKC) is a common developmental odontogenic cyst in the jaws. They are usually seen in between 10 and 40 years old. Mandible is more affected than maxilla. It is locally aggressive behaviour and has high recurrence rate. Radiographically, OKC form rounded, unilocular or multilocular, cyst-like radiolucent areas with well defined margins. In this

paper, a case of a large OKC and reconstruction with autologous fat graft are reported.

**Case Report:** A 73-year old woman was referred to our clinic with a complaint of right preauricular swelling and pain. Clinically, the right preauricular region and ramus of the mandible was swollen and it was tender on palpation. Radiographic examination showed large cystic lesion that involved right side of the mandibular ramus and extend from the right mandibular molar area to the subcondylar region. Considering the general status of the patient and the size of the defect an autologous fat graft was planned. The cyst was enucleated and the diagnosis was made histopathologically.**Conclusion:** In our case the large bone defect was filled with autologous fat graft from the abdomen, resulted in successful reconstruction of the cavity.**PP278****Speciality:** Cancer,**Pleomorphic Adenoma of the Palate: A Case Report**

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Pleomorphic adenoma is the most common neoplasm originating from the salivary glands. The majority of these tumours arise within the parotid gland (75-85%). It occurs less commonly in the submandibular and the minor salivary glands. The palate is the most common occurring site (60-65%) for the minor glands. Besides, the upper / lower lips, buccal mucosa, gingiva and tongue are the other regions of occurrence. The pleomorphic adenoma is a slow growing and a well demarcated tumour which contains mucoid, chondroid, osseous, and myxoid elements. Although malignant transformation is relatively uncommon, it is well described. The pleomorphic adenoma is usually diagnosed on physical examination and image studies such as CT scans or fine-needle aspiration. It is typically seen in middle aged women and presented as a painless slowly growing mass in the hard palate. A 50-year-old woman admitted to our department with a history of painless swelling in the left hard and soft palate lasting for 2 months (or possibly longer). Clinical examination revealed a tender, slightly fluctuant swelling in the left hard and soft palate. The tumour was excised along with its fibrous capsule under local anesthesia.

**Key words:** Pleomorphic adenoma, parotid gland, minor salivary gland, fine-needle aspiration.

**PP279****Speciality:** Implants**New Generation Technique in Transferring Planings for Dental - Implant Applications Made by Numeric Digital Images to Models**Muhlis POLAT*Ankara, TURKEY*

During dental implant applications, in lots of complex cases, clinicians use surgical guides supported by computerized tomography that based on fast prototyping and 3D designing softwares to assign safe anatomical limits, right angle and axes, appropriate distance between two implants or between implant and teeth. This article defines; a new surgical guide arranging technique that establishing a closer connection between planing and clinical executions instead of surgical guides made with conventional techniques. This technique is a new surgical guide arranging system that helps to transfer dental implant planings based on jaws's 3D digital images to a stone jaw model, using a fast prototyping technique. The aim of the developing this new thechique is, to make a fast, effective and secure contact; transferring digital information in conventional technique to a stone model, with different shape and rank; just like prototyping between numeric digital images and clinic. In this article; planing, transference to stone model and arranging surgical guide with new technique and clinical useage will explained.

**PP280****Speciality:** Cancer**Follicular Dendritic Cell Sarcoma Arising from Mandible Bone: First Case Report, Diagnosis and Treatment Exploration**Xi QING, Bu RONG-FA, Liang LI-MIN, Jin SHAN-SHAN*The PLA Hospital, Department of Oral Maxillofacial Surgery, Beijing, CHINA*

**Purpose:** To study the diagnosis and the treatment of the FDSC arising from the mandible bone.

**Methods:** By inquiring and physical examination, X-Ray, CT scanning, immunohistochemical findings and reviewing literatures, one case arise from the mandible bone is reported.

**Results:** The diagnosis of the FDSC in mandible bone is definded. The treatment program of this case is offered and used in therapy.

**Conclusions:** FDSC is a rare hematologic tumor derived from follicular dendritic cell. We report the first case presented on jaws. The clinic feature is the numbness of lower lip and toothache. The X-ray performance is irregular bone absorption but no dental root resorption. Immunohistochemical feature enhances its sensitivity of the tumor which demonstrated CD21(+), CD35(+), CD1a(-), SMA(-), EBV(-) etc. Surgery appears to be clear for operable tumors and adjuvant chemotherapy or radiotherapy should be considered for this tumor.

**Keywords:** Organization cell tumor; Follicular dendritic cell sarcoma; Jaw bones malignant tumor; diagnosis and treatment

**PP281****Speciality:** Trauma, Biomaterials,**Evaluation on Effect of Platelet Rich in Growth Factors (PRGF) on the Closed Mandibular Fracture Healing in Rats: A Histological Study**Shahrokh RAEESEAN, I. RASHIDI, N. YAZDANI, S. MOTTALEBI*Jondishapour Medical Sciences University, Faculty of Dentistry, Ahvaz, IRAN*

**Introduction:** Fracture healing is influenced by numerous hormones, growth factors and cytokines. Local application of growth factors, are known to stimulate bone regeneration. Platelet-rich in growth factor is an aoutologous source of various growth factors that is obtained by concentrating freshly drawn venous blood.

**Purpose:** The aim of this study was to examine the effect of platelet-rich in growth factors (PRGF) on bone healing in the closed mandibular fracture in rat.

**Materials and Methods:** Fourty female wister rats aged 12 weeks and weighing 250-280 gr were used in this study. A closed simple fracture was created in the left body of mandible using two bending clamps. In the test group, PRGF was injected to the fracture site and the healing process was evaluated in histological view.

**Results:** There was no significant difference between the test and control groups in 1st (P=1.000) and 2nd (P=0.072) weeks. In the 3rd (P=0.007) and 4th (P=0.014) week the test group revealed a significantly higher bone regeneration.

**Conclusion:** PRGF is easy to obtain and safe for using in close fracture healing.

**Keywords:** Platelet rich in growth factors, Mandibular fracture, Bone healing.

**PP282****Speciality:** Biomaterials**Bone Healing Induced by two Different Beta-calcium Phosphate Based Materials: An Experimental Histo-pathological Study**Maha M. SALLAM, Samia M. EL-AZAB

Cairo, EGYPT

**Purpose:** The goal of all treatment methods for bone regeneration is to obtain a material with osteogenic, osteoconductive and osteoinductive properties. The limited availability of autologous tissue and the inherent risks of human and animal-based materials have lead to the increased use of synthetic materials. One of the last category is Cerasorb (beta-tricalcium phosphate). Recently, a new synthetic bone substitute named Bonit matrix was introduced, consisting of a mixture of two calcium phosphate hydroxy-apatite and one beta-tricalcium phosphate. Although, clinical trial was conducted to evaluate the difference between the two materials, no experimental study was carried out to monitor bone healing and rate of graft resorption. Consequently, the aim was to compare, at a cellular level, the two graft materials experimentally.

**Materials and Methods:** Toward this aim, 12 adult Ginapigs were investigated. Standardized bone defects were induced in the inferior border of the mandible. In 6 animals, the bone defects were filled with Cerasorb particles. While in the other 6 animals, Bonit matrix was utilized. One Ginapig from each group was sacrificed after 1, 2, 3, 4, 5 and 6 weeks postoperative. The areas of surgical defect were histochemically investigated using Masson's trichrome.

**Results:** Results revealed enhanced bone regeneration with wound stabilization and increased rate of resorption for Bonit in the first stages of healing. Meanwhile, in the final stages equal rate of bone remodeling was exhibited.

**Conclusion:** Although, the healing progression was nearly the same, the nanoparticles of Bonit add the benefits of increased its rate of degradation and stabilization within the surgical defect.

**PP283****Speciality:** Temporomandibular Joint,**Therapeutic Effect of High Molecular Weight Hyaluronic Acid Injection on TMJ Osteoarthritis**Demet SARIALTIN, Nurhan GÜLER, Koray ORAL, Gonca DUYGU*Yeditepe University, Faculty of Dentistry, İstanbul, TURKEY*

The objective of this study was to determine the efficacy of intra-articular injection of high molecular weight hyaluronic acid in patients with temporomandibular joints (TMJ) osteoarthritis. This study involved 20 joints with osteoarthritis in 18 female patients (mean age  $33.72 \pm 14.23$  years) complaint of pain and limited mouth opening and did not respond to conservative treatment. Each joint was underwent a cycle of 3 injections (1 per week) of 2 mL Hylan G-F 20. Pain was evaluated using a visual analog scale (VAS). Maximal mouth opening (MMO), lateral jaw movements, sounds in the TMJs was recorded prior to procedure, and at 1 week, 3 and 6 months postoperatively. Disc positions and the degenerative bony changes on each joint were diagnosed by MRI. The mean preinjection MMO was  $32.94 \pm 5.38$ mm (ranging 26 to 47) while it was  $34.14 \pm 3.75$ mm (ranging 29 to 42) in 3 months and  $37.85 \pm 1.95$ mm (ranging 35 to 40) in 6 months. There was a significant difference between the preinjection MMO, 3 and 6 months follow-up ( $p < 0.001$ ). The lateral and protrusive movements increased significantly at 3 months follow. TMJ sounds were determined on 17 (%85 joints). 11 joints had clicking, of the remaining 6 (%35) joints showed crepitation. Based on VAS, the mean preinjection, 3 and 6 months were  $5.94 \pm 2.38$ ,  $1.71 \pm 1.20$  and  $0.71 \pm 0.75$  respectively. The reduction of pain were statistically significant ( $p < 0.0001$ ). It was concluded that the intraarticular injection of high molecular weight hyaluronic acid clearly reduced to pain and increased mandibular range of motion at 3 month follow-up.

**PP284****Speciality:** Other: Oral Pathology**Subacute Necrotizing Sialoadenitis**Ersin Hüseyin SELÇUK, Gonca DUYGU, Kemal ŞENÇİFT, Nil ÇOMUNOĞLU*Yeditepe University, Faculty of Dentistry, İstanbul, TURKEY*

Subacute necrotizing sialadenitis is a self-limiting disorder that is affecting mainly the minor salivary glands. It is

most commonly found on the hard palate, but has been reported in all areas where the salivary gland tissues are located. The etiology is thought to be an insufficient blood supply arising from a long list of secondary causes. Its clinical and histologic feature resembles malignancy. The disease usually presents as a unilateral, erythematous, nonulcerated swelling, often painful, of the posterior hard palate (rarely the soft palate) that heals in a few days or weeks. The clinical, histological findings and differential diagnosis of necrotizing sialometeplasia in a 43 year-old female, who was referred for a slightly painful bilateral symmetric swelling of the hard palate, will be presented.

## PP285

**Speciality:** Cancer

### **Chondrosarcoma of the Maxilla: A Case Report**

Bahar SEZER, Banu Özveri KOYUNCU, Cemal AKAY, Başak DOĞANAVŞARGİL

*Ege University, Faculty of Dentistry, Dept. of Oral and Maxillofacial Surgery, İzmir, TURKEY*

Chondrosarcomas rarely affect the maxillofacial regions. These malignant mesenchymal tumors, when seen in the maxillofacial region, usually arise from the maxilla, although a few arise from the mandible. Usually there is a painless mass or swelling associated with loose teeth. In this poster presentation, a patient with chondrosarcoma of the anterior maxillary region was reported. Among the entities to be included in the differential diagnosis are cemento-osseous dysplasia, central giant-cell granuloma, cemento-osseous fibroma, odontogenic cysts such as radicular or odontogenic keratocysts, odontogenic tumors, and other nonodontogenic lesions. The radiologic findings are similar in such painful lesions as osteomyelitis, periapical lesions, osteosarcoma, and Langerhans' cell disease. Clinical manifestations and radiographic and pathologic findings, as well as the differential diagnosis of this rare tumor, are discussed.

## PP286

**Speciality:** Biomaterials

### **Evaluation of HECBMG (Human Endochondral Bone Matrix Gelatin) Cytotoxicity on the Human Peripheral WBC Mononuclear Cells**

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*Shahed University, Tehran, IRAN*

**Introduction:** One of the problems in front of the den-

tists and maxillofacial surgery is bone defect. There are several ways to solve this problem, those include use of auto graft, xenograft and polymers. HECBMG is a new biomaterial that was created for the first time in Iran.

**Aim:** Purpose of this research is evaluation of toxicity of human peripheral blood mononuclear cells

**Methods and Materials:** After preparation of HECBMG the screening (HIV, HBV...) of our products are the second steps of the preparation was done, and then we can do sterilization and cultured in blood agar medium to make sure it is free of any pathogenic agent. For measuring the cell toxicity of the material, MTT method was utilized. Measuring the photo absorption was done by ELISA READER system, which assigned the vitality of cell by the value of MTT absorption cells.

**Results:** None of the doses that we used were not toxic, but it causes the increasing of the growth of the human peripheral blood mononuclear cells.

**Discussion and Conclusion:** With increasing of HECBMG weight's material and passing time, increasing of human peripheral blood mononuclear cells can be observed and it has a statistically large differentiation with the group's control. Therefore as a conclusion we can adjudicate that "HECBMG" biomaterial is the material which is very compatible with the human blood mononuclear cells.

**Key Words:** HECBMG - human peripheral blood mononuclear cells - cytotoxicity

## PP287

**Speciality:** Implants, Distraction

### **Alveolar Crest Widening by Distraction Osteogenesis: A Case Report**

Timur SONGÜR, Utku DEDE, Ayşegül M. Tüzüner ÖNCÜL, Reha S. KİŞİNiŞÇİ

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Narrow alveolar ridges remain a serious challenge for successful placement of dental implants. Horizontal alveolar distraction for implant placement was performed on a patient with an extremely atrophic alveolar ridge of 3mm in the posterior mandibular region. The horizontal distraction device was placed after the sagittal osteotomy with the minimal periosteal reflection. After 7 days of latency period distraction was proceeded for 10 days at a rate of 0.4mm/day. Dental im-

plants were placed on the postconsolidation 40th day immediately after the removal of the distraction device. Distraction areas were completely filled with newly formed solid bone. The implant supported fixed prosthesis were inserted uneventfully with out any marginal bone resorption. In this presentation the advantages and disadvantages of horizontal distraction over traditional augmentation techniques are exposed.

## PP288

**Speciality:** Other: Tumors

### Delayed Eruption of a Maxillary Primary Lateral Associated with Compound Odontoma: A Case Report

Koray Onur ŞANAL, Bora ÖZAN, Bora ÖZDEN,  
Kaan GÜNDÜZ, Burcu BAŞ

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Odontomas are very well differentiated benign mixed odontogenic tumours which receive their origin from epithelial and mesenchymal cells and they rarely occur solely in the primary dentition. They are classified as two major groups; complex and compound odontomas. They could be associated with unerupted teeth, odontogenic cysts and tumours. The etiology of odontomas are unknown, however local trauma, infection, inheritance and genetic mutation have been postulated as possible factors. This case report presents a four years old girl with a compound odontoma located in the maxilla, which caused the impaction of primary lateral tooth.

## PP289

**Speciality:** Other: Local Anesthesia

### Crestal Anesthesia; An Efficient Fast and Reliable Technique in Posterior Mandibular Exodontia

Korosh Taheri TALESH

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**Background:** Performing an efficient and safe anesthesia is a basic principle in nearly all of the dental procedures. At the posterior site of mandible, current infiltration techniques, as in the upper jaw, are not applicable because of dense cortical bone of mandible; so dentists necessarily use inferior alveolar nerve block (IANB) which has many potential side effects like; trismus, temporary paralysis of facial nerve and In this study the crestal anesthesia (CA) was assessed both clinically and by CT scan for its

efficacy and side effects.

**Method:** A combination of an opaque material [Ultrasound R] and lidocaine 2% was used to study the route of anesthetic solution. A combination of these materials was injected to volunteers to assess efficacy and diffusion route. A total of 69 patients (37 female, 32 male) with matched bilateral posterior teeth in mandible were selected randomly and an IANB and CA was performed randomly and separately in different sessions for the contra lateral teeth. The onset anesthesia, anesthesia duration, pain, blood pressure and pulse rate, bleeding quantity and consumed anesthetic solution was recorded for each technique and data were analyzed using paired t-test with SPSS 10.0 for Windows.

**Results:** CA had a significant advantage over the IANB in pain, onset of anesthesia, bleeding quantity, pulse rate and the consumed anesthetic solution ( $p < 0.05$ ).

**Conclusion:** CA could be considered as a reliable and safe primary injection for mandibular exodontias.

## PP290

**Speciality:** Other: Oral Pathology

### Rapidly Growing Pregnancy Tumor: Report of a Case

Tuba TELCİOĞLU, A. Pınar SÜMER, Mahmut SÜMER

*Ondokuzmayıs University, Faculty of Dentistry, Dept. of Oral and Maxillofacial Surgery, Samsun, TURKEY*

Pregnancy tumor is a benign tumor like growth that occurs in pregnant women. It usually appears as a red or reddish purple lesion on the anterior maxillary gingiva that bleeds easily. The pregnancy tumor is histologically similar to a pyogenic granuloma but it is a distinct lesion on the basis of etiology, biologic behavior, and treatment protocol. During pregnancy estrogen and progesterone levels rise, which create an enhanced tissue response to chronic low-grade irritation (plaque, calculus, irregular dental restorations) in the oral cavity. This report presents a case of a rapidly growing pregnancy tumor in a 27-year-old female in the third trimester of pregnancy. She referred to our clinic with a swelling on the left anterior mandible. Intraoral examination revealed a gingival enlargement on the lingual aspect of the mandibular left side, between the left lateral incisor and the first premolar. The lesion was clinically diagnosed as a pregnancy tumor. As it did not pose any significant clinical problems, no surgical removal of the lesion was performed. 17 days after the first examination, the patient presented with a large reddish purple mass on the lingual side of the

mandible included the floor of the mouth. On intraoral examination, it was observed that the pregnancy tumor enlarged rapidly, and decided to remove it surgically. Histopathologic examination confirmed our clinical diagnosis. This case suggests that the pregnant women with a history of pregnancy tumor require special attention for possible enlargement of this lesion.

## PP291

**Speciality:** Other: Face Implants

### Osseointegrated Orbital Prosthesis: A Case Report

Ebru Demet TUNCER, Meltem Özdemir KARATAŞ,  
Sabri Cemil İŞLER, Bilge Gökçen RÖHLIG

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Malignant tumors of the eye occasionally require surgical resection procedures including eyeball, eyelids and surrounding tissues. The prosthesis required to restore this kind of a defect unfortunately becomes large and heavy and mechanical retention lacks to hold the prosthesis in the orbital cavity. Although facial prosthetic techniques rapidly improved aesthetic results, their retention was by far the most important unsolved problem. In these occasions craniofacial implants offer clinically appreciable benefits in orbital prosthetic rehabilitation. Bone anchorage provides effective stability and retention for the facial prosthesis, therefore implant supported facial prosthesis undoubtedly improve the quality of life of the patients. Wearing effect of the adhesives on the edges of the prosthesis shortens the life span of the prosthesis; also the possible allergic reactions restrict the use of skin adhesives. This presentation describes the fabrication procedure of an implant supported orbital prosthesis of a 51 years old female patient who received radiotherapy following orbital exenteration. The retention of the prosthesis was provided with three extraoral implants (ITI -Institut Straumann, Waldenburg, Switzerland, Ø3.3mm/5.0mm). Magnetic abutments were preferred for the suprastructure of the implants. An aesthetic and acceptable result was obtained with Cosmesil M 511 maxillo-facial silicone material.

## PP292

### Oral Findings of Kartagener's Syndrome: A Case Report

Kıvanç TÜRKÖĞLU, Kaan ORHAN, Gizem ÇELEBİOĞLU

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Kartagener syndrome (KS), an autosomal recessively in-

herited disease, is characterized by the triad of situs inversus, bronchiectasis and sinusitis. This disorder affects the activity of proteins important to the movement of cilia, especially in the respiratory tract and the spermatozoa, developing a series of systemic alterations, which can be diagnosed through radiographic examination. The aim of this paper is to describe a clinical case of this unusual pathology in a 15-year old male boy, including a brief literature review, emphasizing the radiographic aspects of this pathology and dental abnormalities with stressing the importance of early diagnosis.

## PP293

**Speciality:** Implants

### Split Crest Osteotomy Technique Severely Narrow Crest: A Case Report.

Onur UZUN, Gühan DERGIN, Gökhan GÜRLER,  
Bahar GÜRSOY

*Marmara University, Faculty of Dentistry, Istanbul, TURKEY*

This report details surgical procedures for ridge expansion by means of splitting the crest of an partial edentulous ridge. Implant rehabilitation of the partial edentulous mandibula may be somewhat problematic because of anatomic situations involving insufficient horizontal bone thickness. One approach in this situation is localized ridge augmentation with the split crest technique. This surgical approach allows the external cortical plate of the mandibula to be moved in a labial direction to gain an increase in width to introduce implants of appropriate diameter. A case is described of severe mandibular alveolar atrophy with immediate implant placement associated with a ridgewidening technique in accordance with a split-crest-bone manipulation. Taper-shaped implants were applied in this technique without a barrier membrane.

## PP294

**Speciality:** Cancer

### Chondrosarcoma of the Maxilla. A Case Report and Literature Review

Cem ÜNGÖR, Anıl GÜVEN, Hakan EREN, Hasan ALP,  
Onur İÇTEN

*Ankara University, Faculty of Dentistry, Ankara, TURKEY*

Chondrosarcoma is a bone tumor that usually arises in

peripheral long and flat bones and has a high propensity for local recurrence. Occasionally a chondrosarcoma undergoes dedifferentiation and then assumes a very aggressive course. It is important to recognize dedifferentiation early, since it can be an indicator for more aggressive treatment of the tumor. These lesions have a poor overall prognosis but it is prudent to perform a wide excision with clear margins. The role of adjuvant chemotherapy and radiotherapy is unclear in these cases. In this significant case report, we represent a grade-2 chondrosarcoma which was treated with inferior maxillectomy without neck dissection and chemoradiotherapy.

ankylosis (extracapsular). True ankylosis includes fibrous, fibroosseous and osseous ankylosis. Many methods such as gap arthroplasty, interpositional arthroplasty and total joint reconstruction using either autogenous or alloplastic materials have been published for treatment of ankylosed TMJ. Many different grafts have been reported as interpositional material for the treatment of TMJ ankylosis. The most popular interpositional grafting technique is the temporalis muscle flap. In this case report, treatment of an adult male patient ,who applied to our clinic with complaints of restricted mandibular movement , was performed using temporalis muscle flap as an interpositional grafting material.

## PP295

**Speciality:** Cleft Surgery

### **Repair of Unilateral Alveolar and Palate Cleft Using Autogenous Bone Graft Covered with Platelet Rich Fibrin Membran: A Case Report**

D. YILMAZ, Metin ŞENÇİMEN, Ö. ÖZKAYNAK, ,  
Necdet DOĞAN, Can Engin DURMAZ,  
Kemal Murat OKÇU

*G.A.T.A. Dentistry Sciences Center, Dept. of Oral Diagnosis and Radiology, Ankara, TURKEY*

**Summary:** Treatment of alveolar and palate clefts is a challenging procedure which sometimes require serial of operations. Closure of alveolar clefts is generally performed secondary at the age of 10 or 12. The cleft area is grafted with autogenous bone after water-tight closure of the nasal mucosa. We report reconstruction of unilateral alveolar and palatal cleft with particulated corticocancellous iliac graft and platelet rich fibrin membran of a 21 years old male patient who was treated before three times unsuccessfully.

## PP296

**Speciality:** Temporomandibular Joint

### **Using Temporal Muscle Flap in the Surgical Management of Temporomandibular Joint Ankylosis**

Yavuz YÜKSEL, Metin ŞENÇİMEN, Altan VAROL,  
Kemal Murat OKÇU, Can Engin DURMAZ,  
Necdet DOĞAN

*G.A.T.A. Dentistry Sciences Center, Dept. of Oral and Maxillofacial Surgery, Ankara, Turkey*

Temporomandibular joint (TMJ) ankylosis has been classified into true ankylosis (intracapsular) and pseudo

# PROGRAM





**Friday – May 16, 2008**

**09.30 – 18.00      REGISTRATION**

**13.00 – 14.30      SURGICAL CLINIC – 1              BEIRNE Ross**  
*Management of Medically Compromised Patients*

**14.30 – 14.45      COFFEE BREAK**

**14.45 – 16.15      SURGICAL CLINIC – 2              FEINBERG Stephen - HAERS Piet**  
*Current Guidelines to Conduct Research Projects with Emerging Trends  
and How to Get it Published*

**16.15 – 16.30      COFFEE BREAK**

**16.30 – 18.00      SURGICAL CLINIC – 3              EPKER Bruce N.**  
*Botox and Soft Facial Tissue Fillers*

**18.30              OPENING CEREMONY**

**19.30              PRESIDENT'S WELCOME RECEPTION**

## Saturday May 17, 2008

### OA1 ORAL ABSTRACT SESSION 1 (Trauma)

	ATILGAN Serhat, <i>TURKEY</i>	OP101
	BAKATHIR Abdulaziz A., <i>OMAN</i>	OP102
	ÇAĞLI Hakan, <i>TURKEY</i>	OP103
	ESEN Alparslan, <i>TURKEY</i>	OP104
08.00 – 09.30	HALAJMOFRAD Alireza, <i>IRAN</i>	OP105
	FOROUGHİ Ramin, <i>IRAN</i>	OP106
	HASHMI Ahmed Al, <i>AUSTRALIA</i>	OP107
	IBRAHİM Muhammed Wasim, <i>PAKISTAN</i>	OP108
	ATALAY Berkem, <i>TURKEY</i>	OP109

09.30 – 09.40 **BREAK**

### PLENARY SESSION 1

09.40 – 10.10	<b>HAERS Piet, UK</b> <i>Aesthetics in Orthognathic Surgery</i>
10.10 – 10.40	<b>TREVISIOL Lorenzo, ITALY</b> <i>The Occlusal Plane: A Reliable Tool to Fix the Face in Ortognathic Surgery</i>
10.40 – 11.00	<b>COFFEE BREAK</b>

### PLENARY SESSION 2

11.00 – 11.20	<b>BAYKUL Timuçin, TURKEY</b> <i>Repair Of Residuel Alveolar Clefts</i>
11.20 – 11.40	<b>GAREEB Fouad, EGYPT</b> <i>Nasal Problem in Facial Cleft</i>
11.40 – 12.10	<b>PRECIOUS David S., CANADA</b> <i>Functional Anatomic Surgery for Patients with Cleft Lip and Palate</i>
12.10 – 12.40	<b>CHEUNG Lim, HONG KONG-CHINA</b> <i>Distraction Versus Orthognathic Surgery for Cleft Lip and Palate Patients - Which is Better?</i>
12.40 – 13.00	<b>BREAK</b>

### OA2 ORAL ABSTRACT SESSION 2 (Oral Surgery)

	SHAHOON Hossein, <i>IRAN</i>	OP110
	AZIMI Reza Hamid, <i>IRAN</i>	OP111
	IŞIK Kubilay, <i>TURKEY</i>	OP112
13.00 – 14.20	GÜLSES Aydın, <i>TURKEY</i>	OP113
	ÖZKAN Birkan Taha, <i>TURKEY</i>	OP114
	KÖYMEN Cevlan Ertuğrul, <i>TURKEY</i>	OP115
	MESGARZADEH Ali Hossein, <i>IRAN</i>	OP116
	Yavuz M. SELİM, <i>TURKEY</i>	OP117
14.20 – 14.30	<b>BREAK</b>	

**PLENARY SESSION 3**

- 14.30 – 14.50** **KUMMOONA Raja, IRAQ**  
*Lateral Cervical Flap, Experimental & Clinical Application in Orofacial Region*
- 14.50 – 15.20** **SKOUTERIS Christos, GREECE**  
*Soft Tissue Cysts of the Neck: Natural History and Management*
- 15.20 – 15.40** **GÜNHAN Ömer, TURKEY**  
*Premalign Lesions of the Oral Cavity*
- 15.40 – 16.00** **COFFEE BREAK**

**OA3 ORAL ABSTRACT SESSION 3 (Trauma)**

- 16.00 – 17.00** GATAA Ibrahim S., *IRAQ* **OP118**  
ATILGAN Serhat, *TURKEY* **OP119**  
NEZAFATI Saeed, *IRAN* **OP120**  
NEZHAD Cyrus Mohamadi, *IRAN* **OP121**  
ALAN Hilal, *TURKEY* **OP122**  
ATILGAN Serhat, *TURKEY* **OP123**
- 17.00 – 17.20** **COFFEE BREAK**

**OA4 ORAL ABSTRACT SESSION 4 (Cleft / Craniofacial)**

- 17.20 – 18.20** SLEEM Heba, *EGYPT* **OP124**  
AKAY, Mehmet Cemal, *TURKEY* **OP125**  
AYDOĞDU Esen, *TURKEY* **OP126**  
ŞENEL Firdevs, *TURKEY* **OP127**  
ÇANDIRLI Celal, *TURKEY* **OP128**  
KOYUNCU Banu Özveri, *TURKEY* **OP129**

**ACBID Trainees / Residents Union Meeting****18.30**

**Coordinators: UÇKAN Sina,  
BASA Selçuk**

**Sunday May 18, 2008****OA5 ORAL ABSTRACT SESSION 5 (Pathology / Oral Medicine)**

	MYLONAS Anastassios I., <i>GREECE</i>	OP130
	KHIDR Mohamed Bahaa, <i>EGYPT</i>	OP131
	ULU Murat, <i>TURKEY</i>	OP132
<b>08.00 – 09.10</b>	SKOUTERIS Christos A., <i>GREECE</i>	OP133
	YILMAZ Nuray, <i>TURKEY</i>	OP134
	ESHGHPOUR Majid, <i>IRAN</i>	OP135
	DAYISOYLU Ezher Hamza, <i>TURKEY</i>	OP136
<b>09.10 – 09.30</b>	<b>BREAK</b>	

**PLENARY SESSION 4**

<b>09.30 – 10.00</b>	<b>BEIRNE O. Ross, US</b> <i>Regenerative Biology</i>
<b>10.00 – 10.30</b>	<b>EPKER Bruce, N. US</b> <i>Mini Face-Lift: Indications, Technique and Results</i>
<b>10.30 – 10.50</b>	<b>COFFEE BREAK</b>

**PLENARY SESSION 5**

<b>10.50 – 11.20</b>	<b>SALINS Paul, INDIA</b> <i>The Principles of Management of Perioral Vascular Malformations</i>
<b>11.20 – 11.50</b>	<b>TOMBRIS Stavros, GREECE</b> <i>The Surgical Treatment of Hemangiomas and Vascular Malformations of the Face</i>
<b>11.50 – 12.10</b>	<b>AL-BARGI Hamed, SAUDI ARABIA</b> <i>The Radiolucency of the Jaw</i>
<b>12.10 – 12.30</b>	<b>CHANGSIRIVATANATHAMRONG Vacharee, TAILAND</b> <i>Aggressive Ameloblastoma Report of 5 Cases.</i>
<b>12.30 – 13.10</b>	<b>BREAK</b>

**OA6 ORAL ABSTRACT SESSION 6 (Oral Surgery / Anesthesia)**

	ÖZKAN Birkan Taha, <i>TURKEY</i>	OP137
	ÇANKAYA Mustafa, <i>TURKEY</i>	OP138
	KÖYMEN Cevlan Ertuğrul, <i>TURKEY</i>	OP139
<b>13.10 – 14.20</b>	İŞİK Kubilay, <i>TURKEY</i>	OP140
	MAUSSA Qais H., <i>IRAQ</i>	OP141
	ÖZKAN Birkan Taha, <i>TURKEY</i>	OP142
	MAREI Ahmed H., <i>CANADA</i>	OP143
<b>14.20 – 14.30</b>	<b>BREAK</b>	

**PLENARY SESSION 6**

- 14.30 – 15.00**      **SARKARAT Farzin – BOHLULI Behnam, IRAN**  
*External and Internal Osteotomy in Rhinoplasty*
- 15.00 – 15.30**      **STRAUSS Robert, US**  
*Current Trends in the Surgical Management of Obstructive Sleep Apnea Patients*
- 15.30 – 16.00**      **SWENNEN Gwen, BELGIUM**  
*Three-Dimensional Virtual Planning of Orthognathic Surgery*
- 16.00 – 16.20**      **COFFEE BREAK**

**PLENARY SESSION 7**

- 16.20 – 16.40**      **MORTAZAVI Hossein, IRAN**  
*Approches to Unusual Difficult Cases*
- 16.40 – 17.00**      **MUGHAL Dr. Jehanzeb, PAKISTAN**  
*Proposal for Revising Classification of Frontal Sinus Fractures*
- 17.00 – 17.20**      **RAHSEPAR Behzad, IRAN**  
*The Treatment of Naso-Ethmoido-Orbital Fracture*
- 17.20 – 17.40**      **COFFEE BREAK**

**OA7 ORAL ABSTRACT SESSION 7 (Reconstruction)**

- |                      |   |       |
|----------------------|---|-------|
|                      | MAHMOUD Ashraf A. F., EGYPT             | OP144 |
|                      | AHMED Riaz, PAKISTAN                    | OP145 |
|                      | GOISIS Mario, ITALY                     | OP146 |
| <b>17.40 – 19.00</b> | GÜLSES Aydın, TURKEY                    | OP147 |
|                      | GARAJEI Ata, IRAN                       | OP148 |
|                      | SOUKARIEH Abdel Nasser A., SAUDI ARABIA | OP149 |
|                      | ZADEH Rozina Besharati, IRAN            | OP150 |
|                      | GOISIS Mario, ITALY                     | OP151 |

**Monday May 19, 2008****OA8 ORAL ABSTRACT SESSION 8 (Oncology)**

	TALABANI Nazar, <i>IRAQ</i>	OP152
	SHAH Irfan, <i>PAKİSTAN</i>	OP153
	TABRIZI Reza, <i>IRAN</i>	OP154
08.00 – 09.20	TÖRE Gökhan, <i>TURKEY</i>	OP155
	AZAD Ali Azad, <i>PAKİSTAN</i>	OP156
	SHEHATA Ehab, <i>SAUDI ARABI A</i>	OP157
	SKOUTERIS Christos A., <i>GREECE</i>	OP158
	MESGARZADEH Ali Hossein, <i>IRAN</i>	OP159
09.20 – 09.40	<b>BREAK</b>	

**PLENARY SESSION 8**

09.40 – 10.10	<b>GUERRERO Cesar A., VENEZUELLA</b> <i>Alveolar Distraction Versus Zygomatic Implants</i>
10.10 – 10.40	<b>OLSSON Alexis B., US</b> <i>Immediate Loading and Anterior Esthetics with Implants</i>
10.40 – 11.00	<b>KONSTANTINOVIC Vitomir S., SERBIA</b> <i>Maxillofacial Prosthodontics Implants</i>
11.00 – 11.20	<b>COFFEE BREAK</b>

**PLENARY SESSION 9**

11.20 – 11.40	<b>ŞENEL Çizmeçi Figen, TURKEY</b> <i>Current Update of Biphosphonates in Oral Maxillofacial Surgery</i>
11.40 – 12.00	<b>DURMUŞ Ercan, TURKEY</b> <i>Use of Eggshell and Eggshell Membrane as Biomaterials</i>
12.00 – 12.30	<b>STASSEN Leo, IRELAND</b> <i>Facial Pain, Trismus and Closed Lock</i>
12.30 – 13:00	<b>BREAK</b>

**OA9 ORAL ABSTRACT SESSION 9 (TMJ)**

	EL-SHOLKAMY Mohammed A., <i>EGYPT</i>	OP160
	TÜZÜNER Mine Ayşegül, <i>TURKEY</i>	OP161
	MARZOOK Hamdy A., <i>EGYPT</i>	OP162
13.00 – 14.20	ÖZKAN Aydın, <i>TURKEY</i>	OP163
	SAID Mohamed, <i>EGYPT</i>	OP164
	SALAM Hani A., <i>CANADA</i>	OP165
	TOZOĞLU Sinan, <i>TURKEY</i>	OP166
	AKÇA Taylan, <i>TURKEY</i>	OP167
14.20 – 14.30	<b>BREAK</b>	

**PLENARY SESSION 10**

- 14.30 - 15.00** **HIDDING Johannes, GERMANY**  
*Restoration of the Alveolar Process by Distraction Osteogenesis*
- 15.00 - 15.20** **ALYAMANI Ahmed, SAUDI ARABIA**  
*Mandibular Distraction in Temporomandibular Joint Ankylosis*
- 15.20 - 15.40** **SOARES Marcelo Melo, BRAZIL**  
*The Indications of Distraction Osteogenesis on the Reconstructive Alveolar Surgery*
- 15.40 - 16.00** **COFFEE BREAK**

**OA10 ORAL ABSTRACT SESSION 10 (Deformity)**

- 16.00 - 17.00**
- HASHEMI Hamid Mahmood, *IRAN* **OP168**
- ÇİMEN Emre, *TURKEY* **OP169**
- SOYDAN Sıdıka Sinem, *TURKEY* **OP170**
- ÖZKAN Birkan Taha, *TURKEY* **OP171**
- LU Li, *CHINA* **OP172**
- KIZILKAYA Metin, *TURKEY* **OP173**
- 17.00 - 17.10** **BREAK**

**AKDENİZ SALOON****OA11 ORAL ABSTRACT SESSION 11 (Implants / Reconstruction)**

- 17.10 - 18.30**
- ÇANDIRLI Celal, *TURKEY* **OP174**
- MARINHO Fabio Guerra Lois, *BRAZIL* **OP175**
- DENİZ Kağan, *TURKEY* **OP176**
- KAHRAMAN Berfin, *TURKEY* **OP177**
- MISIR Ahmet Ferhat, *TURKEY* **OP178**
- ARTA Seyed Ahmad, *IRAN* **OP179**
- KARAÇAYLI Ümit, *TURKEY* **OP180**
- SALAM Hani A., *CANADA* **OP181**
- 20.00** **GALA DINNER**

**Tuesday – May 20, 2008**

- 10.30 - 12.00** **SURGICAL CLINIC – 4** **Cesar GUERRERO**  
*Intraoral Distraction Osteogenesis A to Z*
- 13.00 - 15.00** **ACBID Executive Board Meeting**





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