

# ACBID

2016

## 10<sup>th</sup> INTERNATIONAL CONGRESS



May 11-15, 2016

Regnum Carya Golf & Spa Resort - Belek ANTALYA

ACBID

10<sup>th</sup> INTERNATIONAL CONGRESS



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# ABSTRACTS



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## Scientific Programme

### Wednesday, 11<sup>th</sup> May 2016

Registration Courses Poster Presentation Exhibition Symposias Oral Abstract Masterclass Social Events, Breaks

08:00-18:30	<b>Registration</b>
13:30-18:00	<b>Pre-conference Course: Correction of Dentofacial Deformities</b> <b>Main Hall</b> Chairperson: <i>Hakkı Tanyeri, Doğan Dolanmaz, Zafer Özgür Pektaş</i>
13:30-14:10	Rationale for clockwise and counterclockwise rotations in orthognathic surgery <i>Piet Haers (UK)</i>
14:10-14:50	Surgical decision making in orthognathic surgery <i>Reha Kişnişci (Turkey)</i>
14:50-15:30	Orthognathic surgery in CLP: Basic approaches and current issues <i>Nabil Samman (Hong Kong)</i>
15:30-16:00	<b>Coffee Break</b>
16:00-16:40	Timing of orthognathic surgery <i>Velupillai Ilankovan (UK)</i>
16:40-17:20	Complications and reoperations in orthognathic surgery <i>Manlio Galie (Italy)</i>
17:20-18:00	Treatment planning based on age in orthognathic surgery; Interventions & Results <i>Sina Uçkan (Turkey)</i>
19:00	<b>Dinner</b>



Registration	Courses	Poster Presentation	Exhibition	Symposias	Oral Abstract	Masterclass	Social Events, Breaks	Thursday, 12 <sup>th</sup> May 2016
08:00-18:00	Registration							
08:00-17:00	Poster Presentations							
08:00-17:00	Exhibition							
08:30-09:40	Oral Abstract Session 1							
	HALL A Chairperson: <i>Ediz Deniz, Gülperi Şanlı Koçer</i>			HALL B Chairperson: <i>Sıdıka Sinem Akdeniz, Sinan Tozoğlu</i>			HALL C Chairperson: <i>Emel Bulut, Hasan Yeler</i>	
08:30-08:40	Finite Element Evaluation of Open Reduction of Mandibular Fractures With or Without Tooth Extraction <i>-Tuğçe Göktürk</i>			The Evaluation of Bone Mineral Density Alterations in Patients with Medication-Related Osteonecrosis of the Jaw (MRONJ) <i>-Fatih Asutay</i>			'SurgeryOnly' Approach for Correction of Dentofacial Anomalies <i>-Bilal Cemşit Sarı</i>	
08:40-08:50	Evaluation of morbidity following anterior iliac crest bone grafting for the reconstruction of deficient alveolar ridges via general and combined spinal epidural anesthesia <i>-Erol Cansız</i>			The Outcomes of Ablative Treatment of Actinic and Seborrheic Keratosis with CO2 and Erbium Laser <i>-Alper Sindel</i>			Intraoral Vertical Ramus Osteotomy For The Treatment of Asymmetric Mandible: A Case Report <i>-Pinar Yüce</i>	
08:50-09:00	The Evaluation of The Diagnostic Value of Mean Platelet Volume (MPV) In Patients With Isolated Mandible Fractures <i>-Hamdi Sarı</i>			Clinical and Histopathological Features of Peripheral Odontogenic Fibromas <i>-Muhammet Bahattin Bingöl</i>			Three Dimensional Evaluation of the Effects of Surgically Assisted Rapid Maxillary Expansion on Facial Soft Tissue <i>-Arzu Günaydin</i>	
09:00-09:10	Pediatric mandibular reconstruction with vascularized fibula flap in a warvictim: a casereport <i>-Nasuh Kolsuz</i>			The Effect of Decompression in the Histologic Diagnosis of Cystic Jaw Lesions: A Preliminary Report <i>-Mehmet Ali Altay</i>			Experimental Comparison of Fixation Methods in Sagittal Split Ramus Osteotomy <i>-Nurdan Kafalı Ünsal</i>	
09:10-09:20	Reconstruction of Edentulous Mandible Corpus Fracture: A Case Report <i>-Mehmet Kürşat Aladağ</i>			Decompression Tubes in the Management of Large Odontogenic Cysts: Case Series <i>-Ali Rende</i>			Alveolar Distraction osteogenesis by HYCON™ Device <i>-Büşra Çetinkaya</i>	
09:20-09:30	Investigation of the Efficiency of Laser and Platelet Rich Fibrin (PRF) on Rabbit Inferior Alveolar Nerve Injuries <i>-Mutan Hamdi Aras</i>			Smoking Related Alterations on miRNA Expression of Oral Mucosa: A Preliminary Study <i>-Betül Taş</i>			Surgically Facilitated Orthodontic Treatment <i>-Neziha Keçecioğlu</i>	
09:30-09:40	Comparison of Ozon and Photobiomodulation Therapies on Mental Nerve Injury in Rats <i>-Türker Yücesoy</i>						Effects of Low Laser Therahpy In Terms of Pain, Trismus and Edema With Comparison of Stereophotogrammetry and Linear Measuring Method After Surgical Assisted Rapid Maxillary Expansion <i>- Samed Sönmez</i>	
09:40-10:00	Coffee Break							

### Thursday, 12<sup>th</sup> May 2016

Registration Courses Poster Presentation Exhibition Symposias Oral Abstract Masterclass Social Events, Breaks

10:00-12:00	<b>Major Symposium 1 - Trauma and Reconstruction</b> <b>Main Hall</b>	
	Chairpersons: <i>Piet Haers, Nabil Samman, Seyed Ahmad Arta</i>	
10:00-10:30	Panfacial trauma <i>Velupillai Ilankovan (UK)</i>	
10:30-11:00	Reconstruction of the midface <i>Julio Acero (Spain)</i>	
11:00-11:30	Etiopathogenesis & dynamics of orbito - maxillary trauma. Management of enophthalmos <i>Manlio Galie (Italy)</i>	
11:30-12:00	In vitro development of skin, oral mucosa and a mucocutaneous junction for lip reconstruction <i>Gürkan Raşit Bayar (Turkey)</i>	
12:00-13:30	<b>Lunch</b>	
12:15-13:30	<b>Masterclass 1</b> <b>Room A</b>	<b>Masterclass 2</b> <b>Room B</b>
	Chairpersons: <i>Ferhat Mısır</i>	Chairpersons: <i>Nüket Kütük</i>
	Photography excellence <i>Ömer Engin (Turkey)</i> **Quota is limited for 30 persons	Basic life support Hands-on Course <i>Ahmet Can Şenel (Turkey)</i>
13:30-14:30	<b>Major Symposium 2 - Oral and Maxillofacial Pathology &amp; CLP</b> <b>Main Hall</b>	
	Chairpersons: <i>Alexis Olsson, Manlio Galie, Sina Uçkan</i>	
13:30-14:00	3D analysis of outcomes in cleft surgery and numeric assessment of the impact of single procedures <i>Piet Haers (UK)</i>	
14:00-14:30	Surgical strategy in the management of vascular lesions <i>Sanjiv Nair (India)</i>	
14:30-15:00	Burden and benefit of surgery for cleft deformity <i>Nabil Samman (Hong Kong)</i>	
15:00-15:30	Management of parafaryngeal space tumors <i>Vladimir Popovski (Macedonia)</i>	
15:30-16:00	<b>Coffee Break</b>	
16:00-17:30	<b>Mini Course</b> <b>Main Hall</b>	
	Chairperson: <i>Alper Alkan, Erdem Kılıç</i>	
	Orthognathic surgery planning, strategies, on the way to success <i>Timuçin Baykul (Turkey), Serhat Özsoy (Turkey)</i> *Quota is limited for 30 persons	
18:30-19:30	<b>Opening Ceremony</b>	
	<b>Dinner</b>	
22:30	<b>10<sup>th</sup> Years Birthday Celebration</b>	

08:00-17:00	<b>Poster Presentations</b>		
08:00-17:00	<b>Exhibition</b>		
08:30-09:50	<b>Oral Abstract Session 2</b>		
	<b>HALL A</b> Chairperson: <i>Cem Üngör, Metin Güngörmüş</i>	<b>HALL B</b> Chairperson: <i>Rezzan Güner, Kubilay Bozkurt Işık</i>	<b>HALL C</b> Chairperson: <i>Ahmet Mihmanlı, Metin Şençimen</i>
08:30-08:40	General vs. Local Anesthesia In Temporomandibular Joint Arthrocentesis -Salih Eren Meral	The Use of i-PRF in Secondary Alveolar Cleft Repair -Ufuk Tatlı	Relation Between Dental Disease and Hyperglycemia in Prediabetic Patients -Ziya Demir
08:40-08:50	Treatment of Temporomandibular Joint Ankylosis by Gap Arthroplasty; Case series -Muhammed Humam Alghamian	Bite Strip analysis of the effect of fluoxetine and paroxetine on sleep bruxism -Emrullah Özen	Comparison of the Effect of Postoperative Care Agents on Human Gingival Fibroblasts -Uğur Mercan
08:50-09:00	Evaluation the efficacy of different concentrations of dextrose prolotherapy in temporomandibular joint hypermobility treatment -Rawand Mustafa	An Analysis of Mandibular Symphyseal Graft Sufficiency for Alveolar Cleft Bone Grafting: A Simulation Study Based on Three-dimensional Computerized Tomography -Adnan Kiliç	The effect of local rosuvastatin administration on calvarial bone defects -Akif Türer
09:00-09:10	Is Peek Material An Alternative For Custom Made Hemi-joint Fossa Prosthesis? A Finite Element Study -Ismail Eser Bolat	Exosomes Secreted from Dental Pulp Mesenchymal Stem Cells Promote Repair and Regeneration of Temporomandibular Joint in Osteoarthritis -Zeynep Burçin Gönen	The Effects of Panax Ginseng and Pantoprazole on Bone Defect Healing -Yusuf Atalay
09:10-09:20	Does the lower third molar impaction pattern alter The risk of condylar fracture -Ömer Öner	Objective assessment of occlusal splint usage time via wearable micro-sensors and comparison of treatment efficiency for treatment of TMD patients -Mert Bülte	The Effects of Ozone Therapy on Genotoxic Damage and Wound Healing in Bisphosphonates Applied Human Fibroblast Cell Cultures -Esra Beyler
09:20-09:30	Efficiency of Glucosamine Chondroitin-MSM Usage after One Session Hyaluronic Acid (HA) Injection Following Arthrocentesis for Management of Temporomandibular Joint Osteoarthritis -Songül Cömert Kiliç	Effect of Piezoelectric Surgery on Bone Regeneration Following Distraction Osteogenesis of the Rabbit Mandible -Emre Tosun	Use of Binaural Beats for Reducing Preoperative Anxiety in Oral Surgery -Ali Kiliç
09:30-09:40	Piezosurgical Eminectomy for the Treatment of Recurrent Temporomandibular Joint Dislocation -Ufuk Tatlı	The Use of Sequentially VEGF and BMP-2 Releasing Biodegradable Scaffolds in Rabbit Mandibular Defects -Esengül Bekar	Dental pulp stem cells combined with low-level laser therapy accelerates new bone regeneration in the rapid maxillary expansion procedure -Emrullah Özen
09:40-09:50	Botulinum toxin type A in management of oromandibular dystonia associated with hypoxic- ischaemic brain injury -Esin Demir	Maxillary Distraction Osteogenesis in Cleft Patient: A Case Series -Burak Bulmuş	A minimally-invasive procedure using sphenopalatine ganglion blockade for the management of trigeminal neuralgia: preliminary report -Ilker Cöven
09:50-10:00	<b>Coffee Break</b>		

### Friday, 13<sup>rd</sup> May 2016

Registration Courses Poster Presentation Exhibition Symposias Oral Abstract Masterclass Social Events, Breaks

10:00-12:00	<b>Major Symposium 3 - Anesthesia &amp; TMJ</b>			<b>Main Hall</b>
	Chairpersons: <i>Vellupilai Ilankovan, Ahmet Can Şenel, Hanife Ataoğlu</i>			
10:00-10:30	Treatment of trigeminal neuralgia with bupivacaine HCl using a temporary epidural catheter and pain pump <i>Gühan Dergin (Turkey)</i>			
10:30-11:00	Pre-Post Operative patient assessment of maxillofacial surgery patient <i>Onat Bermede (Turkey)</i>			
11:00-11:30	3-D evaluation of facial swelling <i>Winnie Choi (Hong-Kong)</i>			
11:30-12:00	Discectomy for TMJ internal derangement <i>Michael Miloro (USA)</i>			
12:00-13:30	<b>Lunch</b>			
12:15-13:30	<b>Masterclass 3 Room A</b>	<b>Masterclass 4 Room B</b>	<b>Masterclass 5 Room C</b>	
	Chairpersons: <i>Ezher Hamza Dayısoylu</i>	Chairpersons: <i>Meltem Koray</i>	Chairpersons: <i>Firdevs Veziroğlu Şenel</i>	
	Neurotoxin injection <i>Velupillai Ilankovan (UK)</i>	Pre-implant surgery <i>Murat Akkocaoğlu (Turkey)</i>	Basic life support hands-on course <i>Ahmet Can Şenel (Turkey)</i> <i>Onat Bermede (Turkey)</i>	
13:30-15:30	<b>Major Symposium 4 - Orthognathic Surgery</b>			<b>Main Hall</b>
	Chairpersons: <i>Julio Acero, Reha Ş. Kışnişçi, Timucin Baykul</i>			
13:30-14:00	Tips for orthognathic surgery <i>Alper Alkan (Turkey)</i>			
14:00-14:30	Splintless maxillary positioning in orthognathic surgery <i>Alexander Schramm (Germany)</i>			
14:30-15:00	Dreams & realities of orthognathic surgery <i>Burak Bayram (Turkey)</i>			
15:00-15:30	Virtual orthognathic surgery perspectives <i>Alexis Olsson (USA)</i>			
15:30-16:00	<b>Coffee Break</b>			
16:00-17:00	<b>Award Winning Residency Exam – Reha Kışnişçi, Berkay Tolga Süer</b>			<b>Main Hall</b>
19:00	<b>Dinner</b>			
20:30 -21:30	<b>Stand up show</b> <i>Serdar Sıralar</i>			





09:00-17:00	<b>Poster Presentations</b>		
09:00-17:00	<b>Exhibition</b>		
08:30-09:50	<b>Oral Abstract Session 3</b>		
	<b>HALL A</b> Chairperson: <i>Alp Saruhanoğlu, Mutan Hamdi Aras</i>	<b>HALL B</b> Chairperson: <i>Altan Varol, Bora Özden</i>	<b>HALL C</b> Chairperson: <i>Sertan Ergun, Burcu Baş</i>
08:30-08:40	Surgical Preparation of Atrophic Jaws of Edentulous Patients For Implant Supported Dental Prosthesis -Berk Turgay	Efficacy of Ice Pack Therapy in Impacted Third Molar Surgery: A Randomized Controlled Clinical Trial -Nurettin Diker	Anesthetic Approach to Niemann-Pick Type C Patient for Dental Treatment -Ayşe Hande Arpacı
08:40-08:50	Is the preparation and application of PRF safe in standard local operating room air?: A prospective Study -Emrah Soylu	Ewing Sarcoma Of The Mandible Diagnosed In The Retromolar Area After Extraction of Mandibular Third Molar: A Case Report -Duygu Ofluoğlu	Effect of laser and ozonotherapy on oral mucositis -Ahmet Hüseyin Acar
08:50-09:00	A New Approach for Horizontal Augmentation of Posterior Maxilla Using Ridge Split Technique -Nazife Begüm Karan	Evaluation of Treatment Outcome and Periodontal Status After Third Molar Surgery with the Use of Autologous Platelet-Rich Fibrin -Öznur Özalp	Platelet-rich fibrin in dentoalveolar surgical procedure -Emin Mortaş
09:00-09:10	Preliminary Report: Split-crest technique for mandibula ridge augmentation -Emine Tuna Akdoğan	Evaluation of the Effects of Low Level Laser Therapy on Edema, Trismus and Pain After Third Molar Surgery -Harun Görgülü	Clinic Evaluation of Efficacy of Transcortical Anesthesia for Extraction of Impacted Mandibular Third Molars -Esin Demir
09:10-09:20	Direct Sinus Lifting with Platelet-Rich Fibrin (PRF) and Simultaneous Dental Implant Placement Without Grafting -Adem Baran Ağırbaş	Comparison the Efficacy of Laser and LED Phototherapies in the Management of Pain and Facial Swelling After Impacted Lower Third Molar Surgery -Duygu Dinçer	Is It A Real Necessity to Interrupt Antiplatelet Drugs Before Dental Extraction -Nur Altıparmak
09:20-09:30	Histological Evaluation of The Effect of Concentrated Growth Factor (CGF) on Bone Healing -Mustafa Cenk Durmuşlar	Presentation and management of patients with Trigeminal nerve injuries due to periapical infections -Zehra Yılmaz	A new prosthetic - surgical technique for reconstruction of naso -orbito - cranial defect by using tridimensional prototypic models -Ali Hossein Mesgarzadeh
09:30-09:40	Conservative Treatment of Recurrent Temporomandibular Joint Dislocation with Autologous Blood Injection -Mahmut Koparal	Iloprost: may be a new therapy option for MRONJ patients? -Burak Öner	Effects of Single High-Dose Systemic D-Vitamin Injection to Early Healing Period of Condylar Fracture in Osteoporotic Rats -Uğur Mercan
09:40-09:50	The Evaluation of the Relationship Between Localization and Biological Behaviour of Intraoral Minor Salivary Gland Tumors -Ömür Dereci	Effectiveness of amoxicillin/clavulanic acid in reducing postoperative infection and complications after mandibular third molar surgery -Gökhan Gürses	Posterior Maxillary Glandular Odontogenic Cyst: A Rare Entity, case report -Nazlı Altın



## Saturday, 14<sup>th</sup> May 2016

Registration Courses Poster Presentation Exhibition Symposias Oral Abstract Masterclass Social Events, Breaks

09:50-10:00	<b>Coffee Break</b>		
10:00-12:00	<b>Major Symposium 5 - Implantology</b>		<b>Main Hall</b>
	Chairpersons: <i>Viladimir Popovski, Murat Akkocaoğlu, Ali Hossein Mesgarzadeh</i>		
10:00-10:30	Zygomatic implant solutions <i>Fernando Duarte (Portugal)</i>		
10:30-11:00	SAC classification and its impact in the esthetic zone <i>Karl Andreas Schlegel (USA)</i>		
11:00-11:30	Quality assessment of 120 different implants in the SEM – Do we need a new standard of purity? <i>Dirk Duddeck (Germany)</i>		
11:30-12:00	How to achieve better implant stability in implantology? Implant shape, influence of surgical technique or efficacy of bone density? Does it all matter? <i>Ahmet Arslan (Turkey)</i>		
12:00-13:30	<b>Lunch</b>		
13:30-14:30	<b>Masterclass 6 Room A</b> Chairpersons: <i>Gürkan Raşit Bayar</i>	<b>Masterclass 7 Room B</b> Chairpersons: <i>Gühan Dergin</i>	<b>Masterclass 8 Room C</b> Chairpersons: <i>Berkay Tolga Süer</i>
	Implance Implants <i>Michael Miloro (USA)</i> <i>Selçuk Basa (Turkey)</i> <i>Altan Varol (Turkey)</i> Zygomatic Implants Concept	Nucleoss Implants <i>Dirk Duddeck (Germany)</i> Part I: Periimplantitis - Upcoming tsunami or only storm in a teacup? Part II: Resonance Frequency Analysis - Quality management in Implant Therapy	Reconstruction of the edentulous Jaws <i>Karl Andreas Schlegel(USA)</i>
14:30-16:30	<b>Board member meeting</b>		
20:30	<b>Awards and Closing Party</b>		<b>Main Hall</b>

## Sunday, 15<sup>th</sup> May 2016

08:30-12:00	<b>Check-Out</b>
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# ACBID



2016

May 11-15, 2016 ANTALYA

10<sup>th</sup> INTERNATIONAL CONGRESS

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## ORAL PRESENTATIONS

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**SS-001****The Evaluation of Bone Mineral Density Alterations in Patients with Medication-Related Osteonecrosis of the Jaw (MRONJ)**

Fatih Asutay

*Afyon Kocatepe University*

**Objective:** Recently, Medication-related osteonecrosis of the jaw (MRONJ) became an important issue for the oral and maxillofacial surgeons. The purpose of the present study was to evaluate bone mineral density (BMD) alterations of patients with MRONJ.

**Methods:** Twenty-one patients with MRONJ (10 male, 11 female; 58.4±13.2 mean age) and twenty-four controls without any osteoporotic treatment, jaw surgery and radiotherapy (12 male, 12 female; 55.3±15.1 mean age) were enrolled to the study. All participants' computed-tomographies (CT) were evaluated and BMD values of the jaws were determined by the Hounsfield Unit (HU). BMD measurements were performed on the mandibular condyle. Age, gender, medical status, usage of medication and duration of treatment are recorded.

**Results:** There was no statistically significant difference in gender, age or BMD between the patients with MRONJ and the control group but mandibular BMD was increased in patients with MRONJ.

**Conclusions:** However, it is difficult to draw any conclusions from the current cross-sectional study, MRONJ were found to be associated with increased mandibular BMD. The results of the present study revealed that the mandibular BMD level was higher in patients with than in the control group.

### SS-002

## The Evaluation of the Relationship Between Localization and Biological Behaviour of Intraoral Minor Salivary Gland Tumors

Ömür Dereci<sup>1</sup>, Serkan Tüzün<sup>2</sup>, Adnan Öztürk<sup>3</sup>, Ömer Günhan<sup>4</sup>

<sup>1</sup>Eskişehir Osmangazi University, Faculty of Dentistry, Department of Oral and Maxillofacial Surgery, Eskişehir, Turkey

<sup>2</sup>Private Practice, İstanbul, Turkey

<sup>3</sup>Ankara University, Faculty of Dentistry, Department of Oral and Maxillofacial Surgery, Ankara, Turkey

<sup>4</sup>Gülhane Military Medical Academy, Ankara, Turkey

**Objective:** The objective of this study is to establish a relationship between localization and biological behaviour of minor salivary gland tumors.(MSGTs)

**Methods:** The data and histologic slides of MSGT cases retrieved from archives and demographic characteristics were evaluated. Three hundred and seven cases were included in the study and the demographic data regarding age, sex, localization and initial diagnosis was re-examined. New histologic slides were prepared with 3-5 micron section cuts of 44 malignant cases of which paraffin blocks are well-preserved and stained with hematoxylin-eosin. p53 and Ki-67 immunostainings were performed to evaluate the proliferation potential and histological grade of 44 malignant MSGTs. The significance of difference of mean age between subjects with benign and malignant MSGTs, relationship between tumor localization and biologic behavior (benignity-malignity), relationship between gender and biological behavior (benignity-malignity) and relationship between p53 and Ki-67 expression intensity in selected malign cases were evaluated. The level of significance was set at 0.05.

**Results:** Among the 307 cases of the study population, 142 were benign and 165 were malignant. Patients with malign tumors were significantly older than patients with benign tumors. ( $p<0.001$ ) There was no statistically significant relationship between gender and biological behavior. ( $p>0.05$ ) There was strong evidence of a relationship between localization and biological behavior of MSGTs. ( $p<0.001$ ) There was no statistical significant relationship between the expression intensity of Ki-67 and p53 immunostaining ( $p>0,05$ ).

**Conclusions:** There is a strong relationship between biological behavior and intraoral localization of the tumor. Malign MSGTs more frequently occur on maxillary region, tongue, cheek, retromolar area and upper lip than the other parts of the oral cavity.



### SS-003

## **Evaluation of Morbidity Following Anterior Iliac Crest Bone Grafting for The Reconstruction of Deficient Alveolar Ridges via General and Combined Spinal Epidural Anesthesia**

Erol Cansız<sup>1</sup>, Alper Gültekin<sup>2</sup>, Sabri Cemil İşler<sup>1</sup>, Tolga Şitilci<sup>1</sup>

<sup>1</sup>*İstanbul Üniversitesi Diş Hekimliği Fakültesi, Ağız Diş Çene Cerrahisi Ana Bilim Dalı, İstanbul*

<sup>2</sup>*İstanbul Üniversitesi İstanbul Fakültesi, Oral İmplantoloji Ana Bilim Dalı, İstanbul*

The main aim of the study is to directly evaluate the difference of graft resorption, patient satisfaction and morbidity by using general anesthesia and combined spinal epidural anesthesia for anterior iliac crest bone grafting.

The investigators implemented a retrospective study including patients who underwent anterior iliac block bone grafting for deficient maxillary alveolar ridges under GA or CSEA. The primary outcome variables were pain, gait disturbance, and neurosensory disturbance (0 to 5 weeks); vomiting tendency (0 to 7 days); postoperative hospitalization period (0 to 2 days); free gingival graft requirement; and acceptance of reoperation (1 year). The secondary outcome variable was volumetric changes at the augmented sites from baseline (V-0) to 3 weeks (V-I) and 4 months (V-II) after surgery.

The sample comprised 22 patients grouped as follows: GA (n = 10) and CSEA (n = 12). No complications were observed during the study period. Pain during initial healing ( $P < .001$ ), the gait disturbance rate at 3 weeks after surgery ( $P = .003$ ), and the vomiting tendency on the day of surgery ( $P < .001$ ) were significantly higher in the GA group than in the CSEA group; all variables showed significant improvement with time in both groups.

No significant differences were observed between groups with regard to neurosensory disturbance, free gingival graft requirement, and acceptance of reoperation. The total average resorption at the grafted site from V-I to V-II was 34% in both groups ( $P < .001$ ). There was no significant difference between groups in the percentage of graft resorption ( $P > .05$ ).

In conclusion, iliac block bone grafting for deficient maxillary ridges can be successful under both GA and CSEA, although CSEA results in less pain and vomiting and early recovery, thus increasing patient comfort. Clinicians should take precautions with regard to significant grafted site resorption during treatment planning.

**SS-004****Relation Between Dental Disease and Hyperglycemia in Prediabetic Patients**

Ziya Demir<sup>1</sup>, Canan Çiçek Demir<sup>2</sup>, Yusuf Bozkuş<sup>2</sup>

<sup>1</sup>Hava Kuvvetleri Komutanlığı 1.Basamak Muayene Merkezi

<sup>2</sup>Ankara Onkoloji Eğitim Araştırma Hastanesi Endokrinoloji Kliniği

**Objective:** We aimed to evaluate relation between dental diseases and blood glucose levels in prediabetic patients.

**Method:** 86 prediabetic patient (female/male: 47/39, mean age: 52±9 years) diagnosed by 75gram oral glucose tolerance test and 88 healthy control (female/male: 46/42, mean age: 49±7 years) included into the study. Fasting glucose(FG), postprandial glucose(PPG) and HbA1c levels were measured. Dental and periodontal examination was performed. Participants answered questionnaires concerning drug use, smoking habits, mouth and dental care.

**Results:** There was no significant difference between groups for socioeconomic and other demographic features, tooth brushing, dental visit frequency and smoking habits. Gingival recession frequency is %58 in prediabetic grup and %32 in control group (p<0.05),gingival bleeding is %46 in the first group and %34 in latter (p<0.05), periodontal pocket presence is %24.1 in prediabetic group anda %11.2 in control group (p<0.05).

**Conclusions:** Periodontal disease is significantly higher in prediabetic patients compared to control group. The disturbing effect of chronic hyperglycemia on neutrophil functions may play a role on this result. Dental examination should be considered for newly diagnosed prediabetes. Also detected periodontal problems should suggest glucose metabolism impairments.

**SS-005****An Analysis of Mandibular Symphyseal Graft Sufficiency for Alveolar Cleft Bone Grafting: A Simulation Study Based on Three-dimensional Computerized Tomography**

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**Objective:** The aim of this study was to evaluate the sufficiency of the mandibular symphysis as a donor site for unilateral and bilateral alveolar grafting, measuring both the alveolar cleft volume and maximum bone graft volume that can be harvested from the mandibular symphysis using 3D CT and software in children and adults.

**Methods:** CT data obtained from 20 unilateral and bilateral cleft lip palate (UCLP, BCLP) patients in the preoperative period were used in this study. The patients were divided into two groups: children (female, n=5; male, n=5) and adults (female, n=5; male, n=5). The required bone graft volume for grafting and the maximum bone graft volume that can be harvested from the mandibular symphysis were measured based on CB CT data and software (Mimics, Materialise, Leuven, Belgium). The paired Student's t-test and Wilcoxon's signed-rank test were used to compare these measurements.

**Results:** The average required bone graft volume (cleft volume) for unilateral alveolar grafting was  $963.51 \pm 172.31$  mm<sup>3</sup> in the children and  $1001.21 \pm 268.16$  mm<sup>3</sup> in the adults, and for bilateral alveolar grafting was  $1457.82 \pm 148.18$  mm<sup>3</sup> in the children and  $2189.59 \pm 600.97$  mm<sup>3</sup> in the adults. The average the mandibular symphysis bone graft volume was  $819.29 \pm 330.85$  mm<sup>3</sup> in the children and  $2164.9 \pm 1095.86$  mm<sup>3</sup> in the adults. When the required bone graft volume for alveolar grafting was compared with that of the mandibular symphysis bone graft volume using a t test, the p values were as follows: p=0.222 for UCLP and p=0.001 for BCLP in the children; p=0.007 for UCLP and p=0.949 for BCLP in the adults.

**Conclusions:** In the present study, using 3D CT and software, the required graft volume for alveolar grafting and the maximum bone graft volume that could be harvested from the mandibular symphysis were calculated precisely. The results demonstrated that the mandibular symphysis region provided an adequate bone volume for alveolar grafting in children with a unilateral alveolar cleft and in adults with both unilateral and bilateral alveolar clefts. However, differences in the volumes between individuals make it difficult to standardize these results. Therefore, we believe that it would be more accurate to perform individual preoperative evaluations using this technique. This report suggests that to perform individual preoperative evaluations such as required bone graft volume for grafting and maximum bone graft volume that can be harvested from the mandibular symphysis using 3D-CT and software is useful.

**SS-006****Finite Element Evaluation of Open Reduction of Mandibular Fractures With or Without Tooth Extraction**

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The mandible due to its position and prominence is the second most commonly fractured part of the maxillofacial skeleton. The location and pattern of the fractures are determined by the physical properties of the causing agent, the patient's age and the presence of teeth. Approximately, more than half of the mandibular fractures occur in the teeth bearing region. Consequently, every fracture in the dentate areas has the potential to involve teeth in the fracture line.

We know that long tooth root and unerupted tooth represent line relatively weakness, the question is in which situation treatment of fracture line would be better biomechanically with or without tooth extraction.

The purpose of this study is to analyze the biomechanical behaviours and consequences of open reduction internal fixation of mandible parasymphysis, corpus and angulus fractures with or without tooth extraction, which is on the fracture line, in relation to load transferring, biomechanical stability and stress, strain and tension distribution over the fixation materials and bone, through experimental finite element analysis models.

### SS-007

### **The Use of Sequentially VEGF and BMP-2 Releasing Biodegradable Scaffolds in Rabbit Mandibular Defects**

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**Objective:** Tissue engineering applications are used widely for reconstruction of bone defects. The aim of this study is to investigate the effect of recombinant human bone morphogenetic protein 2 (rhBMP-2) and vascular endothelial growth factor (rhVEGF165) released from polylactic acid-polyethylene glycol (PLLA-PEG) scaffolds on mandibular bone defects.

**Methods:** In this experimental study fifty four New Zealand rabbits were used. The animals were analyzed in 4 groups as the control group (Group I: PLLA-PEG scaffold), Group II (PLLA-PEG scaffold + rhBMP-2 application), Group III (PLLA-PEG scaffold + VEGF165 application), and Group IV (PLLA-PEG scaffold + rhBMP-2, and VEGF165 applications). Animals were sacrificed at postoperative 4 and 8 weeks, and histopathological, and immunohistochemical assessments were performed.

**Results:** Scaffold containing rhBMP-2 and VEGF165 represented the best outcomes in conjunction with the increased remodeling of the new bone. The highest bone volume was observed in rhBMP-2 containing groups, the highest vessel volume was observed in VEGF165 containing groups, but

**Conclusion:** Use of polymer tissue scaffolds that release rhVEGF165 and rhBMP-2 is a promising treatment alternative in the field of reconstructive surgery.



**SS-008****Comparison of the Effect of Postoperative Care Agents on Human Gingival Fibroblasts**

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**Objectives:** Postoperative care agents have been used in oral surgery practice. Mouth rinse solution is one of the popular postoperative care methods for oral and maxillofacial surgery; it helps to prevent expected complications. There are many postoperative care solutions like chlorhexidine, octenidine dihydrochloride, povidone iodine, meridol and hyaluronic acid. The aim of this study is to compare the effects of actually used postoperative care agents (Chlorhexidine, octenidine dihydrochloride and hyaluronic acid) on human gingival fibroblast's (HGF) viability, proliferation, apoptosis and migration.

**Materials-Methods:** Human gingival tissue of healthy patient who subjected to gingivectomy was taken for cell culture. HGFs were obtained in DMEM supplemented with 10% fetal bovine serum, 100 IU/ml penicillin and streptomycin. After cell culturing, Chlorhexidine (CHX), octenidine dihydrochloride (Octenidol®) and hyaluronic acid (Gengigel®) solutions were applied for 30 seconds on HGFs. A methyl thiazolyl tetrazolium (MTT) assay was performed to monitor cytotoxicity at the time of 24., 48., and 72. hours. Apoptotic, live and dead cells were detected by using a fluorescein conjugated annexin V kit by using Muse EasyCyte flow cytometer at the time of 24., 48., and 72. hours. For migration assay, HGFs were grown to 95% confluency in 6 well plates. A scratch wound was made in all plates for detecting the wound healing. An image of the scratch wound was taken at the beginning, at 24 h, and 48 h. The data were analyzed statistically and a level of significance of 5% was adopted ( $p < 0.05$ ).

**Results:** HGFs had spindle like shape morphology and expressed CD 90 and CD 26 on the cell surface. Living and total apoptotic HGFs' percentages were compared depended on the time. Evaluation of total apoptotic cells' percentage at 24 h, CHX showed statistically lower percentage than OCT ( $p=0.049$ ), Gengigel ( $p=0.049$ ) and control group ( $p=0.049$ ). At 48 h, Gengigel showed statistically lower percentage than CHX ( $p=0.049$ ), and control group ( $p=0.049$ ). CHX and Octenidol may prevent early apoptosis at 24hour. However, there was no statistically significant difference between all solutions ( $p > 0.05$ ) at 72 h. All mouth rinses found statistically significant higher cytotoxicity than control ( $p > 0.05$ ). However there was no difference between mouth rinses groups for proliferation rate according to MTT assay. Octenidol showed statistically worse effect of HGFs migration than CHX and Gengigel at 24.hour ( $p_{OK}=0.01$ ,  $p_{OG}=0.01$ ). CHX and Gengigel maintained the migration ability of HGFs than Octenidol at 48.hour ( $p_{OK}=0.01$ ,  $p_{OG}=0.00$ ) and CHX and Gengigel have similar effect according to wound healing assay.

**Conclusion:** All the mouth rinses (CHX, OCT and Gengigel) that studied have similar effects on cell behavior such as viability, apoptosis and cell proliferation. However Octenidol showed statistically negative effect for HGFs migration ability than CHX and Gengigel.

**SS-009****Anesthetic Approach to Niemann-Pick Type C Patient for Dental Treatment**

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**Introduction:** Niemann-Pick disease is an autosomal recessive lipid storage disease, characterized with differentiating levels of hepatosplenomegaly and progressive psychomotor retardation. This disease exhibiting heterogenic symptoms has 4 subtypes; Type A and B in which sphingomyelinase values are normal and Type C and D in which sphingomyelinase values are close to normal values. Disease emerges with early childhood ataxia and progressive dementia and the most evident features are early childhood hepatosplenomegaly, vertical supranuclear ophthalmoplegia, ataxia, dysarthria, mental-motor retardation and seizures. In this report we present our anesthetic approach to an uncooperative 3-year-old female patient with hepatosplenomegaly, mental-motor retardation, developmental retardation, deglutition and speech deficiency and ataxia and seizures who admitted to our clinic in collaboration with our pedodontics clinic for preventive dentistry practice.

**Case:** Preventive measures such as topical fluoride application to teeth and incision of the excess mucosa over the left upper and lower primary second molars in order to obtain eruption was planned and patient was consulted to our department for the surgical procedure and the need of sufficient mouth opening under anesthesia for the uncooperative patient. Mallampati was Grade 3, sternomental and thyromental distances were short. After 6 hours of fasting, sedoanalgesia with monitored anesthesia care was planned because of the presence of difficult intubation criteria. Patient was taken to the operation room without premedication, was monitored and oxygenized 2lt/min. Five minutes after EMLA® application to the left hand dorsal side, peripheral intravenous cannulation was obtained. Metoclopramide, in order to minimize vomiting possibility by increasing lower esophagus sphincter pressure and Ranitidine, in order to neutralize stomach acid was administered. Afterwards, 0,5mg Midazolam and 20mg Ketamine was administered intravenously. After termination of the 20 minute operation, patient was observed for 10 minutes, and sent to service while hemodynamically stabile.

**Conclusion:** Our choice of anesthetic in addition to local infiltration anesthesia was Ketamine, which has analgesic, hypnotic and amnestic effects but do not repress pharyngeal and laryngeal reflexes and does not evoke cardiovascular and respiratory depression. The potential effect of Ketamine of elevating convulsion threshold was prevented with Midazolam. We are in the opinion that this method, which did not require additional anesthetic methods, was free of side-effects and safe for the 3 year old child with Niemann-Pick Type C disease.

**SS-010****Efficacy of Ice Pack Therapy in Impacted Third Molar Surgery: A Randomized Controlled Clinical Trial**

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**Objective:** Recommending facial ice pack therapy is routine for oral and maxillofacial surgeons after any intervention. Despite the frequent use of cooling, there is an ongoing debate over the efficacy of this application. The aim of the present study is to evaluate the effects of ice pack therapy on post-operative swelling, trismus and pain perception after impacted third molar surgery.

**Methods:** This study included 18 patients and bilateral third molars with same classification were extracted with a uniform surgical technic. At the end of the first operation cold application was not recommended to patient and second surgery was performed at least three weeks prior to first surgery to provide full recovery of the consequences of previous operation. After the second surgery, cold application for 24 hours was added to post-operative recommendation list and a cold thermo-gel that enwrapped with a disposable towel was given to patients. Facial swelling was evaluated by measuring the distances between labial commissure and the tragus pre-operatively and on the third and seventh day following the surgery. Restriction of mouth opening was assessed by measuring the inter-incisal distances and pain perception was assessed via 10 cm long visual analogue scale at the same times.

**Results:** Mean VAS scores of cold application group were slightly lower than control group at the both third and seventh post-operative days. Although differences between groups was not statistically significant ( $p=0.06$ ). At the seventh post-operative day inter-incisal distance in the cold application group was still greater than control group. However, no statistically significant differences were found between the two groups concerning the trismus at the seventh post-operative day ( $p=0.259$ ). Swelling was lower in the cold application group at the both third and seventh postoperative day but the differences was not statistically significant ( $p=0.926$ ).

**Conclusions:** According to results in the present study, ice pack therapy following impacted third molar surgery has no effect on post-operative swelling, trismus and pain perception. To prevent ice therapy related complications surgeon may not recommend to apply ice after impacted third molar surgery. However, more sophisticated cooling therapies may have effects on deep layers of tissues, so further researches needed for clarification of this issue

**SS-011****Effect of Laser and Ozone Therapy on Oral Mucositis**

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Oral mucositis (OM) is a common complication for patients taking chemotherapeutic or radiotherapy which induces severe pain and limits fundamental life behaviors such as eating, drinking and talking. Low level Laser Therapy (LLLT) and Ozone may be useful for accelerating wound healing on oral mucositis. In our oral presentation, 24 rats were divided into 3 groups as control, ozone and laser groups. All animals were given 5-Flourouracil intraperitonally and trauma to the cheek pouch with a needle for occurring OM. After that, laser and ozone therapy were given to studies group while no any treatment were given to control group. Then all groups were sacrificed and sent to immunohistochemical evaluation for fibroblast growth factor (bFGF), transforming growth factor (TGF-b) and platelet-derived growth factor (PDGF). As a result, LLLT and ozone therapy are effective on treatment of OM. However, LLLT is seems to be more effective than ozone therapy.

**SS-012****Surgical Preparation of Atrophic Jaws of Edentulous Patients for Implant Supported Dental Prosthesis**

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**Objective:** Fully edentulous and atrophic jaws require more than just a classic denture for adequate oral function. The desired treatment can be achieved with dental implants and bridges but the bone required to support implants is not always available. Complex surgical procedures are sometimes necessary for rehabilitation of edentulous patients. The purpose of this work is to describe the surgical treatment of a patient with atrophic jaws with iliac grafting and mandibular nerve lateralization technique.

**Methods:** The presence of unfavorable jaw bone anatomy, which may result from different reasons such as congenital defects, trauma, periodontal disease, oncological resection or senile atrophy is not an absolute contraindication to dental implant placement. In fact, with the advances occurring in implant dentistry, new surgical techniques have been developed in order to allow the rehabilitation of atrophic jaws with the implant supported prosthetics. Autogenous bone harvesting is considered gold standard for sinus augmentation for atrophic maxilla. For atrophic mandible in which the residual bone is regressed to almost inferior alveolar nerve canal, nerve repositioning techniques must be considered. Fully edentulous 58 years old male patient with severely atrophic jaws, was referred to our clinic for dental implant placement and fixed prosthesis. Our patient underwent general anesthesia for the procedures. We harvested iliac graft for maxillary sinus augmentation of both sides. Grafts were secured with miniscrews. Also both inferior alveolar nerves were repositioned by the removal of the outer cortex of the lateral wall of the mandible from the foramen mentalis with piezosurgery. Simultaneous implants were placed on the mandible.

**Results:** Mandibular nerve lateralization with simultaneous implant placement in the mandible and autologous iliac grafting with sinus elevation technique prior to implant placement showed promising results.

**Conclusions:** Classical dentures are not the only solution for fully edentulous patients. Although the osseointegration and healing periods are still considered long and rapid graft resorption is an issue which requires further research.





## SS-013

**The Effect of Local Rosuvastatin Administration on Calvarial Bone Defects**

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The purpose of this study is to investigate the potential of the local administration of different doses of rosuvastatin (RSV) on autogenous grafted critical-sized cortical bone defects. Twenty-four rats were divided into three groups: Group C (control), Group RSV-0.1 and Group RSV-1. A 5-mm diameter critical-size defect was created in the calvarium of each animal. In Group C, the defect was filled by autogenous graft and sterile saline treated absorbable collagen sponge (ACS) was applied. Defects in the experimental groups (groups RSV-0.1 and RSV-1) were grafted by autogenous graft and ACS with saline solution contains 0.1 and 1 mg RSV were applied. All animals were euthanized at 28 days postoperative. Stereologic and micro-ct analyses were performed. New bone area (NBA) and connective tissue volumes were measured. Stereologic analysis showed that the difference between group RSV-1 with a mean bone formation of  $1,79 \pm 0.06 \text{ mm}^3$  and groups RSV-0.1 and control (C) was statistically significant ( $p \leq 0.05$ ) with a mean bone formation of  $1.29 \pm 0.28 \text{ mm}^3$  and  $1.08 \pm 0.12 \text{ mm}^3$  respectively. Connective tissue volume was also significantly higher in 1 mg RSV applicated group. Micro-ct results were similar with stereologic analyses. Local administered 1 mg RSV enhances bone regeneration in critical size calvarial rat defects filled with autogenous graft.

### SS-014

### **Histological Evaluation of The Effect of Concentrated Growth Factor (CGF) on Bone Healing**

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**Objectives:** The aim of this study was to evaluate the effects of concentrated growth factors (CGF) on the healing of peri-implant bone defects in an animal model.

**Methods:** Twenty 4-month-old New Zealand White rabbits, each with an average weight of 3.5 kg, were used in this blinded, prospective, experimental study. Bone defects were created monocortically in the tibia of each rabbit using a trephine burr with a diameter of 8 mm. The implants were installed in each hole. The rabbits were divided into four groups: (1) in group E, the defect was left empty; (2) in group CGF, the defects were filled only with CGF; (3) in group AB, the defects were filled with autogenous bone; and (4) in group AB+CGF; the defects were filled with autogenous bone and CGF. The animals were euthanised at week 8 post-implantation. All implants from the 20 animals were fixed in 10% formalin and evaluated histomorphometrically.

**Results:** The mean defect area was highest in group E and lowest in group CGF+AB ( $p < 0.05$ ). The area of the defect differed significantly between groups AB and CGF+AB ( $p < .05$ ), but not between groups CGF and E. Implant-to-bone contact was lowest in group E. In the defect areas of groups CGF, AB and CGF+AB, a small amount of new bone formed around the implant.

**Conclusions:** In this animal model of a peri-implant bone defect, restoration was achieved using a combination of autogenous bone and CGF. Further studies are needed to determine the behaviour of CGF when used in the repair of bone defects in humans.

### SS-015

### The Effects of Panax Ginseng and Pantoprazole on Bone Defect Healing

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**Objective:** The purpose of this study was to make a biochemical and histopathological evaluation of the effects of pantoprazole (PZL), panax ginseng tablets (PG), and a combination of both materials on the repair process of a surgical defect in rat tibia, as well as to verify possible alterations in osteoprotegerin (OPG), receptor activator of nuclear factor  $\kappa$ B ligand (RANKL) and the OPG/RANKL ratio

**Design:** A total of 56 male Wistar albino rats were randomly divided into four groups: Control group, rats were not treated with any medication; PZL group, rats were treated with PZL 20 mg/kg daily by oral gavage; PG group, rats were treated with PG 20 mg/kg daily by oral gavage; PZL-PG group, rats were treated both PZL 20 mg/kg and PG 20 mg/kg daily by oral gavage.

**Results:** There were statistically significant difference between PG group and control group on days 7 and 21 ( $p < 0.05$ ). PZL group had significantly lower healing scores than the control group on day 7. Similar serum OPG levels were observed among the groups ( $p > 0.05$ ). Higher OPG/RANKL ratio and lower serum RANKL levels were found for PG group on days 7 and 21 compared with the control group ( $p < 0.05$ ).

**Conclusion:** It can be concluded that PG affected bone healing positively through elevated OPG/RANKL levels, whereas PZL had detrimental effect on tibial defect healing. However, PZL impaired bone defect healing in the earlier stage.

**SS-016****Effectiveness of Amoxicillin/Clavulanic Acid in Reducing Postoperative Infection and Complications After Mandibular Third Molar Surgery**

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**Objectives:** The purpose of this retrospective study was to evaluate effectiveness of amoxicillin/clavulanic acid in reducing postoperative infection and complications after mandibular third molar surgery

**Methods:** A totally of 92 patients complying with criteria were included in this study. The patients were divided into three groups. Group A: Amoxicillin group; The patients that were received 500 mg amoxicillin trihydrate orally every 8 h for 5 days postoperatively. Group AC: Amoxicillin/clavulanic acid group; The patients that used 500 mg amoxicillin trihydrate plus 125 mg potassium clavulanate orally every 8 h for 5 days postoperatively. Group NT: No treatment group. The patients who did not use any antibiotics postoperatively.

**Results:** Statistical analyses of the postoperative results showed that there were no significant differences among the groups regarding pain, swelling, trismus and quality of life scores ( $p > 0.05$ ). No statistically significant difference was found among the groups regarding alveolar osteitis, infection and postoperative mouth opening.

**Conclusion:** Infection or alveolar osteitis was not detected in the group of amoxicillin/clavulanic acid. The reduction of pain was faster for patients in the same group. However, these results were not statistically significant. This study demonstrated that routine amoxicillin/clavulanic acid prescription should not be indicated in all third molar surgeries.

**SS-017****The Outcomes of Ablative Treatment of Actinic and Seborrhic Keratosis with CO<sub>2</sub> and Erbium Laser**

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Actinic keratosis (AK) are cutaneous lesions formed as a result of photoaging process of skin from sun exposure. Fitzpatrick skin types I&II are more susceptible for AK. The estimated malignancy incidence is approximately 15%.

Seborrhic keratosis (SK) is unsightly cutaneous lesions commonly seen in patients of advanced age, sun exposure may play a role.

The medical management includes 5- fluorouracil gel, 3% diclofenac and topical and systemic vitamin D. The surgical management includes liquid N<sub>2</sub> therapy, surgical excision, electrosurgery

with curettage and laser ablation.

We have retrospectively reviewed our experiences on treatment of AK lesions using CO<sub>2</sub> and Erbium lasers in ten years.

Patients and Methods: Laser ablation treatment was performed to 123 lesions of 80 patients. CO<sub>2</sub> laser ablation was performed to 53 AK and 3 SK lesions. 55 AK and 12 SK lesions were ablated with Erbium laser.

Results: There was no recurrences of SK in both groups. AK was recurred at 3 months in 5 patients (2 of Erbium, 3 of CO<sub>2</sub>). These patients underwent to formal excision and were separated as AK with severe dysplasia and invasive BCC.

Conclusion: Laser ablation is an effective surgical treatment for AK and SKs. Both laser types used in our study are effective and fast to remove the AK and SK. However, Erbium laser has less complications.



**SS-018****Effect of Piezoelectric Surgery on Bone Regeneration Following Distraction Osteogenesis of the Rabbit Mandible**

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**Objective:** The aim of this study is to compare the bone healing in the distraction gap following the osteotomy performed with piezoelectric and conventional devices for the distraction osteogenesis in the rabbit mandibles.

**Methods:** Twelve rabbits were randomly divided into 2 groups; 6 for piezo electric device and 6 for rotary instruments. After 3 days of latency period, distraction was started at a rate of 1 mm per day for 10 days. All the animals were sacrificed after 4 weeks of consolidation phase for histological and histomorphological evaluation.

**Results:** Histological evaluation revealed thick trabecular bone formation in all of the specimens. Inflammation scores were chronic minimal. The mean percentages of the bone area in distraction gap are 62% in group P and 57% in group K. However, the difference between two groups was not statistically significant ( $p>0,05$ ).

**Conclusions:** Our results revealed a slight increase in bone formation in the distraction gap in piezo-osteotomy groups histologically though not statistically supported. However, there is still need for more histological studies with larger sample sizes evaluating the bone structure following piezo-osteotomies.



**SS-019****Clinical And Histopathological Features of Peripheral Odontogenic Fibromas**

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**Objective:** The aim of the study is to investigate the peripheral odontogenic fibroma (POF) cases sent to the department of pathology for diagnosis, to determine the clinical characteristics such as gender, age and localization, together with the histopathological features of the lesions, and to compare and discuss the findings with those of literature.

**Methods:** The study involved 155 POF cases in the archives of the department of pathology between the years 2008-2012. Gender and age of the patients, localization of the lesions, clinical diagnoses and histopathological findings were evaluated comparatively.

**Results:** Gender, age and localization data of the cases were found to be consistent with those of literature. Variable degrees of epithelial hyperplasia, inflammation, vascularization, mesenchymal cells and collagen fibres were observed in the slides of 50 cases investigated histopathologically. Epithelial ulceration was found in 62% of the lesions and this finding was in correlation with increased inflammation and vascularization. In 79% of the cases, the lesions revealed hard tissue formation in the form of bone, cementum or calcification. Only bone formation, or bone and cementum formation together were seen more frequently than cementum formation alone. Besides hard tissue formation, the observation of osteoclastic giant cells around bone formation and squamous or primitive odontogenic epithelium cells within the lesion, show the histopathological similarity of peripheral odontogenic fibromas and cemento-ossifying fibromas of the jaw bones.

**Conclusions:** Peripheral odontogenic fibromas should be distinguished from other reactive mucosal lesions, because correct treatment and frequent follow up is required, due to their high recurrence rate.

**SS-020****General vs. Local Anesthesia In Temporomandibular Joint Arthrocentesis**

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**Objective:** The aim of this study is to evaluate and compare the effectiveness of Temporomandibular joint arthrocentesis under general and local anesthesia

**Methods:** This clinical study included 32 patients whose records were completely fulfilled and diagnosed anterior disc displacement without reduction based on MRI findings. Patients were divided into two groups. Group A was consisted of patients who received local anesthesia during procedure and group B was consisted of patients who received general anesthesia for procedure.

For comparing the relative effectiveness of arthrocentesis under local anesthesia and general anesthesia, post-surgical edema, pain, inter-incisal opening, operation time and ease of operation were evaluated.

All the results were statistically analyzed performed using SPSS for Windows.

**Results:** Statistically significant improvement was seen in both groups for all parameters. Observations revealed that a shorter arthrocentesis time, and easier operation could be achieved with arthrocentesis under general anesthesia. However no statistical difference was noted between the groups regarding other parameters.

**Conclusion:** The results of this study showed that arthrocentesis under general anesthesia is comfortable for both patients and doctors yet, due to disadvantages like; cost, complication risks related to anesthetics and increased operation time, patient selection is crucial to achieve higher success rates.

### SS-021

## Effects of Single High-Dose Systemic D-Vitamin Injection to Early Healing Period of Condylar Fracture in Osteoporotic Rats

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**Objective:** The aim of this study is to evaluate the potential of single high dose systemic vitamin D on early healing period of the condylar fracture site of osteoporotic rats and to compare with control group by histological and immunohistochemical results.

**Material-Methods:** Sixteen adult female Wistar rats (250-300gr) underwent bilateral ovariectomy and 6 weeks after ovariectomy osteoporotic rats model were obtained. At preauricular region extraoral incision was made directly below the zygomatic arch followed by blunt dissection through the masseter muscle, and the condylar process was exposed. An experimental unilateral medially rotated condylar fracture model was used to investigate new bone formation. Fracture was achieved using a mosquito forceps, and the condylar fragment was deviated medially. Test subjects were divided into two groups. Group C (Control); which were injected intraperitoneally sterile saline solution and Group D; which were injected intraperitoneally single high dose systemic D vitamin (50.000 U.I./kg). All animals were euthanized at 28th day. New bone formation was evaluated by histological and immunohistochemical (BMP2, TGF $\beta$  and osteopontin) analysis.

**Results:** Histologic analysis showed that Group D had significantly more new bone formation at 4 weeks compared with control group. According to immunohistochemical analyses, TGF $\beta$  and osteopontin levels were significantly higher in Group D. BMP2 levels showed no statistically difference between groups.

**Conclusion:** According results of this studies, single high dose vitamin D injection immediately after surgery increases TGF $\beta$  and osteopontin levels and enhances new bone formation at early healing period of the condylar fracture of osteoporotic rats.

**SS-022****'Surgery Only' Approach for Correction of Dentofacial Anomalies**

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**Objective:** This study aims to compare the stability of Surgery Only Approach (SOA) with Orthodontics First Approach (OFA).

**Patients And Methods:** 10 patients (4 males, 6 females) were operated as Surgery Only Approach and 10 (5 males, 5 females) were operated by Orthodontics First Approach. The mean age of the patients was 33.2 years in SOA and 30.4 years in OFA group. The cephalometric radiographs were taken before (T0) and six months after surgery (T2). Amount of maxillary advancement was measured in operating room (T1). Each cephalometric graph was analyzed by using a cephalometric analysis software program and the advancement amount (T1) was compared with the changes (T0-T2).

**Results:** A statistically significant difference was found in SOA group between (T1) and (T0-T2) but there was no significant difference in OFA group. There was a significant difference between the two groups ( $p=0.016$ ). SOA group showed higher differences between (T1) and (T0-T2) within the time than that of OFA group.

**Conclusion:** Although the stability of SOA was less than SFA, the amount of surgical movement was larger in SOA group. This may mean that SOA is a stable orthognathic procedure.

### SS-023

## The Effect of Decompression in the Histologic Diagnosis of Cystic Jaw Lesions: A Preliminary Report

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**Objective:** A review of the current literature reveals controversial findings regarding the management of large cystic lesions of the jaw. Unlike the well-established goals of treatment that are to remove the lesion as completely as possible and to avoid complications, debate remains if decompression of these lesions should be performed prior to definitive surgery. Furthermore, it has not yet been ascertained if decompression changes the final pathology of cystic lesions of the jaw as only a few studies have previously addressed the effects of decompression on the histological diagnosis. The aim of this study is to retrospectively report the histopathologic outcomes in a cohort of patients treated with decompression followed by enucleation and curettage for cystic jaw lesions.

**Methods:** Ten patients who underwent decompression followed by definitive surgery for cystic jaw lesions were included in the study. All patients had radiolucent lesions of considerable size, in close proximity to vital anatomic structures such as the inferior alveolar nerve, maxillary sinus or the nasal floor. An incisional biopsy of the lesion was performed prior to insertion of a decompression tube. Patients were followed up until adequate shrinkage of the lesion was confirmed on clinical and radiologic evaluations. Enucleation and curettage was carried out as the definitive treatment. Histopathologic findings obtained after the definitive treatment were compared to those reported for the initial incisional biopsies, taking demographic and anatomic variables into consideration.

**Results:** Ten cystic lesions were treated in a group of five male and five female patients. The mean age was 37,3 years (range; 16 to 66 yrs). The histopathological diagnoses for initial biopsies were reported as follows: five dentigerous cysts (50 %), three keratocystic odontogenic tumors (30%) and two radicular cysts (20%). The mean duration of decompression was 127,4 days, ranging from 70 to 188 days. Post-decompression histologic diagnosis at the time of definitive surgical treatment was consistent with the initial diagnosis for nine lesions (90%). Only one lesion, which was initially reported as a dentigerous cyst was later diagnosed as a unicystic ameloblastoma. Age and gender were not found to significantly affect the outcome, while alteration in diagnosis was observed in a young female patient with a lesion located in the posterior maxilla.

**Conclusions:** The findings of this preliminary study indicate that decompression rarely leads to change in histopathologic nature of cystic jaw lesions, and pre- and post-decompression findings are commonly consistent. Alterations in histopathologic diagnoses are more likely to be encountered in younger patients and when managing lesions located in the maxilla. Within the limitations of this preliminary study, we recommend cystic lesions of jaws be treated according to the initial diagnosis, which is often consistent with the final diagnosis.



**SS-024****Platelet-Rich Fibrin in Dentoalveolar Surgical Procedure**

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PRF is an autologous leukocyte-platelet-rich fibrin matrix with tetramolecular structure composed of cytokines, platelets and stem cells. It serves as a biodegradable scaffold which supports the expansion of microvascularization along with the ability of guiding epithelial cell to migrate to its surface. PRF is a healing biomaterial with a great potential for bone and soft tissue regeneration, without any inflammatory reactions and it is used alone or in combination with bone grafts, promoting hemostasis, bone growth, and maturation. It accelerates wound healing. When mixed with bone graft, it acts as a biological connector, which attracts stem cell, favors the migration of osteoprogenitor cells to the center of the graft, and provides a neo-angiogenesis. In this presentation, five patients with various indications and their treatment with PRF is reviewed. Detailed information about the preparation of PRF and surgical technique are presented.

**SS-025****Intraoral Vertical Ramus Osteotomy for The Treatment of Asymmetric Mandible: A Case Report**

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Skeletal Class III malocclusion can be corrected by bimaxillary surgery in case orthodontic camouflage treatment is limited or facial asymmetry is present.

SSRO and IVRO are the most commonly used osteotomy procedures to correct mandibular prognathism or mandibular asymmetry.

SSRO and IVRO have several advantages and disadvantages. Owing to wider contact bony surface of SSRO, the rigid fixation is easier and the postoperative stabilization is faster than IVRO which requires a longer period of maxillomandibular fixation (MMF) and use of intermaxillary elastics to prevent relapse. Nevertheless, bony interference, which causes displacement of the condyle and the proximal segment of the short side when mandible is rotated, is less in IVRO. Several methods have been described to draw advantages from these techniques.

Unilateral intraoral vertical ramus osteotomy (UIVRO) on the short side combined with contralateral SSRO was advised as an alternative technique to restrict the displacements caused by SSRO in cases of severe rotational asymmetry.

This report describes a case which has facial asymmetry with mandibular deviation and maxillary retrognathia with a canted occlusal plane. The case was treated with unilateral IVRO and SSRO on the shifted side of mandible. The aim of this report is to evaluate the efficiency of this combined operative procedure in mandibular asymmetry.

**SS-026****The Effects of Ozone Therapy on Genotoxic Damage and Wound Healing in Bisphosphonates Applied Human Fibroblast Cell Cultures**

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**Objective:** Medication-related osteonecrosis of the jaws (MRONJ) is an extremely therapy resistant osteomyelitis-like disease involving the jaw bones especially following bisphosphonate treatment. Bisphosphonates accumulate in bone in concentrations sufficient to be directly toxic to the oral epithelium. This would result in diminished soft-tissue healing. There are no universally accepted treatment protocols for management of resistant bone exposure in jaw osteonecrosis. Current therapeutic options are inadequate for the prevention and treatment of MRONJ. The aim of this study was to investigate effects of ozone gas therapy on wound healing in bisphosphonate applied human fibroblasts.

**Material-Methods:** Human gingival fibroblasts obtained from patients were cultured. Cytotoxic concentrations (IC50) of bisphosphonates (Pamidronate, alendronate and zoledronate) were determined by MTT test. Ozone gas was applied to the cells after bisphosphonate applications. Genotoxic damages were evaluated by Comet assay and wound healing was determined by in vitro scratch assay.

**Results:** Pamidronate, alendronate and zoledronate applications caused genotoxic damage. Ozone treatment decreased the genotoxic damage and increased the wound healing rates for all drugs doses ( $p < 0.05$ ).

**Conclusion:** The ozone gas application decreased the genotoxic effects of bisphosphonates on fibroblast. The preliminary in vitro results of the current study showed that, ozone gas therapy' effect on wound healing is dependent on chemical's characteristics and application time. Further detailed molecular studies are needed to clarify action mechanism of ozone.

**SS-027****Surgically Facilitated Orthodontic Treatment**

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Corticotomy and Selective alveolar decortifications (SAD) have been proposed as effective and safe methods to shorten orthodontic treatment duration in adolescent and adult patients.

In this presentation patients (n=5) who referred to Oral and Maxillofacial Surgery department with a complaint of maxillary deficiency (n=2) and insufficient tooth anchorage (n=3) were reviewed. Indications, contraindications, advantages, disadvantages, surgical procedure and post operative results were described in details.

Although effective and highly predictable, corticotomy assisted orthodontic treatment is quite invasive because it requires extensive flap elevation and osseous surgery. This technique proved to be effective in shortening treatment time, but it is difficult for most orthodontic patients to accept because of its postoperative discomfort and risk of complications.

**SS-028****A New Approach for Horizontal Augmentation of Posterior Maxilla Using Ridge Split Technique**

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**Objective:** Over the years, several modifications have been made to the alveolar bone augmentation techniques to achieve sufficient bone for implant placement. On this basis, the aim of this presentation is to propose a new augmentation technique and investigate the efficacy of this method on maxillary healing prior to the implant treatment. Indications, surgical approach and results described in details.

**Methods:** Routine panoramic radiographs and CBCT were taken for clinical and preoperative evaluation. Under local anesthesia the ridge split technique was applied to the posterior maxilla, bone block harvested from ipsilateral mandibular ramus and horizontal augmentation procedure was performed. 3 implants were placed at the fourth month of the surgery. Prosthetic rehabilitation was completed after the osseointegration of the implants.

**Results:** No major complications were observed at the donor and recipient sites and the healing was uneventful. Radiological control was undertaken periodically, 3 months and one year after prosthetic loading. No significant bone loss around implants were seen and success criteria for endosteal implants in one year follow-up were achieved.

**Conclusion:** This surgical technique avoids the need of titanium osteosynthesis screws for fixing all the bone segments. It has the advantage of press-fit insertion, which leads to contact healing and also no foreign body reaction because of disusing nonautogenous materials.



### SS-029

## Three Dimensional Evaluation of the Effects of Surgically Assisted Rapid Maxillary Expansion on Facial Soft Tissue

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**Objective:** Surgically assisted rapid maxillary expansion (SARME) is used for the treatment of transverse maxillary deficiency in skeletally mature patients. Few studies have reported on the overlying soft tissue changes after SARME. The aim of this study was to evaluate effects of SARME on the facial soft tissue using 3D stereophotogrammetry.

**Methods:** This prospective study included 21 patients with transverse maxillary deficiency. Patients mean age was 18,9 (range 17,15-29,22). A tooth borne distractor was used for expansion. Facial 3D photographs were acquired before treatment (T0), the day of the termination of expansion (T1) and at least 4 months after transverse palatal distraction with a 3D stereophotogrammetry camera (3dMDface System; 3dMD LLC, Atlanta, GA, USA). Facial anthropometric measurements (11 linear, 6 angular and 4 volumetric) were performed using the 3dMD software (3dMD Vultus® software Version 2.3.0.2, 3dMD, Atlanta, GA, USA). To evaluate soft tissue changes repeated measures analysis of variance (ANOVA) was used. Composite facial averages were performed for each treatment period with the same 3dMD software. The three facial averages, were superimposed and compared with colour histograms.

**Results:** Facial changes after SARME in the expansion period (T0-T1) showed significant increases in ( $p < 0.05$ ) facial width ( $p = 0.021$ ), mouth width, nasal width, nasal base width, nasolabial angle, upper lip angle, lower lip angle, midface and upper lip volume ( $p = 0.000$ ). The significant decrease was observed in anterior facial height ( $p = 0.044$ ), nasal volume ( $p = 0.004$ ), nazofrontal angle, soft tissue convexity angle, total facial convexity angle ( $p = 0.000$ ). In the retention period (T1-T2), increases in nazofrontal angle ( $p = 0.001$ ), nasal volume ( $p = 0.009$ ), soft tissue convexity angle, total facial convexity angle ( $p = 0.000$ ), and decreases in the nasal width ( $p = 0.010$ ), nasal base width, nasolabial angle ( $p = 0.000$ ) were statistically significant. In the follow up period (T0-T2) significant increase was observed in facial width ( $p = 0.004$ ), midface and upper lip volume ( $p = 0.015$ ), mouth width, nasal width, nasal base width, upper lip angle, lower lip angle ( $p = 0.000$ ) and the measurement observed significant decrease was anterior facial height ( $p = 0.016$ ), nasofrontal angle ( $p = 0.013$ ), total facial convexity angle ( $p = 0.005$ ). Changes in the upper facial height, lower facial height, upper lip height, lower lip height, philtrum height, nasal height, upper lip volume and lower lip volume were occurred but these were not statistically significant ( $p > 0.050$ ) in time-depended evaluation. The average faces showed distinct differences in the paranasal regions.

**Conclusion:** Three dimensional imaging is useful to evaluate changes in facial soft tissue after SARME. SARME leads to evident changes in the facial soft tissues. These changes are more prominent nasomaxillary complex.

**SS-030****Treatment of Temporomandibular Joint Ankylosis by Gap Arthroplasty; Case Series**

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**Objective:** The aim of this retrospective study was to evaluate the effectiveness of gap arthroplasty procedure for treating patients with TMJ ankylosis.

**Material and Methods:** A total of ten patients with unilateral or bilateral TMJ ankylosis were treated in 2014/2015. six female and four male patients, treated by gap arthroplasty with or without coronoidotomy (unilaterally or bilaterally). The improvement in mouth opening was measured after gap arthroplasty. Outcome variables were maximum mouth opening, deviation on opening, lateral and protrusive movements and facial nerve dysfunction. Other perioperative complications were recorded.

**Results:** Mean age of patients were 17,7 years. Mean preoperative maximal incisal opening was 10,5 mm, immediate postoperatively maximal incisal opening was 34,9 mm. postoperatively, mean follow up was (14,5 month) maximal incisal opening was 32,7 mm. Temporary temporal facial nerve paralysis occurred in three patients which dissappeared after short period totally.

**Conclusion:** Although GAP arthroplasty is a classic method when compared with new ones as TMJ prosthesis, it has a comparable result with acceptable intraoperative and postoperative outcomes. As long term results of TMJ prosthesis is unknown especially in young ages (as some subject of this presentation), gap arthroplasty should be considered as a classic TMJ ankylosis treatment with sufficient mouth opening, low recurrence rate and no long term facial nerve complication

### SS-031

#### **Evaluation of Treatment Outcome and Periodontal Status After Third Molar Surgery with the Use of Autologous Platelet-Rich Fibrin**

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**Objective:** The aim of this study is to evaluate the effect of using platelet-rich fibrin (PRF) on edema, pain, trismus and periodontal status of second molar after third molar extraction.

**Materials-Methods:** Patients who referred to Department of Oral and Maxillofacial Surgery, Akdeniz University Faculty of Dentistry with complaint of third molars were evaluated for this study. 17 consented patients ( 7 male, 10 female) who had bilateral symmetrical mandibular third molars were included. In one side of patients, following standart surgical extraction protocol, PRF was placed into extraction sockets and primary closure was performed. The other side was operated without PRF placement 15 days later from first surgery. Post operative pain, edema, trismus and periodontal examination of second molars were evaluated. Facial measurements were performed using anatomic landmarks of patients for edema assessment. 0-10cm VAS (visual analog scale) was used for pain assessment. Periodontal examination was made. The parameters mentioned above were evaluated on post operative 2. days, 7. days and 3. months.

**Results:** In PRF group, pain, edema and trismus were found significantly less compared to the control group. Post operative 3. months controls showed that periodontal status of second molars were found better in PRF group. The results were statistically significant.

**Conclusion:** According to the results of this study, we conclude that PRF application after surgical removal of third molar may decrease post operative pain, edema and trismus, and also may be beneficial for periodontal health of second molar.

**SS-032****The Evaluation of The Diagnostic Value of Mean Platelet Volume (MPV) in Patients with Isolated Mandible Fractures**

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**Objective:** In this study we aimed to research the prognostic value of mean platelet volume (MPV) in trauma patients who had isolated mandible fractures.

**Methods:** Between 2009-2014,186 trauma patients, who were admitted to emergency service with trauma and had mandible fracture in their initial diagnosis were found from database and evaluated retrospectively. 50 patients were found suitable for inclusion criterias as study group and 44 healthy individuals who referred to the family medicine clinic for a check up were included in the control group.Age, sex, white blood cell (WBC) and MPV values were compared between groups, The type and localization of mandibular fractures with these parameters were also examined.

**Results:** The distribution of fractures in mandible as localization were seen as 42% corpus,27% condyle and ramus,angulus symphysis localizations respectively.Mean MPV value of study group ( $7,864 \pm 0,129$ ) were found lower than control group's ( $8,476 \pm 0,161$ ). Mean WBC value of study group ( $12,530 \pm 0,653$ ) was found higher than control group's ( $7,360 \pm 0,297$ ). Mean WBC and MPV levels were found significantly different between groups. ( $p < 0,01$ )

**Conclusions:** Although MPV and WBC levels were not significantly different in isolated fracture localizations of mandible, both MPV and WBC levels were seen at higher levels patients with multiple fracture sites than in patients with one fractured site.

### SS-033

### **Is The Preparation and Application of PRF Safe in Standard Local Operating Room Air?: A Prospective Study**

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**Objective:** Platelet rich fibrin (PRF) which is currently considered as a new generation of platelet concentrate was first used in 2001 by Choukroun et al. Owing to easy preparation, not requiring chemical manipulation of the blood, releasing growth factors at least seven days and stimulating the environment for wound healing in a significant amount of time. PRF becomes very popular in dental clinics and dental operating rooms due to its easy access. It is recommended to produce blood products such as plasma rich platelet (PRP) in high efficiency particulate air (HEPA) filtered clean rooms or closed systems to avoid bacterial contamination and surgical site infection (SSI). Although common usage of the PRF due to easy preparation, biological advantages and low cost, the microbiologic condition of PRF is not clear in the literature. The aim of this study was to assess the microbiologic contamination incidence of PRF which is an autologous biomaterial that prepared under standard room air.

**Materials and Methods:** PRF was prepared through a single centrifugation of blood for a period of 12 minutes at 2700 rpm from 10 patients under standard room air. PRF was prepared as a membrane and serum was collected as an aqueous part on a sterile operation table. First samples were taken at the beginning of surgery (t1), and second samples were taken after 30 min (t2) in a standard room air. 1 ml of aqueous sample was injected into BacT/ALERT culture bottles and 3D Microbial Detection System was used to detect bacterial contamination. Therewithal PRF membrane samples were taken with sterile swabs and these were cultured on Tryptic Soy Agar (TSA) plates before being incubated at 37 °C for 24-48 h. E. coli (ATCC 25922) was used as a positive control for TSA dishes and sterile saline was used as negative control.

**Results:** Neither aqueous samples obtained at the t1 and t2 nor PRF membrane samples results were positive for microorganisms both with BacT/ALERT® 3D Microbial Detection System and TSA culture plates. The rate of bacterial contamination during surgery was 0%.

**Discussion:** SSI is an annoying situation that increases the morbidity and severity of illness and also increases costs. The microorganisms that involved in SSI have 4 routes: 1) patient skin, 2) Surgeon or other personnel, 3) airborne microbes and 4) instruments used in surgery. Improvement in pharmaceutical industry, especially solutions used for asepsis and antisepsis and sterilization technology, contamination can be prevented easily. HEPA filter system is an expensive solution for preventing the SSI in dental offices. Nevertheless, due to results of this study, autologous biomaterial such as PRF may be prepared in a standard room air safely.



**SS-034****Use of Binaural Beats for Reducing Preoperative Anxiety in Oral Surgery**

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**Objective:** Binaural beats (BB) is an auditory illusion that can be obtained by presenting two different sound frequencies through each ear. We aimed to evaluate the effectiveness of BB in reducing preoperative anxiety in oral surgery.

**Method:** We included 60 patients who would undergo impacted third molar surgeries. They were randomly divided into experimental (n=30, 20 females and 10 males, mean age 24.2±4.07) and control (n=30, 22 females and 8 males, mean age 28±9.9) groups. Before the operations, all patients were fully informed about the surgery and their anxiety levels were recorded on a visual analogue scale (VAS). Then, dental anesthetics were done and the patients waited for 10 minutes. During this period, the patients in the experimental group were asked to listen BB by using stereo earphones (200 Hz for left ear and 209.3 Hz for right ear). The frequencies were produced by a software (Brain Waves Binaural Beats, MynioTech Apps, Chapeco, Santa Catarina, Brazil) running on a mobile device (Samsung Galaxy S II, Samsung Electronics Co. Ltd., South Korea). In the control group, no special treatment was made. Then, in both groups, anxiety levels were recorded again and proceeded with the surgery in usual way. Statistical analyses were done with SigmaPlot 12.5 (Systat Software Inc., San Jose, CA).

**Results:** While the anxiety level was not changed in the control group ( $p>0.05$ ), the experimental group showed statistically significant decrease in anxiety levels ( $p < 0.05$ ).

**Conclusion:** BB technology may be useful in reducing preoperative anxiety in oral surgery.

## SS-035

### **Presentation and Management of Patients with Trigeminal Nerve Injuries Due to Periapical Infections**

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**Objective:** Periapical infections have been implicated in sensory impairments of the mandibular branch of the trigeminal nerve. This study aimed to assess a cohort of patients who presented to the Oral Surgery Department with trigeminal nerve injuries (TNI's) caused by periapical infections, and the factors associated with the resolution of their injuries.

**Methods:** This was a retrospective study on 22 patients with TNI's caused by periapical infections, of which 21 had inferior alveolar nerve injuries (IANI's) and one patient had a lingual nerve injury (LNI). All demographics and data regarding the periapical infections and TNI's were analysed using Microsoft Excel and SPSS. Factors associated with resolution of the TNI's were assessed using Student's t-Tests and one-way ANOVA, where  $P < .05$  indicated statistical significance.

**Results:** The patient cohort consisted of 16 females and 6 males, with a mean age of 47.0 years (range 26 to 78 years; Standard deviation [S.D.] of 11.6). The most commonly affected teeth were the first molars (11 patients; 50%), with an average duration of the periapical infection being 3.5 months (range from 1 week to 15 months [S.D. 4.5]). Symptoms during these infections and their subsequent nerve injuries included numbness, pain and/or paresthesia of the lip and/or chin areas, which in most cases affected their eating amongst other functional problems. The LNI patient experienced intermittent numbness, altered taste and paresthesia of the tongue.

The average duration of the IANI's was 11.9 months (ranging from 1.5 months to 3 years; S.D. 9.8). The patient with LNI presented with an injury of only 2 months duration, which was too early to tell if the LNI would be permanent. IANI's resolved completely for five patients mostly within 4 months, although one patient had complete resolution after a year. The five patients who had complete resolution of their IANI's endured a significantly less duration of their IANI of an average 4 months compared to those nine patients who did not have any resolution of their injury after an average of 19.2 months ( $P = 0.006$ ). Patients who showed complete resolution of their NI's predominately had their affected teeth extracted, antibiotics with root canal treatments or cognitive behavioural therapy (CBT). Prednisolone was also beneficial in one case.

**Conclusion:** Patients who have TNI's caused by periapical infections can suffer significantly from a mixture of numbness, pain and paresthesia that affect their daily functions. Chances of resolution of these injuries may be maximized upon early diagnosis, treatments with antibiotics and possibly extractions of the affected teeth provided that they are not high-risk teeth in close distance with the inferior alveolar nerve.

**SS-036****Evaluation of the Effects of Low Level Laser Therapy on Edema, Trismus and Pain After Third Molar Surgery**

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**Objective:** Impacted tooth surgery is a routine procedure in maxillofacial surgery practice. Pain, swelling and limitation of mouth opening occur depending on this treatment. There are some applications to reduce these postoperative complications for patient comfort. Purpose of this study is to evaluate the effects of low level laser therapy on edema, trismus and pain after third molar surgery.

**Methods:** This study is a prospective, randomized, split-mouth clinical trial and included 32 patients. Patients have similar position lower third molars bilaterally. After completion of the suture in the experimental side, the laser was applied 1 minute intraorally and extraoral laser was applied just after the surgery, 24, 48, and 72 hours post-surgically. The pain was assessed with the help of visual analogue scale (VAS). Trismus and facial swelling was assessed preoperatively and postoperatively at 24, 48 and 72 hours. Facial swelling was assessed both with tape measuring method and 3dMD imaging system.

**Results:** according to 3dMD imaging system and tape measuring method there are statistically significant differences between the laser and control groups on edema. Mouth opening and pain assessment show significant differences between days but there is no statistically significant difference between the groups.

**Conclusion:** In conclusion, the results of this study show that the intraoral and extraoral use of LLLT did not significantly reduce the pain and trismus. However, LLLT reduces swelling in laser group. It is necessary to consider new extensive studies to evaluate the pain and trismus.

**SS-037****Evaluation The Efficacy of Different Concentrations of Dextrose Prolotherapy in Temporomandibular Joint Hypermobility Treatment**

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**Objective:** Dextrose prolotherapy is one of the modern conservative techniques used in treatment of temporomandibular joint hypermobility. Different concentrations of dextrose have been used and reported as a proliferant solution, but it still unclear whether any concentration has superiority over the others. The aim of our study was to compare and evaluate the efficacy of different concentrations of dextrose prolotherapy for the treatment of temporomandibular joint (TMJ) hypermobility.

**Patients and Methods:** A prospective, randomized clinical trial included patients with subluxation or dislocation was performed. The study comprised 30 patients (22 females, 8 males; age range 18-44 years). Patients were randomly divided into three equal sized groups treated with 10%, 20% and % 30 dextrose solutions respectively. Patients in all groups received injections into four different areas of each TMJ in four sessions at monthly intervals. Visual analogue scale (VAS) of TMJ pain, maximum mouth opening (MMO), clicking sound, and frequency of luxations (number of locking episodes) were recorded preoperatively at each appointment just before the injection procedure and postoperatively after 1 month of last injection. The collected data were then statistically analyzed, considering  $P < 0.05$  as a statistically significant value.

**Results:** Each group showed postoperatively significant improvement in TMJ pain, significant decrease in both MMO and clicking sound. Besides that, TMJ locking was not observed in any patient during the follow-up period. There were no statistically significant differences throughout the study intervals between the groups.

**Conclusion:** All concentrations of dextrose used as a proliferant were efficient in improvement of clinical symptoms related to painful TMJ hypermobility. There is no superiority of any concentration of dextrose over the others in prolotherapy.

**SS-038****Comparison the Efficacy of Laser and LED  
Phototherapies in the Management of Pain and Facial  
Swelling After Impacted Lower Third Molar Surgery**

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**Objectives:** This study aimed to evaluate the effectiveness of low level laser (LLL) and light emitting diode (LED) application in the management of pain and facial swelling after impacted lower third molar (ILTM) extraction.

**Methods:** 72 patients with bilateral ILTMs in a symmetric position were included in the study. The sample consisted of 48 female, 24 male and mean age was 20.38 (range: 18-25). Patients were randomized into 3 groups (LLL group, LED group, LLL-LED group), each with 24 patients. A split-mouth study in which patients were their own controls conducted. In the LLL group, 810-nm diode laser was applied extraorally at the insertion point of the masseter muscle immediately after surgery, at postoperative 2th and 7th day. Parameters used for LLL were: continuous mode, at 300 mW (0.3 W) for a total of 40 s (0.3 Wx40 s= 12 J). In the LED group, an Osseo-Pulse® LED device with a wavelength of 618-nm and 20-mW/cm<sup>2</sup> output power irradiation, was applied extraorally in a such manner that the LED arrays will correspond to extraction socket. The control groups received only routine management. In the 3rd group, LLL was applied to one side, and LED phototherapy applied to the other side immediately after surgery, at postoperative 2th and 7th day. Pain was assessed for the postoperative 2th, 4th and 6th hours after surgery and for the next 6 days. Facial swelling was evaluated for the postoperative 2th and 7th days.

**Results:** In the LLL group, the pain intensity in the experimental side was lower than the control side on the postoperative 6th day. In the LED group, pain intensity in the experimental side was lower on the postoperative 4th hour, 3th, 4th, 5th and 6th days, compared with the control side. The differences were statistically significant both for two groups ( $p<0.05$ ). In the LLL-LED group, pain levels between two sides were not statistically significant ( $p>0.05$ ). In relation to facial swelling, in the LLL group, tragus-pogonion distance between experimental and control side on the postoperative 2th and 7th day; in the LED group tragus-commissura distance on the postoperative 2th and 7th day and tragus-pogonion distance on the postoperative 7th day showed significant difference between experimental and control side ( $p<0.05$ ). In the LLL-LED group, external cantus of the eye-angle of the mandible distance between LLL and LED side demonstrated significant difference on the postoperative 7th day.

**Conclusion:** Present study demonstrated that both LLL and LED phototherapy are useful in reduction of postoperative pain after ILTM surgery, but LED phototherapy is more effective on postoperative pain. Although both the application of LLL and LED therapy resulted in a decrease in postoperative swelling, LED is more effective when compared to LLL phototherapy on the 7th day. As a conclusion, LED phototherapy may be an alternative to LLL to prevent postoperative complications after ILTM surgery, but further studies are required.





## SS-039

### **A New Prosthetic - Surgical Technique for Reconstruction of Naso - Orbito - Cranial Defect by Using Tridimensional Prototypic Models**

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Oral and maxillofacial surgery is a kind of complicated surgery because it will affect patient's face and appearance, so the operation planning and postoperative effects prediction have higher requirements. Surgery was performed to reconstruct maxillofacial defects and deformities, however postoperative normal appearance and symmetrical structure of the facial region is often depends on capability of surgical reconstruction considering the stable and intricate characteristic of local tissues and underlying anatomy.

Medical models or bio-models represent portion of human anatomy at a scale of 1: 1 obtained from three dimensional (3D) imaging (3D CT scan or MRI) stereolithography and rapid prototyping was introduced In the 1980's to define new techniques for the manufacturing of physical models based on CAD – CAM system. Prototyping allow one to reproduce tridimensional anatomical model which give the surgeons a realistic impression of malformed complex anatomical structures before a surgical intervention. In recent years prototyping revolutionized maxillo facial reconstruction procedures due to its precisional anatomic contouring, reduction of operating time and increasing patient's motivation.

We report a case with severe old naso-orbito- zigomatico - cranial deformity due to motorcycle accident that it was reconstructed with tridimensional custom-made titanium mesh implant using a new prosthetic - surgical technique and stereolytographic and prototypic models. The case and operating techniques will present by illustrative slides.

**SS-040****Objective Assessment of Occlusal Splint Usage Time via Wearable Micro-Sensors and Comparison of Treatment Efficiency for Treatment of TMD Patients**

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**Objective:** According to the quality scale of randomized control trials defined by antczak et al. it is imperative to ensure patient cooperation to the treatment. However patient cooperation to occlusal splint therapy is rarely evaluated in clinical trials. Questionnaires are used for subjective evaluation. To the best of our knowledge there are no studies existing in the literature to objectively assess wear time of occlusal splints for the treatment of temporomandibular diseases. Therefore the purpose of this prospective clinical trial is to evaluate usage time of occlusal splints fabricated for the treatment of patients with myofascial pain accompanied with restricted mandibular movements.

**Methods:** 32 patients referred to our department with myofascial pain along with restricted mouth opening recruited to our trial. Patients received 2mm thick full coverage acrylic occlusal splints with embedded micro-sensors. Patients were asked to wear their appliances at least 8 hours a day every night. Patients were followed up for 3 months. Maximum interincisal mouth-opening, lateral excursions and protrusive movements of mandible along with pain assessment by VAS were recorded at each visit.

**Results:** After 3 months of follow up the mean usage time was 3.78 hours/day; less than half of the recommended duration. Mandibular movements were improved in all groups. No statistical differences were observed among patients with different usage time. Pain scores also improved in all groups. Highest improvement was seen in group with sufficient usage time. However the difference was not statistically significant.

**Conclusion:** Findings of this study suggest a low patient adherence to occlusal splint therapy. Occlusal splint usage appears to have a minimal impact on mandibular movements. Higher usage time of splints may result better pain scores.

**SS-041****Pediatric Mandibular Reconstruction with Vascularized  
Fibula Flap in A War Victim:  
A Case Report**

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The free fibular flap is well accepted as the gold standart for reconstruction of large mandibular defects. Pediatric patients require a different approach than adults because of skeletal morphology and growing process. The pediatric craniofacial skeleton continues to grow, reconstruction is more challenging, and the long-term results can be different from those of adult patients. Bomb injuries are devastating in nature causing major tissue defect that demands composite reconstruction of soft and hard tissues. We present mandibular reconstruction of 12 years old boy for midline mandibular defect with free microvascular fibular bone flap.

**SS-042****Reconstruction of Edentulous Mandible Corpus Fracture:  
A Case Report**

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The advancing age, residual ridge resorption and decreased vascularity impairs the bone strength, predisposing it to fracture during traumatic event and even to spontaneous fracture. Fractures of mandibula are common in elderly persons. Treating edentulous mandibular fracture is difficult in elderly patients due to compromised medical condition of the patient and various contraindications for the surgical approach. The complication rate of infection or malunion is higher compared to fractures in younger, dentulous patients. In this case, patient was 82 years old female. She had felt in the bathroom. Radiological examination shows the unilateral mandibular corpus fracture. Patient underwent open reduction internal fixation (ORIF) surgery.

**SS-043****Preliminary Report: Split-Crest Technique for Mandibula Ridge Augmentation**

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Partial edentulous alveolar ridges less than 3.5 mm wide require horizontal bone augmentation for the placement of dental implants. The aim of this preliminary report is evaluate clinical and radiological outcomes of the alveolar ridge split augmentation technique of mandibula.

Ten mandibular edentulous area included in this study. Crestal and two vertical osteotomy done by ultrasonic devices and apical side of segment were weakened via corticotomy. Two segments separated from each other with an expender. Buccal segment was not totally mobilized and still attached to the mandibula on apical side. Buccal segment fixed in this new position with a mini screw. The gap between two segments were filled with bovine bone graft (Bego Oss Mebios GmbH Gütersrasse 2 64807 Dieburg, GERMANY). Than suturation of incision was performed by a 4/0 silk. In all cases healing period was uneventful. After six month of healing period control DVT taken. In all areas mean value 7,5-8 mm buccolingual distance was measured. Than impants placed for implant supported fixed prosthesis. This surgical procedure proved to be an effective and predictable way to gain horizontal distance for implant placement in mandibula.



**SS-044****Clinic Evaluation of Efficacy of Transcortical Anesthesia  
for Extraction of Impacted Mandibular Third Molars**

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*University of Selçuk*

**Objective:** The aim of this study is to compare pain levels during anesthesia and efficacy of Quicksleeper intraosseous (IO) injection system and conventional inferior alveolar nerve block (IANB) in impacted mandibular third molars surgery.

**Materials-Methods:** This prospective randomized clinical trial included thirty patients (16 female, 14 male) with bilateral symmetrical impacted mandibular third molars. Thirty subjects randomly received IO injection or conventional IANB at 2 successive appointments. A split-mouth design is adopted in which each patient undergoes treatment of a tooth with one of the techniques, and treatment of the homologous contralateral tooth with the other technique. The subjects received 1.8 mL 2% articaine. We recorded demographic datas, pain levels during anesthesia application, tooth extractions and mouth opening on postoperative first, third and seventh days. Patient pain assesment ratings were recorded on 100 mm VAS. Latency and duration of the anesthetic effect, complications, operation duration and tooth extraction difficulty index are also analysed in this study. Duration of anesthetic effect were considered with electrical pulp test and probing soft tissue with explorer.

**Results:** 30 patients whose ages ranging between 18 to 35 with the mean age 23 were included in this study. IO injection caused statistically significantly less pain with less soft tissue numbness and quick onset of anesthesia as well as lingual anesthesia with single needle penetration. 19 out of 30 patients (%63) preferred transcortical anesthesia. Mouth opening on postoperative first and third days was significantly better in intraosseos injection.( $p=0,013$ )

**Conclusion:** Although IO injection is a useful technique commonly used during various treatments in dentistry, there are complications such as the duration of injection takes longer than conventional techniques, there is a possibility of obstruction at the needle tip, and, the duration of the anesthetic effect is inadequate for prolonged surgical procedures.

**SS-045****Direct Sinus Lifting with Platelet-Rich Fibrin (PRF) and Simultaneous Dental Implant Placement without Grafting**

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**Objective:** The restoration of edentulous posterior maxilla with dental implants is challenging due to a deficient posterior alveolar ridge both vertically and horizontally. Recently, an interest in the graftless bone augmentation procedures had revived which the space left beneath the elevated Schneiderian membrane is filled with blood clot in order to produce bone formation. The aim of this study is to evaluate clinical and radiological outcomes of direct sinus lifting with platelet-rich fibrin (PRF) and simultaneous implant placement without grafting.

**Materials-Methods:** Study group comprised 8 patients in whom 9 maxillary sinus floor augmentations were performed. In all patients, direct sinus lifting with lateral window removal was performed following simultaneous implant placement. 4 tubes of prepared PRF was placed into the sinus cavity. In addition to preoperative and postoperative panoramic radiograms; cone beam computed tomography (CBCT) was taken 6 months later postoperatively.

**Results:** 10 implants in lengths of 10 to 12 mm were placed in vertically compromised maxillary posterior areas. Comparisons of preoperative and postoperative radiograms showed complete bone healing around the implants.

**Conclusion:** The study showed that sinus lifting with only PRF and simultaneous dental implant placement is safe and predictable method when primary stability is achieved.

**SS-046****Alveolar Distraction Osteogenesis by HYCON™ Device**

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**Objective:** Multiple reconstructive and regenerative methods have been applied for the augmentation of alveolar bone. Alveolar distraction osteogenesis (DO) is a surgical technique used to repair bone defects by means of the gradual, controlled movement of a bone segment, across the defect by tension-stress effect. DO has some advantages over autogenous bone grafting; it provides reduced patient trauma and faster patient recovery. There is no limit on the amount of produced bone and soft tissue manipulation is easier.

**Methods:** A 14 years old girl presented in this case with trauma that had caused the upper right central incisor to avulse and had also caused an alveolar bone defect in maxilla anterior region. The treatment was performed with the combination of segmental osteotomies, tooth movement and distraction osteogenesis; based on the closing of the alveolar defect with mesial movement of the segment along an orthodontic archwire with double HYCON™ Device.

**Results:** Newbone and attached gingiva was generated interdentally in conjunction with orthodontic treatment. Segment distraction along the arch wire allowed us to establish a normal arch shape.

**Conclusion:** Intraoral and ekstraoral devices such as lead system, track plus system, resorbable plate and screws, multidimensional screw systems, 3i distraction device, ACE, veriplant etc. are used for alveolar distraction osteogenesis. In the presented case; we transported the bone block with HYCON™ Device, which is a fabricated device and used for space closing with sliding mechanics, along with movement of the teeth with a secondary device placed on the orthodontics brackets. Alveolar distraction osteogenesis was achieved by using a space closure device and good results have been obtained.

**SS-047****Is It A Real Necessity to Interrupt Antiplatelet Drugs Before Dental Extraction**

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**Objective:** The purpose of this prospective study was to investigate the incidence of bleeding after dental extraction without stopping antiplatelet therapy.

**Methods:** 195 patients were included in this study. Patients were divided into three groups: a study group comprising 65 patients on antiplatelet therapy (aspirin, clopidogrel, dual therapy), first control group comprising 65 patients who were not receiving any antiplatelet or anticoagulant therapy and underwent dental extractions and the second control group comprising 65 patients on antiplatelet therapy who were advised to stop anti-platelet therapy for 7 to 10 days, or for at least 3 days, prior to dental extraction in order to avoid the risk of bleeding.

**Results:** The incidence of postoperative bleeding was higher in the study than in the control groups, and also in the dual antiplatelet subgroup than in the single antiplatelet subgroups but these differences were not significant. Postoperative bleeding was managed successfully by resuturing and repacking with gelfoam impregnated with tranexamic acid powder and in 14 control patients undergoing extraction of impacted teeth with flap elevation.

**Conclusion:** These findings indicate that there is no need to interrupt antiplatelet drugs before dental extraction.

**SS-048****Effects of Low Laser Therapy in Terms of Pain, Trismus and Edema with Comparision of Stereophotogrammetry and Linear Measuring Method after Surgical Assisted Rapid Maxillary Expansion**

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**Objective:** In oral and maxillofacial surgery low-level laser therapy used for different situations such as treatment of surgical and non-surgical tooth extraction, orthognathic surgery, nerve disturbance, acceleration of wound healing and reduction of edema. Surgically assisted rapid maxillary expansion is controlled tissue expansion with distraction osteogenesis and surgical procedure that includes osteotomy priform aperture to pterygomaxillary suture and midpalatal osteotomy. Patients undergo surgically assisted rapid maxillary expansion have painful process after surgery. Level of edema and restricted mouth opening can be disturbing. Patients life quality reduce.

**Materials-Methods:** 16 patients took place in the study. Subjects divided into 2 groups. In the study diode laser device with a continuous wavelength of 940 nm was aplied with 3X1 cm handpiece extraorally from 3 points along the osteotomy line in 1.-2.-3. days. Laser energy was applied at 100 mW for a total of 360 s, 120 s and 4j/cm<sup>2</sup> for each point. Preoperatively and 1, 2, 5 days after surgery linear measurements, face scans and mouth opening values recorded. Pain scores(VAS) recorded at 1,2,3,4,5,6,12. hours and 2,3,4,5. days.

**Results:** Postoperative swelling and mouth opening were less in laser grup at all times without statistically significant differences. Pain scores was less in laser grup for the first 4 days but statistically significant differences was only in the first 4 hours. Contrary to the statistics, clinically we think that there is a difference between groups because there was a big difference between the groups in point of needs for analgesics. In laser grup no patient needed to take analgesic but in control grup patients took total of 28 times along 4 days. Another porpuse of this study was to compare two different measurement methods, their realiability and correlation. Recently stereophotogrammetry has been thought the best choice for evaluate facial swelling. Interestingly in this study we found very strong correlation between volumetric analysis and linear measuring values. Low laser therapy has benefical effects on trismus an edema without statistically significant differences but in clinically effects on pain is interesting Because of very strong correlation between 2 methods and applicability of linear measuring, linear measuring can be used for evaluate facial swelling safely.



### SS-049

### **Iloprost: May be a New Therapy Option for MRONJ Patients?**

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<sup>2</sup>Pathology Department, Veterinary Faculty, Mehmet Akif University, Burdur

**Objective:** Osteonecrosis is thought to be seen because of zoledronic acid, which is one of the most effective agents in terms of medical related osteonecrosis of the jaws, because it can negatively affect wound healing in soft and hard tissue. Iloprost is an effective medicament, for its angiogenesis-promoting effect in terms of having healing properties in avascular necrosis and bone marrow edema. The aim of this study is evaluation of trying to resolve the distorting effect of zoledronate after tooth extraction, using the positive effects of iloprost agent on angiogenesis, as histopathologic and immunohistochemical. The most important aim of this thesis is to detect an effective and a therapeutic agent in MRONJ cases mess with doctors in dental and jaw surgery.

**Material-Method:** In this study, 88 male Sprague-Dawley rats were used. Rats were divided into a total of 8 groups, 4 as the main group and 2 as subgroup. While main groups were divided into 4 as biphosphonates and iloprost given, biphosphonates and iloprost not given (as control groups), only the biphosphonate and only iloprost given, subgroups were divided by their sacrifice time as postoperative 15th and 45th day. Biphosphonates given groups took Zomebon® 4mg/5ml for 6 weeks. In 5th of this 6 weeks, their right lower molar teeth were extracted under general anesthesia. The teeth of all groups were extracted in the same manner as 5th week also. In the groups treated with iloprost, 1, 2, 3, 4 and 5 days after tooth extraction iloprost (ilomedin®) was given intraperitoneally. After 15 and 45 days after tooth extraction, subgroups were sacrificed and their mandible samples were examined in terms of wound healing as immunohistochemically. For statistical analysis, Mann-Whitney U, Kruskal Wallis and Bonferroni-Dunn tests were used.

**Results:** In hematoxylin and eosin stain, after 15 days later, completely gingival healing on the tooth extraction side was seen. 45 days for wound healing after tooth extraction was adequate. Compared to other groups maximum new bone formation was seen in ILO group. In ZOL group delayed soft tissue healing and bone formation was seen in immunohistologically. Contrary to the literature in ZOL group, osteopontin (OPN) values was high and ZOL didn't affect to osteocalcin (OC) values. Both ZOL and ILO didn't affect fibronectin (FBN) and collagen IV. Iloprost lowered OPN values unlike they are expected to increase. In bone formation areas OC values was high

**Conclusion:** Although not statistically significant, ZOL delays wound healing histopathologically in soft and hard tissues and ILO is likely to be effective in the treatment of MRONJ in which negative effects of ZOL immunohistochemically on ALP, OC, VEGF can be resolved with ILO.

**SS-050****BiteStrip Analysis of The Effect of Fluoxetine And Paroxetine on Sleep Bruxism**

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**Objective:** The relationship between sleep bruxism (SB) and selective serotonin reuptake inhibitors (SSRIs) is still under debate because of the lack of well-designed objective studies. The current study investigates possible effects of SSRIs, fluoxetine, and paroxetine on SB in patients with anxiety and depression.

**Materials-Methods:** Thirty users of SSRIs for treatment of depression or anxiety were enrolled in the study. After clinical and anamnestic examination, 15 fluoxetine and 15 paroxetine users were included. For an objective evaluation of SB, a single-use disposable home screening device, BiteStrip, was used prior to the first SSRI intake and was repeated on the 7th and 15th days. Patients' self-reported data also were obtained for assessment of patient awareness.

**Results:** BiteStrip scores were significantly higher on the 7th and 15th days than the first measurement ( $p < 0.01$ ). There was an increase in 26 (86.6 %) patients' bruxism scores on the 7th day. There was also an increase in 27 (90%) patients' bruxism scores on the 15th day. But according to patients' self-reports, only 6 patients had an awareness that bruxism symptoms were initiated or exacerbated 15 days after starting fluoxetine or paroxetine.

**Conclusion:** Fluoxetine and paroxetine, SSRIs used for the treatment of anxiety and depression, may initiate or aggravate SB. Clinicians should consider that SSRIs may be the cause of SB when SSRI users are referred to dental clinics for SB symptoms. As there is a shortage of researches on this subject, further studies are necessary to confirm the existence of SSRI-induced SB.

**SS-051****Botulinum Toxin Type A in Management of Oromandibular Dystonia Associated with Hypoxic-ischaemic Brain Injury**

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**Objective:** Hypoxic-ischaemic brain injury is common and usually due to cardiac arrest or profound hypotension. The clinical pattern and outcome depend on the severity of the initial insult. The prognosis is extremely poor and small majority of patients survive to hospital discharge, and often even then with severe neurological or cognitive deficits that disturb the life conditions. Disorder of central motor processing such as hypoxic ischemic brain injury can result with dystonia. Dystonia is a neurologic disorder characterized by abnormal, involuntary movements that can also affect jaw mechanics leading to a forceful contraction of jaw muscles and damage of surrounding tissues. The aim of this case to report a new indication for botox injection to maxillofacial area for patient with hypoxic ischemic brain injury to develop quality of life.

**Patient and Method:** 42-years old male patient was referred to us for severe bruxism and ulcerations in the floor of mouth, lips, and tongue related with parafunctional movements with extraordinary muscle power by intensive care unit of department of Reanimation. Patient was nibbling his lower lip, sucking his tongue, grinding and clenching of the teeth. Patient has hypoxic ischemic brain injury due to cardiac arrest. Patient was also confined to bed and has contractures in his skeletal muscles. Anterior teeth extractions were planned to prevent lip injury. Bite plate was also made to decrease force that was transmitted to temporomandibular joint and teeth. However these preventive procedures were not enough for the patient. Then botulinum toxin injection was given to masseter, temporal and mentalis muscles. Subsequently botulinum toxin injections to same muscles have been carried on at 5 months intervals.

**Results:** Patient is under follow-up period. Ulcerations recovered and parafunctional movements disappeared. Patient was consulted to orthopedics for botulinum toxin injections to skeletal muscle contractions. Patient and patient's kindreds got benefit from botulinum enjections.

**Conclusion:** Localized injections of botulinum toxin have been used successfully in the management masticatory muscle dystonias. This procedure constitute safe and useful method for prevent parafunctional movements associated with hypoxic ischemic brain injury.

### SS-052

## Experimental Comparison of Fixation Methods in Sagittal Split Ramus Osteotomy

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**Objective:** Sagittal split ramus osteotomy (SSRO) is a method widely used for correction of acquired or congenital deformities of the mandible such as hypoplasia, hyperplasia or asymmetry. Fixation of the segments after the osteotomy directly affects the success of the process. Although there are many clinical and experimental research on this subject ideal fixation method has not yet been determined.

**Method:** In this study, six different fixation methods applied after SSRO were compared experimentally. SSRO was performed to 36 fresh sheep hemimandible and advanced 5 mm. In first group six of the hemimandibles were fixed with three bicortical screws in inverted L pattern. Group two was fixed with three bicortical screws in linear pattern. Group three was fixed with two bicortical screws in linear pattern. Group four was fixed with 6 monocortical screws and a miniplate specially designed for SSRO. Group five was fixed with 8 monocortical screws and sagittal split sliding plate. Group six was fixed with 6 monocortical screws and standart miniplates. All samples coupled to a servohydraulic testing unit using a fixation device and linear force has been applied until the permanent deformation is formed.

**Results:** Similar displacement values have been seen in the first two groups fixed with different configurations of three bicortical screws. While three groups were fixed with miniplates have similar displacement values, displacement values of group fixed with 2 bicortical screws were high compared to other bicortical screw groups. For linear force applied up to 70 N, 3 mm or higher displacement values were not seen in any fixation system.

**Conclusion:** According to the results of this study, all systems are suitable for clinic usage. However, intermaxillary fixation or functional elastics may be needed for monocortical screw-plate fixation systems during the healing period of the hard tissue.

**SS-053****Piezosurgical Eminectomy for the Treatment of Recurrent Temporomandibular Joint Dislocation**

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**Objective:** Temporomandibular joint (TMJ) dislocation is excessive anterior translation of mandibular condyle out of its normal range of movement and away from glenoid fossa. It is a distressing situation that may occur as a result of daily activities such as yawning and laughing, or during events that require keeping the mouth open for a long time. Treatments for recurrent TMJ dislocation can be divided into conservative or surgical. This presentation aims to illustrate the use of piezosurgery in eminectomy for treatment of recurrent TMJ dislocation.

**Case:** A 24-year-old male patient was referred to our clinic due to recurrent TMJ dislocation for 1 year. The patient reported that dislocation occurred 4-5 times in a day and it took 10-15 minutes to relocate TMJ on his own. Diagnosis of bilateral TMJ dislocation was confirmed by clinical and radiological examinations. Bilateral eminectomy using piezosurgery device was performed by preauricular approach for treatment. Post-operative course was uneventful during 1-year of follow-up.

**Conclusion:** Eminectomy is considered to be the "gold standard" for treatment of recurrent TMJ dislocation. The use of piezosurgery device allows safe and less invasive approach.



**SS-054****The Use of i-PRF in Secondary Alveolar Cleft Repair**

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**Objective:** Secondary alveolar cleft repair is an essential procedure required to induce eruption of permanent teeth, stabilize the maxillary dental arch, and permit orthodontic treatment and implant placement. Autogenous bone is the graft material of choice. However, it has well documented disadvantages including unavoidable bone resorption and donor site morbidity. To improve the biologic characteristics of other bone graft substitutes, autologous blood products rich in platelets and growth factors are developed. Platelet-rich fibrin (PRF) is a second generation platelet concentrate. Recently; a number of subgroups of PRF were developed including leukocyte-, advanced-, titanium-, and injectable-PRF (L-PRF, A-PRF, T-PRF, and i-PRF respectively). The aim of this presentation is to illustrate the use of i-PRF incorporation with xenogenic bone substitute for secondary alveolar cleft repair.

**Case:** A 10-year-old male patient with unilateral alveolar cleft underwent bone reconstruction using xenograft combined with i-PRF. Six months of follow-up was performed by means of clinical and radiographic investigations. CBCT examination showed that the patient had sufficient bone height, bone bridging and bone quality compared to unaffected site.

**Conclusion:** In our experience; the use of i-PRF makes bone substitute sticky, and this form keeps the particles of bone substitutes together and prevents micro-motions, thus preventing bone resorption and improving bone regeneration. In addition, the material expresses active growth factors enhancing soft and bone tissue healing.

**SS-055****Maxillary Distraction Osteogenesis in Cleft Patient:  
A Case Series**

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**Objective:** Maxillary retrognathia is a common problem in patients with cleft lip and palate. Maxillary intraoral distraction osteogenesis (DO) is described as a safe and efficient treatment procedure in patients with cleft lip and palate. Over 10 mm surgical advancement of the maxilla usually required for normalizing facial proportions, occlusion, jaw relations and increase the psychosocial well-being of the cleft lip and palate patients. The treatment protocol of 6 cleft lip and palate patients with maxillary retrognathia was presented in this case series.

**Method:** Following the maxillary orthodontic expansion, secondary alveolar grafting and/ or management of oronasal fistulas intraoral maxillary distraction was performed in all included patients under general anesthesia. Preoperative simulation of the Le fort I osteotomy and adaptation of the maxillary distractors were obtained on stereolytographic cranium models. The total amount of maxillary advancement was between 15-25 mm. A single unit acrylic occlusal splint was cemented to the maxilla and worked as a guide during the entire activation and consolidation period. At the end of the consolidation period rigid internal fixation plates were placed.

**Results:** All patients had sufficient maxillary advancement for ideal occlusal and skeletal relationships by intraoral maxillary distraction osteogenesis. Alveolar clefts became narrower and a good dental arch form was obtained via acrylic occlusal splint guidance. Preoperative adaptation of maxillary distractors on stereolytographic models diminished the total operation time.

**Conclusion:** The advancement of the maxilla by distraction osteogenesis results in a gradual formation of bone in the line of osteotomy by the use of traction and enhanced the treatment outcome in patients with cleft lip and palate.

**SS-056****Investigation of the Efficiency of Laser and Platelet Rich Fibrin (PRF) on Rabbit Inferior Alveolar Nerve Injuries**

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**Objective:** The purpose of this study was to evaluate the efficiency of low-level laser treatment (LLLT) and Platelet Rich Fibrin (PRF) on rabbit inferior alveolar nerve injuries by electrophysically and histomorphometrically.

**Materials-Methods:** Fifty New Zealand rabbit were divided into five treatment groups: control group, laser group, extra laser group, PRF group, and PRF + laser group. In all of groups, 6 mm segment from inferior alveolar nerve was excised and bridged with a poly-DL-Lactide-3-Caprolactone conduit using an operating microscope. In PRF and PRF+laser groups, the conduit was filled with small pieces of PRF. In other groups, saline solution was added to conduit. LLLT (GaAlAs, 810 nm, 100 sn, 0,3 W, continuous mod) was applied to the defect for 10 days. At the 15th weeks after microsurgical repair, electrophysical tests (amplitude, duration, latency) were performed.

**Results:** Axonal number, axon diameter and myelin sheath thickness in control group was statistically less than in all other experimental groups ( $P<0.05$ ). The axon diameter in laser group was significantly larger than in PRF group ( $P<0.05$ ). No significant differences in axonal number and myelin sheath thickness were found between the laser, extra laser, PRF and PRF+laser groups. Furthermore, there were no differences in the measured parameters (amplitude, duration, latency) between all groups.

**Conclusion:** This study suggests that laser and PRF applications have positive effects on the nerve regeneration. However, simultaneously PRF and laser application and extra laser application don't provide a significant contribution to nerve repair in comparison to the PRF and laser treatment.

**SS-057****Decompression Tubes in the Management of Large Odontogenic Cysts: Case Series**

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A cyst is a pathological epithelial cell-lined cavity that is filled with fluid or semi-fluid material. They are frequently found as intra-bony lesions of the jaw and may expand enough to cause bone erosion and facial asymmetry. Although removal of the cyst is main treatment option in these cases, enucleation of these lesions may cause infection, fracture of the jaw, devitalize teeth, or nerve injury, if the cyst is large and localize nearby important anatomic structures and teeth. To avoid those complications, marsupialization or decompression is suggested to reduce the size of the cyst, then enucleating the lesion is safer and uncomplicated. Many previous studies have put forward that decompression can be considered a good treatment option in large odontogenic cyst cases such as radicular cysts, dentigerous cysts, keratocystic odontogenic tumors and even unicystic ameloblastoma. Especially in young patients, decompression is the sole treatment plan and there is no need to enucleate the cystic lesion after decompression. In these case series, decompression of cystic lesions of the mandible and maxilla such as radicular, residual and dentigerous cysts and one keratocystic odontogenic tumor are presented using a panoramic and CT views.

### SS-058

## **Efficiency of Glucosamine Chondroitin-MSM Usage after One Session Hyaluronic Acid (HA) Injection Following Arthrocentesis for Management of Tempomandibular Joint Osteoarthritis**

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**Objective:** To investigate efficiency of extra usage of glucosamine chondroitin-MSM after one session hyaluronic acid (HA) injection following arthrocentesis for management of TMJ-OA.

**Methods:** The sample was composed of 27 joints of the 23 patients with temporomandibular joint osteoarthritis (TMJ-OA), diagnosed according to the Research Diagnostic Criteria for Temporomandibular Disorders (RDC/TMD axis I group IIb). The patients were randomly divided into two groups: Group 1 included 14 patients (18 joints), and they were treated with one session hyaluronic acid (HA) injection following arthrocentesis. Group 2 included 9 patients (9 joints). The patients in this group were treated with one session hyaluronic acid (HA) injection following arthrocentesis, then the patients were taken glucosamine chondroitin-MSM (at 2 ×1 dosage per day for 3 months). The predictor variable was the treatment technique. The outcome variables were visual analogue scale (VAS) evaluations and maximal interincisal opening (MIO) measurements. The outcome variables were recorded preoperatively and 12 months postoperatively.

**Results:** Both treatment techniques resulted in significant clinical improvements in VAS parameters and painless MIO. No statistically significant different change was observed between groups in all parameters.

**Conclusion:** Our findings suggested that extra usage of glucosamine chondroitin-MSM showed no additional benefit for treatment of TMJ-OA, but one session hyaluronic acid (HA) injection following arthrocentesis produced favorable clinical improvements.



**SS-059****Comparison of Ozon and Photobiomodulation Therapies  
on Mental Nerve Injury in Rats**

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Neurosensory disturbances (ND) can occur due to the injury, dysfunction and innervation changes of peripheral or central nervous system, and associated with altered sensation and chronic pain. Wisdom teeth surgeries, local anesthesia injections, orthognathic surgery, distraction osteogenesis, implant surgery, and endodontic treatment can cause ND. Proper treatment methods are still being investigated for the treatment of this undesirable complication. Ozone is biocompatible with oral epithelial cells, gingival fibroblasts and periodontal cells, and ozone therapy (OT) has successful outcomes in oral and maxillofacial surgery and implantology. Photobiomodulation (PBM) stimulates proliferation and differentiation of fibroblasts, osteoblasts, and chondroblasts. PBM is a treatment method that has effective outcomes on nerve repair and bone regeneration. In the present study, the effects of ozone and PBM therapies on mental nerve injury were evaluated. Mental nerves of 27 rats were partly sutured and allocated into three groups. Group 1 received no treatment, whereas OT and PBM therapies were administered in Group 2 and Group 3, respectively. Number of fascicles after nerve branching and Schwann cell counting before and after nerve injury have been evaluated histologically. A better healing pattern was observed in the treatment groups. The number of Schwann cells were significantly greater in OT and PBM groups. Oral and maxillofacial surgeons must be familiar with the differential diagnosis, prevention, and management of neurosensory disturbances. This study provides insights into the management of neurosensory disturbances related to mental nerve injury by using OT and PBM. Our study clearly suggests that OT and PBM are promising novel methods in the treatment of mental nerve injury.

### SS-060

## Dental Pulp Stem Cells Combined with Low-Level Laser Therapy Accelerates New Bone Regeneration in The Rapid Maxillary Expansion Procedure

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**Objective:** The aim of the study was to evaluate the effect of dental pulp stem cells (DPSCs), low-level laser therapy (LLLT) and their combination on bone regeneration in midpalatal suture area in a rat model.

**Materials Methods:** Male wistar albino rats were used for this experiment. The animals were randomly separated into four groups of seven rats each: (1) Dental pulp stem cells, (DPSC), (2) Low Level Laser Therapy, (LLLT), (3) Control (C), and (4) DPSCs combined with LLLT (DPSC+LLLT). Expansion appliances were affixed to the maxillary incisors. After a 5-day expansion and 10-day consolidation period all rats were sacrificed. 1. and 4. groups were administered with  $10^3 \times 10^3$  DPSCs in 100  $\mu$ L mL sterile saline, and the 2. and 3. groups were administered with 100  $\mu$ L mL sterile saline into the mid-palatal sutures of rats. The therapeutic laser was performed on 2. and 4. groups and was used with a power of 0.3 W and an energy density of 16 J/cm<sup>2</sup>/point, every other day, started first expansion period until rats sacrificed. Histomorphometric evaluation was performed to determine new bone formation.

**Results:** Significant differences were seen among the members of the DPSC+LLLT group compared to other groups (DPSCs,  $p < 0.05$ , LLLT,  $p < 0.05$  and control  $p < 0.01$ ) in order to new bone regeneration. The individual DPSCs and LLLT groups was also significantly greater than control group ( $p < 0.05$ ). No statistically significant difference was found between DPSCs and LLLT groups.

**Conclusion:** According to results of current study combined DPSC and LLLT therapy may accelerate new bone regeneration and may also prevent post expansion relapse after RME.

### SS-061

## Smoking Related Alterations on miRNA Expression of Oral Mucosa: A Preliminary Study

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**Objective:** miRNAs are small, non-coding RNA molecules that negatively regulate gene expression at post-transcriptional level, and function in a variety of biological processes. It is known that expression profile of miRNAs differ according to diseases, pathologies and some external factors. Smoking is a high risk habit affecting both oral and general health. Especially on local exposure, smoking alters cellular functions. For this reason we hypothesized that expression level of miRNAs may differ in smokers' oral mucosa. The main objective of this study was to evaluate the expression of miRNAs of oral mucosa in relation with smoking.

**Methods:** Twelve smoker and 12 non-smoker patients (17 men, 7 women; age range, 22-52 years) were included in this study. Samples were taken from buccal mucosa of all patients and stored at -80°C. hsa-miR-204, let-7c and hsa-miR-21 were selected for examination. The isolation of miRNAs was carried out using miRNeasy Mini Kit (Qiagen). Quantitative real-time PCR (Rotor-Gene Q, Qiagen) was applied to detect expression profile of miRNAs. Student t-test was used to compare miRNA expression levels between two groups, while Pearson correlation coefficient was used to measure relationship between miRNA expression profile and smoking quantity or duration. Bioinformatics analyses were performed by using R Programming Language v3.2.2 (R Foundation for Statistical Computing, Vienna).

**Results:** hsa-miR-204 (fold change 1.47) and let-7c (fold change 1.28) were up-regulated while hsa-miR-21 (fold change 0.96) was down-regulated in smokers compared to non-smokers. However this difference was not statistically significant. Apoptosis and cell proliferation are common functions of all three miRNAs. Immune response and inflammation are also enriched functions of hsa-miR-21 which was down-regulated in smokers. Enriched functions of miRNAs and associated diseases were explored using a web-accessible program TAM:Tool for annotations of human miRNAs ([www.cuilab.cn/tam](http://www.cuilab.cn/tam)).

**Conclusions:** Different levels of miRNA expression of miR-204, miR-21 and let-7c between smokers and non-smokers are identified. Biological functions of these miRNAs should help us to understand effects after cigarette smoke exposure. These preliminary results show that investigating larger sample groups for different miRNAs could be advantageous.



## SS-062

**Exosomes Secreted from Dental Pulp Mesenchymal Stem Cells Promote Repair and Regeneration of Temporomandibular Joint in Osteoarthritis**

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**Objective:** Temporomandibular joint Osteoarthritis (TMJ-OA) is a degenerative disease that affects the articular cartilage and the underlying subchondral bone. The treatments are generally symptomatic, and do not affect the regeneration. Therefore, it is essential to evaluate new treatment options of TMJ-OA to reduce or eliminate medical and/or surgical need of patients. Extracellular vesicles such as exosomes are released by different cell types and participate in physiological and pathophysiological processes. Many of the mesenchymal stem/stromal cells (MSCs) studies led to the assumption that instead of direct cellular effects, secreted factors induce the MSC proregenerative and/or immune-modulatory functions. The aim of this study is to evaluate the effect of exosome secreted from dental pulp MSCs (DPMSCs) on tissue repair of TMJ-OA.

**Methods:** Dental pulp tissue was obtained from a healthy human donor. After mechanical and enzymatic digestion DPMSCs were cultured in alpha modification of minimal essential medium containing 10% fetal bovine serum, 0.1% ascorbic acid, 1% penicillin-streptomycin, and 1% L-glutamine in humidified 5% CO<sub>2</sub> incubator at 37°C. Primary antibodies against MSC markers were analyzed using a flow cytometry system and immunocytochemistry analysis was performed by using same surface markers. In order to show DPMSC characteristics, the cells were induced to differentiate into mesenchymal cell lineages; osteo-, chondro- and adipo-genic cells. For isolating the exosome, DPMSCs were cultured in serum-free medium for 48 hours, at which time exosomes were isolated from the DPMSC-conditioned media by Total Exosome Isolation kit (Thermo Fisher). Surgical defects were created bilaterally on the condylar fibrocartilage, hyaline cartilage, and bone to induce osteoarthritic TMJs in 12 rabbits. Exosome was applied to the right joints (150µl/joint) of the rabbits and left joints received physiologic saline (control group). After 4 weeks, the rabbits were sacrificed for histologic examinations. The scores for healing and measurement of area for each tissue (fibrocartilage, hyaline cartilage, connective tissue and bone) were performed.

**Results:** DPMSCs demonstrated a homogeneous population of cells negative for CD11b, CD34, and CD45, HLA-DR and positive for CD44, CD73, CD90, and CD105. Adipo Red, Alizarin Red and Safranin O staining were found positive after differentiation assays. Histologic assessment of the healing score of the surgical defect in exosome group was found statistically higher than control (p=0.00). Connective tissue and fibrocartilage regeneration was found higher in exosome group. Fibrocartilage regeneration was not statistically significant between groups. However, bone and hyaline cartilage regenerations were clearly greater and statistically significant in exosome group (p=0.00).

**Conclusion:** The application of exosome, secreted from DPMSCs may be a promising therapeutic tool for TMJ-OA.

**SS-063****Ewing Sarcoma of The Mandible Diagnosed in The Retromolar Area After Extraction of Mandibular Third Molar: A Case Report**

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**Objectives:** Ewing sarcoma (ES) is a rare, primary malignancy of bone that occurs in childhood and early adolescence. ES usually occurs in long bones of the axial skeleton, ribs and pelvis however it may rarely arise in facial structures particularly in the mandible. Radiographic findings in ES reflect many destructive nature of the lesion, like osteolysis, cortical erosion, periostitis and soft tissue mass. In clinical terms, this tumor has an aggressive behavior and is identified with rapid growth and high probability of metastasis at diagnosis. Treatment mainstays are chemotherapy and surgical resection.

**Methods-Results:** We present the clinical findings and management of an ES case that was diagnosed in the right mandibular retromolar area after extraction of an impacted third molar teeth in a 26 year-old female patient. After histopathological examination confirmed ES, a combination of chemotherapy and radiotherapy was administered before surgery. Then the tumor was radically resected with a segmental mandibulectomy and reconstructed with a microvascular osteocutaneous free fibular flap. The patient received postoperative adjuvant chemotherapy and followed-up for one year without any recurrence.

**Conclusion:** ES of jaws is a rare malignancy and as it is mistaken for other odontogenic infections, it should be carefully examined clinically for early diagnosis and better prognosis. Early diagnosis before metastasis is very critical for improved survival in patients with ES. Multidisciplinary management in diagnosis, treatment and restoration of functions produce optimal results which eliminate disease, preserve aesthetics and quality of life of patients.



**SS-064****Does The Lower Third Molar Impaction Pattern Alter  
The Risk of Condylar Fracture**

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**Objective:** Fracture of mandible depends on variable conditions. The aim of the study was to investigate the influences of the presence and position of a impacted lower third molar on the fragility of mandibular condyle, using finite element analysis.

**Methods:** From computed tomographic scans of a human mandible with impacted third molar, thirteen virtual models were generated according to Pell Gregory Classification: Class I, II, III and each group modeled vertical, mesioangular, distoangular and horizontal position and one control model without third molar. Force was applied from two different point as angulus and symphysis region. The results are based on the chromatic analysis of the distributed von Mises and principal stresses, and calculation of their failure indices.

**Results:** In the frontal blow on symphysis, the condyle region showed the highest stress in case without third molar. Presence of impacted third molar increased stress on the angle region and decreased stress on the condyle region. The highest stress on the angle region was observed with impacted third molar Class III mesioangular position but lesser than condyle region without third molar. In the lateral blow on angle, stress concentrated on the impact point and condyle region. In case without third molar the highest stress was observed on the condyle region. In all models with third molar stress on angle was higher than condyle. The highest stress on angle was observed with impacted third molar Class III mesioangular position.

**Conclusion:** The results of this study has showed presence of an impacted third molar in mandible increases stress on angle region and simultaneously decreases stress on condyle region and reduces condyle fracture risk. This findings could bring a new perspective to prophylactic extraction of impacted third molars for reducing fracture risk of mandible.

**SS-065****A Minimally-Invasive Procedure Using Sphenopalatine Ganglion Blockade for The Management of Trigeminal Neuralgia: Preliminary Report**

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**Introduction:** The sphenopalatine ganglion (SPG) may be involved in persistent idiopathic facial pain and unilateral headaches.

**Material-Method:** In this retrospective study, patient records included patients with atypical trigeminal neuralgia (Type 2) that persisted in spite of conservative treatment for at least 2 years, and an average pain intensity from the craniofacial region visual analogue scale (VAS) before examination.. In group I the patients received carmapazepin 800 mg a day for at least 2 years. In group II 3 ml of local anesthetic agent consisting 2 ml bupivacaine and 1 ml prilocain in addition to 1ml fentanyl, 0,5 ml betametasone disodium phosphate and 0,5 ml opaque was injected by the intraoral route. In this group, injection procedures were performed under local anesthesia with fluoroscopic guidance. The Kruskal-Wallis and Mann Whitney U tests with Bonferroni correction were used for intergroup analysis. Age and sex differences were evaluated with one-way ANOVA and Fisher's exact tests, respectively.

**Results:** Significant differences were found between pre-op and 3rd day VAS values and also pre-op and 1st month VAS values. No significant differences were found between pre-op and 6th month VAS values.

**Conclusion:** The SPG blockade improves the quality of life of patients and a minimally-invasive procedure to management of trigeminal neuralgia, when compared to other methods.

**SS-066****Is Peek Material An Alternative For Custom Made Hemi-joint Fossa Prosthesis? A Finite Element Study**

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**Objective:** Hemi-joint fossa prosthesis is an interpositional material placed in patients with degenerative joint disease, osteoarthritis or fibrous/osseous ankylosis. All hemi-joint prosthesis was made of Chrome-Cobalt-Molybdenum (Cr-Co-Mo). However, Cr-Co-Mo material increases the stiffness difference between the articular fossa bone and hemi-joint fossa implants, as a result, contribute a stress shielding effect in the bone. It has been shown that the material properties of Polyether Ether Ketone (PEEK) material, including Young's modulus, density, and strength are very close to the human bones. The purpose of this study is to compare the durability and stress distribution of hemi-joint prosthesis which is made of Cr-Co-Mo and PEEK by using finite element model analysis.

**Material Methods:** A three-dimensional (3D) finite element model of the mandible including the TMJ was developed for the analysis of TMJ stresses on hemi-joint TMJ fossa prosthesis is produced by Cr-Co-Mo and PEEK materials.

**Results:** Our results showed that the stress is critical around the contact with the condyle where it reaches 93MPa for the PEEK and a higher value of 146MPa for the Cr-Co-Mo. The results of the analysis also revealed that the maximum stress occurred at the first screw 74MPa for the PEEK and 76MPa for the Cr-Co-Mo.

**Conclusion:** The results showed that PEEK experience lower stress distribution on bone and implants, when compared with Cr-Co-Mo. Our study has potential clinical benefits in usage of PEEK material on hemi-joint fossa prosthesis.

**SS-067****Conservative Treatment of Recurrent Temporomandibular Joint Dislocation with Autologous Blood Injection**

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Temporomandibular joint (TMJ) dislocation is a very disturbing condition for the patient and is becoming increasingly more common in the society. Permanent treatment of TMJ may require advanced surgical techniques. However, decision-making for surgery may be difficult for the patients. Autologous blood injection is a method that provides more effective outcomes compared to other conservative methods and has been long studied in the literature; however, there are very few studies reporting on this method. In the treatment of TMJ, all the conservative methods should be employed before initiating advanced surgical techniques. In this study, autologous blood injection was performed in 23 patients with recurrent TMJ dislocation. At 1-year follow-up, no complication was observed in any patient and the complaints were resolved in all the patients except for 2 patients. We consider that autologous blood injection is a useful conservative method to be used in the treatment of recurrent TMJ with no need for surgical treatment.

**SS-068****Posterior Maxillary Glandular Odontogenic Cyst:  
A Rare Entity, Case Report**Nazlı Altın<sup>1</sup>, Nihan Aksakallı<sup>2</sup><sup>1</sup>Department of Oral and Maxillofacial Surgery, Faculty of Dentistry, Istanbul Aydın University<sup>2</sup>Department of Tumor Pathology, Institute of Oncology, Istanbul Aydın University

**Objective:** Glandular Odontogenic Cyst (GOC) is an extremely rare lesion with odontogenic origin, occurring in the jawbones. The mandible is affected more than the maxilla, and the lesion can cross the midline frequency. GOC usually occurs in middle age men and only few cases have been reported in females. Clinically, this lesion is generally painless and slow growing. Sometimes it can be asymptomatic and discovered on routine radiographs. Radiologically, these cysts may be presented unilocular or multilocular lesion with a well-defined borders. Histologically, GOC is characterized by a cyst wall lining of non-keratinized epithelium, with papillary projections, nodular thickenings, mucous filled clefts, with intraepithelial 'mucous lakes'. The aim of this case report is to present an uncommon case of GOC in the left region of the posterior maxilla, which is an unusual location, diagnosed by histopathology with emphasis on differential diagnosis.

**Method:** A 58 year old female patient was referred to Department of Oral and maxillofacial Surgery, Faculty of Dentistry, University of Istanbul Aydın, with the chief complaint of swelling in buccal sulcus of left posterior maxilla since the past six months. Intraoral examination showed a very mild swelling in the buccal region of the left posterior maxilla that extended from the left first premolar region to the right third molar region. Cone-beam computed tomography (CBCT) revealed a large, unilocular, radiolucent lesion with well-defined borders of approximate 3,5 x 2,5 cm in diameter, in the left region of posterior maxilla and unilocular, radiolucent lesion with occlusal cortical plate perforation in the right region of posterior maxilla. Two operations planned. First, under local anaesthesia, the buccal cortical bone of the left posterior maxilla was removed through an intraoral incision and the lesion was enucleated in one piece. After healing period, under local anaesthesia the second operation on the right side of the maxilla was performed.

**Results:** Histopathologic diagnosis of the first pathologic specimen was GOC. Microscopically the cyst had connective tissue wall which lined by nonkeratinized stratified squamous epithelium. Lining surface had eosinophilic cuboidal or columnar cells, so called 'hobnail cells'. These cells showed papillary appearance into the cyst lumens. Cytoplasm of some cells contained mucin which was showed periodic acid-Schiff (PAS) + Alcian Blue positivity. On histopathologic examination of the second pathologic specimen, radicular cyst was reported.

**Conclusion:** The GOC is a rare odontogenic cyst having an aggressive clinical course and often misdiagnosed due to its varied clinical and radiological findings. Its differential diagnosis includes both benign and malignant lesions and It should be added in the differential diagnosis of unilocular/multilocular radiolucency of the maxillary posterior region.





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## POSTER PRESENTATIONS

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**PS-001****Angular Changes of Impacted Mandibular Third Molars in Young Adults**

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**Objective:** The aim of this retrospective study is to evaluate vectorial alteration of the impacted mandibular third molars (IMTM) in time in a population between 15-32 years.

**Methods:** Angulation of the IMTMs of 87 patients were evaluated with three different references at three different periods. Angulation of IMTMs for each reference point at all time intervals were compared. Data were analyzed statistically using Chi-square, Mann Whitney U, and Kruskal Wallis test.

**Results:** Significant change ( $p < 0.05$ ) of the angulation over time (increase or decrease) was observed in the IMTMs measured for all three reference points. However, statistically no significant result was found in terms of the direction of this change in all groups.

**Conclusion:** The angle between third molar axis and different reference points may change in time. However, it does not seem to be possible to estimate the amount and direction of angular change of third molars over time.

**PS-002****The Incidence of Accesory Ostium in A Turkish Population  
Sample: A Radiological Study**

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An accessory ostium, which occurs in 30-40% of all sinuses is most likely to be found between the inferior and middle turbinates. Nasal endoscopy as a preoperative diagnostic tool which will allow the identification of potential complications with antroplasty bone grafts before obliterating the accesory ostium or contaminating the bone graft, if proper precautions are not taken. Therefore some authors advocate that in high level sinus elevation, a diagnostic endoscopy under topical anaesthesia may be beneficial.

The aim of this study is to evaluate the distance between the inferior turbinate-sinus floor regarding sinus floor augmentation procedures in a Turkish population sample. In addition, the presence and location of the accessory ostium have been assessed.

Maxillofacial CT scans of 708 patients were assessed bilaterally. The distance from the lateral sinus wall, the distance to the sinus floor and the location regarding the corresponding maxillary tooth were determined.

Among the study group, 132 accesory ostium were determined. (59 left, 73 right). 29 patients presented with bilateral existence. %62 of the accesory ostium was determined above the corresponding upper second molar.

Accesory ostium is a common entity in Turkish population sample. Prior to surgical interventions to the maxillary sinus, the existence and the location of the entity should be determined.



## PS-003

**The Influence of Oral Administration of Rosuvastatin on Calvarial Bone Healing in Rats**

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The purpose of this study is to investigate the potential of the systemic administration of different doses of rosuvastatin (RSV) on autogenous grafted critical-sized cortical bone defects. Twenty-four rats were divided into three groups: Group C (control), Group RSV-2 and Group RSV-5. A 5-mm diameter critical-size defect was created in the calvarium of each animal. In Group C, the defect was filled by autogenous graft only and rats were given saline solution with oral gavage for 28 days. In Group RSV-2 defects were filled with autogenous graft and rats were given 2 mg/kg rosuvastatin with oral gavage for 28 days. In Group RSV-5 defects were filled with autogenous graft and rats were given 5 mg/kg rosuvastatin with oral gavage for 28 days. All animals were euthanized at 28 days postoperative. Stereologic and micro-ct analyses were performed. New bone area (NBA) and connective tissue volumes were measured. Stereologic analysis showed that Group RSV-5 and RSV-2 had significantly more new bone at 4 weeks compared with group C. Connective tissue volumes were also significantly higher in RSV applicated groups. New bone and connective tissue volumes> difference were not statistically significant between RSV groups. Micro-ct results were similar with stereologic analyses. Orally administered RSV enhances bone regeneration in critical size calvarial rat defects filled with autogenous graft furthermore possible inflammatory effect should be investigated.



**PS-004****Influence of Patient Anxiety on Operation Quality and Surgeon's Comfort in Third Molar Surgery**

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**Objective:** Impacted third molar extraction generally provokes a high level of anxiety in patients, and causes stress and discomfort to the operating surgeon. The aim of this study is to evaluate the influence of anxiety to the surgery quality and surgeon comfort in third molar surgery.

**Material-Methods:** "STAI-T" and "STAI-S" questionnaires, which are used to measure anxiety, was administered to 110 patients via an interview in order to measure their levels of preoperative anxiety. The time necessary for the tooth extraction (starting from the first incision to the last suture) was recorded. After the operation a questionnaire including 8 questions was administered to surgeons who performed the third molar surgery.

**Results:** The results of STAI-T and StAI-S questionnaires were not statistically different between men and women ( $p>0.05$ ). Surgeon's vomiting sensation and STAI-T; and surgeon's judgment for cooperation problem and sedation preference were significantly related ( $p<0.05$ ).

**Conclusions:** Patient co-operation is an important factor in oral surgery procedures. Assessing the patient's anxiety level and taking necessary precautions before the operation is important for both patient and surgeon's comfort during the oral surgery operations.

**PS-005****The Effect Preoperative 2-D Animation Information About Third Molar Surgery on Anxiety and Hymodynamic Changes of Patients**

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Anxiety related to dental treatment and phobias of dental procedures are common phenomenon in patients and can result in substantial distress and oral health impairment. This situation is distressing problem for both patients and health care providers because it makes harder to provide treatment, causes lost time and affect the quality of dental treatment. In maxillofacial surgery the most common surgical treatment is third molar extraction. Likewise other dental treatment, anxiety affects this basic but invasive surgical management. It leads to longer operation times which causes higher incidence of facial swelling, and higher levels of pain. Also dental anxiety and stress in third molar surgery can lead to hemodynamic changes such as hypertension or increased heart rate. Therefore detecting anxiety in patients and reducing anxiety levels before surgery is very important for quality of care related third molar extraction. Studies have demonstrated that video-assisted patient education compared with a verbal or written education has mixed results on preoperative anxiety. Therefore the present study addressed the question: among patients with impacted third molars does the use of education techniques compared with control group that were not informed detailed about surgery, reduce the anxiety during removal of an impacted third molar. The specific aim of this study was to compare the patient anxiety levels between the treatment and control groups by anxiety scales and by measuring the physiologic signs such as heart rate (HR), both systolic (SBP) and diastolic pressure (DBP) and oxygen saturation (SaO<sub>2</sub>).

**Methods:** To address the proposed specific aim, we implemented a prospective, randomized clinical trial study. A total of 105 patients were divided into three categories: control, verbally informed and visually informed group. Anxiety levels were measured by anxiety scales and physiologic signs before and after surgery.

**Results:** Ninety-seven patients participated in the study. Having a previous operation history did not affect anxiety scores. Age and level of education was not correlated with any of the studied parameters either. Education with 2-D illustration had led to a significant increase in anxiety.



## PS-006

**Evaluation of Prophylactic Effect of Pentoxifylline on a Rat Model of Medication-Related Osteonecrosis of the Jaw via Biomarkers**

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Zoledronic acid (ZA) therapy causes changes in biochemical bone turnover markers. It is suggested that some biochemical markers could be diagnostic for MRONJ. The aim of this experimental study is to investigate the prophylactic effect of Pentoxifylline (PTX) on medication-related osteonecrosis of the jaw (MRONJ) via biochemical bone turnover markers. In our study, female Sprague-Dawley rats (n=33) were used. Rats received ZA 3 times per week 0.1 mg/kg for 8 weeks intraperitoneally to create osteonecrosis model. The left second molar teeth were extracted and the animals were allowed to recover for 8 weeks before being sacrificed. PTX was intraperitoneally administered to prevent MRONJ. At the end of this 16-week period, all rats were sacrificed. Blood samples were taken during sacrifice. In this study, bone resorption markers, tartrate-resistant acid phosphatase 5b (TRACP 5b) (ng/ml), serum C-terminal cross-linked telopeptides of type I collagen (serum-CTX) (ng/ml), bone formation marker serum bone-specific alkaline phosphatase (serum-BAP) (U/L) values were measured by Elisa and Bone TRAP immunoassays. Between group I (Control) and group II (SS+PTX), there is no statistically significant difference for serum-CTX, TRACP 5b and serum-BAP values ( $p>0.05$ ). Between Group IV (ZA+PTX) and group III (ZA+SS) TRACP 5b values; group IV TRAP 5b has showed statistically significantly higher value ( $p<0.05$ ). Between groups III, IV, V; in group III, TRACP 5b values have showed statistically significantly lower value than group IV and V ( $p<0.05$ ). This shows that PTX decreases BPs inhibitory effect on osteoclasts. Groups that we applied both ZA and PTX; TRACP 5b value of group V (ZA+PTX+PTX), which we applied PTX before and after extraction, has showed statistically significantly higher value than group IV, which we applied PTX just after the extraction. This gives rise to thought that prophylactic PTX application may be more effective in treatment. Serum-BAP values of the groups that we did not apply ZA has showed statistically significantly higher value than the groups that we applied ZA. Between serum-BAP values of Group IV and V, there is no statistically significant difference. Between serum-CTX values of group III and group I; group III has showed lower values, but there is no statistically significant difference ( $p=0.068$ ). Between serum-CTX values of Group III, IV and V; group IV and V has showed higher values but there is no statistically significant difference ( $p=0.055$ ). This suggests us that PTX may slightly decrease effects of ZA. In this study, TRACP 5b values of the groups that we apply PTX were statistically significantly higher than the groups that we did not apply PTX. This shows that PTX application may decrease effects of BPs on osteoclasts and in this way on bone metabolism. Because of this short-term study, effect of PTX on bone metabolism did not redound on serum-CTX and serum-BAP values.



## PS-007

**Maxillary Sinus Volumes and Mucosal Thickness of the Patients with Bisphosphonate Related Osteonecrosis of the Jaws**

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**Objectives:** Bisphosphonates (Bps) are commonly prescribed drugs for the management of malignant disorders and benign metabolic conditions due to their antiresorptive effects. Bisphosphonate related osteonecrosis of the jaw (BRONJ) is a clinically significant complication of Bps. The effects of BPs on oral soft tissues or cells are still controversial. The aim of this study was to compare the maxillary sinus volumes and mucosal thickening of the patients with BRONJ and healthy patients.

**Materials-Methods:** The cone beam computed tomography (CBCT) images of 54 maxillary sinuses in 27 patients were evaluated in this study. There were three groups in the study: Group 1 (n=9) and group 2 (n=8) are study groups, patients who had BRONJ and Group 3 (n=10) control, healthy individuals with same gender and age who have no history of bisphosphonate administration. Maxillary sinus volumes and mucosal thickening were compared between the groups. MIMICS® software was used for measurements and the patient-specific Hounsfield values were set to include the largest amount of voxels in the sinuses volume calculation individually. Maxillary sinus volumes were measured in mm<sup>3</sup>. Length of the sinus mucosa was measured from the coronal sections at the most prominent part of the thickening vertically as mm and measurements were compared statistically.

**Results:** Group 3 consisted of 10 patients (37%), who composed of healthy individuals; 9 patients (33%) in group 1 which consisted of the BRONJ patients who had osteonecrosis of the maxilla and 8 patients (30%) in group 2 which were mandibular BRONJ patients who did not have osteonecrosis of the maxilla. The mean age was, 67 in group 1, 70 in group 2 and 65 in group 3. The mean maxillary sinus volume was 13114 mm<sup>3</sup> (min: 4165, max: 24733 mm<sup>3</sup>) in group 3, 9700 mm<sup>3</sup> (min: 127, max: 20662 mm<sup>3</sup>) in group 1 and 11498 mm<sup>3</sup> (min: 5541, max: 18210 mm<sup>3</sup>) in group 2. There was no statistically significance between groups (p=0,153) according to maxillary sinus volumes. Mucosal thickening was prominent significantly in group 1 compared to the group 3 and group 2 (p=0,002). The mean mucosal thickness was 0.8 mm in group 3, 7.8mm in group 1 and 1.9 mm in group 2. There is statistically significance in comparisons between group 3 and 1 (p=0.02) and, between group 1 and 2 (p= 0,017). There is no difference in group 3 and group 2 statistically (p=0,873).

**Conclusions:** Bps can effect the oral hard and soft tissues and BRONJ can be easily diagnosed with CBCT. There is significant changes in maxillary sinus mucosal thickening in BRONJ patients. The exact mechanism of Bps on soft tissues is still controversial however, it is known Bps effect the fibroblast's apoptotic and proliferative activities and this may lead osteonecrosis of oral soft tissues. Decreased cellular activity of fibroblasts may be the reason of mucosal thickening in maxillary sinus.

**PS-008****The Role of Ozone Gases Therapy on Stage II and III  
MRONJ Cases**

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Medication-related osteonecrosis of the jaw (MRONJ) is an adverse drug reaction consisting of progressive painful bone destruction in the maxillofacial region of patients under current or previous treatment with antiresorptive and antiangiogenic medications. Areas of exposed and necrotic bone, which may remain asymptomatic for weeks, months, or even years, are the consistent hallmark of MRONJ. The lesions may become symptomatic when the surrounding soft tissues become inflamed and prolonged jaw pain usually compromised patients' daily life comfort.

Ozone gases therapy is a current non-invasive therapy for management of neural ischemia, neuropathic pain, prolonged infection and also it enhanced bone regeneration. The aim of this case series was to report the management of 3 painful patients with medication related osteonecrosis by applying ozone gases therapy. All patients received ozone gases therapy as one time in a week for three weeks. The pain level of patients was evaluated by Visual Analog Scale. Actinomyces antibiogramme test was also performed before and after ozone gases therapy. Although ozone gases therapy is not effective to totally manage the osteonecrosis in stage II and III MRONJ patients, it can improve the quality of life via diminishing the pain and preventing the infection.



### PS-010

## Three-Dimensional Finite Element Analysis of The Effect of Different Bone Quality on Stress Distribution in Variant Geometric Design of Endosteal Implants

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**Purpose:** The aim of this study was to investigate the effect of 4 different bone qualities on stress distribution in variant geometric design of endosteal implants, using three dimensional(3D) finite element analysis(FEA).

**Material-Methods:** A three dimensional model of premolar mandibular region with endosteal implants, their abutments and crown were constructed by using a computer software program(ANSYS 14.0). SPI and ATID dental implants (Alpha-Bio Tec) which were 3.75 mm x 11.5 mm (diameter x length), metal-ceramic crown using Co-Cr (Wiron 99), feldspathic porcelain and four bone qualities (D1,D2,D3,D4) were modeled. A load of 300 N was applied in a vertical direction to the buccal cusp and distal fossa of the crowns. Optimal bone quality for different dental implant designs was evaluated.

**Results:** When SPI implant was analyzed in D1,D2,D3 and D4 bone qualities, maximum Von Mises stresses were respectively 59.72 MPa, 73.99 MPa, 61.89 MPa and 66.83 MPa. Homogeneous stress distribution was seen from coronal to apical part of the SPI implant in D1 and D2 bone qualities. In D3 and D4 bone qualities, maximum Von Mises stress was detected at the implant-abutment connection, neck of the implant and apical blades. Maximum Von Mises stress values of ATID implant in D1,D2,D3 and D4 bone qualities were respectively 64.96 MPa, 85.87 MPa, 98.56 MPa and 103.43 MPa. Homogeneous stress distribution was detected in D1 bone quality. Maximum Von Mises stress was seen at the apical part of ATID implant in D2,D3 and D4 bone qualities.

**Conclusion:** Minimum Von Mises stress values of SPI and ATID implants were in D1 bone quality. Maximum Von Mises stress of SPI and ATID implant was detected on apical blades in D3 and D4 bone qualities. Especially, Von Mises stress values of ATID implant were more higher than SPI implant for D3 and D4 bone qualities.

**PS-011****Evaluation of Dental Implants Survival Rate:  
A Retrospective Study**

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Dental implants have successfully been placed in the partially and fully edentulous mandible and maxilla for more than thirty years. Implant success has been assessed by survival rates, continuous prosthesis stability, absence of peri-implant infection, and absence of radiographic bone loss around the implant. The aim of the retrospective study to evaluate the 5-year survival rate of dental implants in fully and partially edentulous patients. Patients who had dental implant surgery in the period between 2010-2015, were investigated for clinical and radiological examination. Among the 1404 inserted dental implants in 454 patients, 5-year data regarding the outcome of implants. In 41 patient (9.03%) 49 implants (3.49%) were failed. In the current study, dental implants survival rates was defined as 96.51%. Unsuccessful implant surgery can be characterized by the mobility of the implant, continuous radiolucency around the implant, peri-implantitis with suppuration, or subjective complaints from the patient. However, no specific criteria for unsuccessful dental implants have been defined. Several studies have been published on survival rate of dental implants and their survival rates were different. In the current study, dental implants survival rates was defined as 96.51%.

**PS-012****Prevalance of Adolescent Patients with Temporomandibular Disorders (TMD): A Retrospective Study**

Bilge Çadır

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**Objective:** The aim of this retrospective study was to investigate the prevalence of adolescent patients with TMDs.

**Methods:** 238 patients with TMDs admitted to Department of Oral and Maxillofacial Surgery clinic between 2014-2016 were included in this study. Prevalance of adolescent patients with TMDs; and their sex-, age-, etiology- and TMDs-distribution were determined. Results belong to ages were given as "mean age $\pm$ standard deviation".

**Results:** Prevalance of adolescent patients with TMD was 13,5% (n=32). Female-patients (n=22) were more than males (n=10). Mean age of the adolescent patients with TMD (age between 12-17) was 15,3 $\pm$ 1,6 (Female= 14,9 $\pm$ 1,7; Male=16,2 $\pm$ 1,2). Distribution of the patients with TMDs was as follow: 6,3% (n=2) patient with Myofasial Pain Disorder Syndrome (MPDS) [[6,3% (n=2) Female (16 $\pm$ 1)], [0% (n=0) Male (0 $\pm$ 0)]]; 75% (n=24) patient (15,4 $\pm$ 1,5) with Anterior Disc Displacement with Reduction (ADD+R) [[53,1% (n=17) Female (15,2 $\pm$ 1,5)], [21,9% (n=7) Male (16 $\pm$ 1,3)]]; 15,6% (n=5) patient (15,2 $\pm$ 1,9) with Anterior Disc Displacement without Reduction (ADD-R) [[6,3% (n=2) Female (13 $\pm$ 1)], [9,4% (n=3) Male (16,7 $\pm$ 0,5)]]; and 3,1% (n=1) patient (12 $\pm$ 0) with Subluxation [[3,1% (n=1) Female (12 $\pm$ 0)], [0% (n=0) Male (0 $\pm$ 0)]]. Prevalance of the adolescent patients with TMD/ADD+R was remarkably higher (75%) than the other patients with TMDs. Distribution of the etiology was as follow: 47% (n=15) idiopathic; 31,3% (n=10); bruksizm; 3,1% (n=1) dental treatment; 3,1% (n=1) iatrogenic; 3,1% (n=1) neurological; 3,1% (n=1) occlusion; 3,1% (n=1) oral function; 3,1% (n=1) parafunction; and 3,1% (n=1) trauma. While 87,5 (n=28) had single, 12,5% (n=4) had multiple etiology.

**Conclusions:** We concluded that prevalence of adolescent patients with TMDs was low (13,5%) when compared to literature (16-68% (Sena et al. 2013)); however, they were at advanced stages of TMDs (characterized with internal derangement (93,8% TMD/RADD+/-R and subluxation)) at the time when the first treatment requirement.



## PS-013

**Evaluation of Temporomandibular Joint Structures  
In Acromegaly Patients on Cone Beam Computed  
Tomography Images**

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**Objectives:** Acromegaly is a chronic disease caused by excessive production of growth hormone from pituitary adenomas. Arthropathy and pain in large peripheral joints such as the knees, hips and shoulders are commonly seen in acromegaly patients. The aim of this study was to compare the differences between acromegaly patients and healthy individuals in the temporomandibular joint (TMJ) structures on cone beam computed tomography (CBCT) images.

**Materials-Methods:** The CBCT images of acromegaly (group 1) and healthy (group 2) individuals were included to the study. The widest part of the both mandibular condyles was selected from axial section in CBCT. The width of the mandibular condyle (WC) and mandibular fossa (WF), depth of the mandibular fossa (DF), length of interarticular space (LIS) at three points as center (LIS-C), medial (LIS-M) and lateral (LIS-L) were measured on coronal sections in both groups. Three different ratios 1) the lateral stability index (LSI), defined as the ratio between the width of mandibular condyle and mandibular fossa; 2) the coverage index (CI), defined as the ratio between the depth and the width of the mandibular fossa; 3) the frontal centering index (FCI) defined as the ratio between the lengths of lateral and medial interarticular spaces were evaluated. Differences in measurements and ratios were compared statistically.

**Results:** This study includes 52 temporomandibular joints of 26 patients which 12 of them are in group one (46%) and 14 in group two (54%). Comparisons of WC, WF, DF and LIS at all points were statistically significant (pWC=. 0,00, pWF=0,00, pDF=0,017, pLIS-C=0,00, pLIS-M=0,00 and pLIS-L=0,021). Width of the mandibular fossa and condyle and depth of the mandibular fossa were increased in acromegaly patients. Lengths of interarticular space at center, medial and lateral side of the joint were also higher in group 1 than group 2. TMJ in both groups were defined as "stable" according to the lateral stability index (LIS<0.85) moreover LSI value was statistically significant higher in group 1 than group 2 (pLSI=0.001). The CI which categorized the joints as constrained when CI>0.20. In this study, all joints in both groups were unconstrained and joints in acromegaly patients were less constrained (pCI=0.018). Joints in group 1 and 2 were considered as "laterally centered" according to the FCI index which values were >1 and there was no difference statistically (pFCI=0.061).

**Conclusions:** Acromegaly effects the bony structures and spaces of temporomandibular joints. Widening of the mandibular condyle and mandibular fossa are prominent in acromegaly patients. Increment of the interarticular space which has seen in other joints is also observed in the TMJ for the first time in the literature and this may act the hypermobility of the mandible. Interarticular space lengths and stability index values may be useful for the evaluation of TMJ functions of acromegaly patients.

### PS-014

## **Comparison of Arthrocentesis Plus Platelet-rich Plasma Versus Arthrocentesis Plus Hyaluronic Acid: Changes in Pain during Joint Palpation after Treatment of TMJ Osteoarthritis**

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**Objective:** To compare the long-term changes of pain during lateral and posterior palpation of the joint with osteoarthritis (TMJ-OA) treated with either arthrocentesis plus platelet-rich plasma (PRP) or arthrocentesis plus hyaluronic acid.

**Methods:** We implemented a randomized clinical trial in adult patients with temporomandibular joint osteoarthritis (TMJ-OA). The sample was composed of osteoarthritic 49 joints of the 31 consecutive patients, diagnosed according to the Research Diagnostic Criteria for Temporomandibular Disorders (RDC/TMD axis I group IIIb). The patients were randomly divided into two groups according to treatment technique: initial arthrocentesis plus platelet-rich plasma (PRP) injection and then four consecutive PRP injections used in PRP group, and one session arthrocentesis plus hyaluronic acid (HA) injection used in HA group. Pain during lateral and posterior palpation of TMJ were evaluated using five grading level scale (0 = absent; 1= slight; 2= moderate; 3= intense; and 4= severe) preoperatively and 12 months postoperatively.

**Results:** PRP group consisted 32 joints of 18 subjects, and HA group consisted 17 joints of 13 subjects. Pain at lateral and posterior palpation decreased significantly in both groups. However, pain at lateral palpation showed significantly greater decrease in PRP group compared with HA group.

**Conclusion:** Our findings suggested that arthrocentesis plus PRP injections produced better pain relief during joint palpation compared to arthrocentesis plus hyaluronic acid injection.



**PS-015****Is Dextrose Prolotherapy Superior to Placebo for Treatment of TMJ Hypermobility: Comparison of Pain at Joint and Myofacial Muscles Palpation**

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**Objective:** To compare the long-term clinical outcomes of pain at palpation of TMJ and myofacial muscles in patients with temporomandibular joint (TMJ) hypermobility treated with dextrose prolotherapy versus placebo.

**Methods:** We implemented a randomized clinical trial in adult patients with bilateral temporomandibular joint (TMJ) hypermobility referred to our clinic. At baseline, the sample was composed of 30 consecutive patients, who were randomly divided into two groups: The TMJ hypermobility was treated with either saline (placebo group) or dextrose injections (study group). The solutions injected monthly into posterior disk attachment, superior joint space, superior and posterior capsular attachment and stylomandibular ligament in three sessions. The predictor variable was the treatment technique. The outcome variables were pain at palpation of TMJ and myofacial muscles. The outcome variables were recorded using five grading level scale (0 = absent; 1= slight; 2= moderate; 3= intense; and 4= severe) at baseline and 12 months postoperatively after last injections.

**Results:** The study sample was composed of 26 subjects with TMJ hypermobility (12 and 14 subjects for control and study groups, respectively). Pain at palpation of lateral pterygoid muscle decreased statistically more in study group than that in control group. No significant pain change difference was observed between groups in other records.

**Conclusion:** Our findings suggested that dextrose prolotherapy has no superiority over placebo treatment for many outcomes variables.



## PS-016

**In The Osteoblast-Like Cells, The Investigation of Effects of Zoledronic Acid, Bevacizumab, Dexamethasone and Selenium on Calcium Signal and Apoptosis**

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Although the first Medication-related osteonecrosis of the jaw (MRONJ) case was reported over a decade ago, the pathophysiology of the disease has not been fully elucidated. Proposed hypotheses that attempt to explain the unique localization of MRONJ exclusively to the jaws include altered bone remodeling or oversuppression of bone resorption, angiogenesis inhibition, constant microtrauma, suppression of innate or acquired immunity, vitamin D deficiency, soft tissue BP toxicity, and inflammation or infection. None of these hypotheses has been to focus on cellular ion exchanges. Cells functions are triggered by changes in cellular ion. Calcium ions plays an important role to perform many physiological functions in living organisms. Increasing amount of calcium ion concentration increases apoptosis and free radical level. Apoptosis involves numerous biochemical and physiological pathways, including the activation of a series of cytosolic cysteine proteases. Caspase activation occurs through the activation of cytosolic cysteine proteases, and apoptosis is triggered after activation of caspases. Action of mechanism of MRONJ related studies are available of effects on soft tissue and osteoclasts, there are no studies of effects on osteoblasts enough. In this study, effects of drugs such as zoledronic acid(Zol),bevacizumab(Bev),dexamethasone(Dex) in the important task of osteoblast cells in bone formation on calcium signal, apoptosis and activation of caspases were investigated and this corresponds to the effect generated selenium(Se), an antioxidant formed at the cellular level changes was examined in vitro models. Saos-2 human osteoblast like cells were used in this study. Determined drug doses after result of the cell viability analysis. Saos -2 cells divided into 12 group (Control, Zol, Bev, Deks, Se, Zol + Se, Deks + Se, Bev + Se, Zol + Dex, Zol + Bev, Zol + Dex + Se, Zol + Bev + Se) after cultivated and passaged. Drugs were applied to cell culture medium and incubated for 24 hours. Then intracellular free calcium ion concentration, apoptosis, caspase 3 and 9 activities, procaspase 3, procaspase 9 and poly(ADP-ribose) polymerase(PARP) was assessed by analyses of intracellular free calcium ion concentration,cell viability, caspase, Western blotting assays. The results were assessed statistically with Analysis of variance (ANOVA) and Mann-Whitney U-tests. Consequently, the effect of zoledronic acid appeared to be more than other drugs on apoptosis. When administered in combination(Zol + Bev and Zol + Dex), has been shown to increase the effect. Also in the cells under the influence of selenium, has been found to decrease apoptosis.

**PS-017****Evaluation of Lip Force of Patients with Unilateral and Bilateral Cleft Lip**

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**Objectives:** Aim of this study was to investigate the differences in lip force dynamics between a group of participants with a repaired cleft of the lip and a group of noncleft participants with the same age level.

**Materials-Methods:** A total of 101 children between the age of 10 to 15, were evaluated in the study. Maximum and minimum lip closing forces were evaluated with Lip De Cum device (Cosmos instruments Co. LTD, Tokyo, Japan) for the all groups.

**Results:** No statistical difference was identified for the maximum and minimum values between boys and girls, in each group whereas the mean maximum and minimum lip force of the boys of the all groups was higher than the girls. This study showed that maximum and minimum lip closing force values were statistically same in all groups.

**Conclusion:** This study showed that maximum and minimum lip closing force values were statistically same in all groups. Based on the findings of this research, it may be concluded that patients with bilateral cleft lip have a decrease in maximum and minimum lip force.

### PS-018

### **Blot Clot Vs. Advanced-Platelet Rich Fibrin (A-PRF) In Graftless Maxillary Sinus Floor Augmentation Solutions**

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**Objective:** The rehabilitation of edentulous posterior maxilla with dental implants is difficult according to a defect of posterior alveolar ridge. In recent years an advance in the graft less bone augmentation procedures had consisted where the space left below the Schneiderian membrane is filled with blood clot in order to produce bone formation. The aim of present study is to evaluate the effects of new bone formation of autologous blood (AB), and advanced- platelet rich fibrin (A-PRF) in the rabbit maxillary sinus, after membrane elevation with resorbable mesh.

**Methods:** Bilateral sinus augmentations were performed in 11adult male rabbits (21 maxillary sinus) divided into 3 groups. In all groups, a resorbable mesh (SonicWeld Rx®, KLS Martin,Germany) was placed on the bony window to support the elevated sinus membrane. In group 1(G1), blood clot was applied after elevation of the maxillary sinus (n=7). In group 2(G2), A-PRF was applied after elevation of the maxillary sinus (n=7). In group 3 (G3), sinus floor elevation were done without any graft material. All animals were sacrificed at 8 weeks for histopathological analysis.

**Results:** There were no significant difference in between G1 and G2 at 8 weeks after surgical procedures ( $p>0.05$ ). In histological analysis, the new bone formation ratio revealed significant differentiation between G1 and G3 ( $p<0.05$ ). The blood clot group showed a relatively lower new bone formation rather than the other groups. Control group showed the best new bone formation results.

**Conclusion:** These results suggest that the simple elevation of the sinus membrane with resorbable mesh can lead to bone formation and that the newly formed bone in the non-grafted group was denser than that in the Blood clot and A-PRF group.







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## **E-POSTER PRESENTATIONS**

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**P-001****Iatrogenic Displacement of Mandibular Third Molar Crown into Lateral Pharyngeal Space**

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Accidental tooth or root displacement is a rare complication and can occur during extraction of impacted molars. Displacement of a mandibular third molar into the sublingual space, submandibular space, pterygomandibular space, cervical spaces in the neck has been reported. A 27-year-old male patient was referred to the Department of Oral Surgery, GATA Haydarpaşa Teaching Hospital, Istanbul, Turkey, complaining of discomfort during mouth opening. According to patient's history, patient was told by an oral surgeon that a crown of an impacted third molar was dislodged into a soft tissue during surgery and it was recovered in the same surgery. 6-month later during the regular dental check-up, dentist noticed the displaced tooth crown. In fact, accidentally dislodged crown of an impacted third molar during first surgery had never been recovered at the first place. The displaced lower third molar's crown was localized to the lateral pharyngeal space utilizing axial computed tomography. The recovery of the unintentionally displaced crown was performed under general anesthesia setting. The postoperative course was uneventful. This report describes the recovery of a mandibular third molar crown from the lateral pharyngeal space after an iatrogenic displacement that occurred at different center.



## **P-002** **Complications Sinus Lifting**

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A key to implant success is the quantity and quality of the bone where the implant is to be placed. the upper back jaw has traditionally been one of the most difficult areas to successfully place dental implants due to insufficient bone quantity and quality and the close proximity to the sinus. if you are bone in that area due to reasons such as periodontal disease or tooth loss, you may be left without enough bone to place implants. sinus lift surgery can help correct this problem by raising the floor and developing bone for the placement of implants. several techniques can be used to raise the sinus and allow for new bone to form. in one common techniques, an incision is made to expose the bone. before treatment all patients were clinically and radiography examined panoramic radiography and computed tomographu scanning is selected cases. available bone volume, bone quality and anatomy and any existing sinus pathology. the most common surgical complication is the perforation of the schneiderian membrane it occurs in %7 to %35 of sinus floor elevation procedure. membrane perforation, according to the literature are strongly associated with the appearance of posoperative complication and consist mostly of acute or chronic sinus infection bacterial invasion, swelling and bleeding wound dehiscence, loos of graft material and disruption of normal sinus physiologic function. perforated management of membrane perforation is not clearly defined in the literature various surgical techniques to overcome this perforation include suturing, and use of a fibrin adhesive. small perforations usually do not need treatment. because the membrane folds on itself during the elevation. however large perforations are usually manage using bioabsorbable membrane.

**P-003****Adenomatoid Odontogenic Tumour: A Case Report**

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Adenomatoid odontogenic tumor is a rare tumor comprising of 1% of all jaw tumors benign (hamartomatous), noninvasive lesion with slow but progressive growth. The 3 variants--follicular, extrafollicular and peripheral--present with identical histological findings. This report describes a 9 years old female patient with a adenomatoid odontogenic tumour in the mandible which was detected during routine examination for orthodontic treatment. The paper also provides a refresher for general dental practitioners about various diagnostic aspects of this tumor and highlights the controversies regarding its origin and management in light of recent findings.



**P-004****Pleomorphic Adenoma of Hard Palate: A Case Report**Mehmet Zahit Adisen<sup>1</sup>, Fethi Atıl<sup>2</sup>, Melda Mısırlıoğlu<sup>1</sup><sup>1</sup>Kırıkkale University, Faculty Of Dentistry, Department Of Oral and Maxillofacial Radiology<sup>2</sup>Kırıkkale University, Faculty Of Dentistry, Department Of Oral and Maxillofacial Surgery

**Objective:** Pleomorphic adenoma (PA) is a benign tumor of the salivary glands that has elements of both epithelial and mesenchymal tissues. The tumor most commonly arises in the parotid or submandibular glands. Infrequently, it may arise from the minor salivary glands localized in the hard palate and other parts of oral mucosa. This paper describes diagnosis and removal of a PA of hard palate.

**Methods:** A 22-year-old female patient presented to our clinic with a chief complaint of painless swelling at hard palate for the past 3 months. The patient had no relevant systemic conditions. On intra-oral examination there was a firm, non-tender, circumscribed erythematous lesion in the right side of hard palate. There was no regional lymphadenopathy and all teeth were vital. Radiographic examination showed no involvement of bone or periosteum. In differential diagnosis, soft tissue tumors such as fibroma, lipoma, as well as other salivary gland tumors were considered.

**Results:** Excision of the mass was performed under local anesthesia. Excised mass was sent for histopathological examination which confirmed it as PA of the hard palate. Patient was followed up at monthly intervals up to 1 year with no signs of recurrence.

**Conclusions:** Since the majority of malignant neoplasms arise from minor salivary glands, it is therefore advised to evaluate the patient, note the detailed history and investigate the case radiographically and histopathologically. Postoperatively patients should be kept under observation for longer durations, as it is known to reoccur even after several years of initial excision.

**P-005****Diagnosis and Removal of Forgotten Suture Needles,  
Report of Two Cases**

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**Objective:** Foreign materials may be left inside the patient's body while surgical operations. This paper describes diagnosis and removal of two cases of forgotten needles with the aid of cone-beam computed tomography (CBCT).

**Methods:** Two male patients aged 27-year-old and 49-year-old were referred to the Oral and Maxillofacial Radiology Clinic with different complaints in separate time periods. In their routine panoramic examination crescent-like radiopaque foreign objects were detected incidentally. The first patient's medical history revealed that he had a tonsillectomy operation 7 years ago. Since then he had no symptoms except for a slight pain in swallowing. In the second case, it was learned that the patient had partial maxillectomy for treatment of Ewing sarcoma 30 years ago. CBCT images were captured from both patients to detect exact localization of foreign bodies.

**Results:** In CBCT examination foreign bodies were identified as forgotten suture needles after surgical operations. Foreign bodies were removed with intra-oral surgical approaches under local anesthesia with the aid of 3D images.

**Conclusions:** Proper diagnosis using history and radiographic examination should be made for retrieval of foreign materials. However determining the position of a needle could be difficult with routine panoramic radiographs that do not provide 3D orientation. We suggest CBCT imaging in detection and removal of foreign bodies in such cases.



## P-006

**Clinical and Radiographic Diagnosis of Osteochondritis Dissecans in Temporomandibular Joints**

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**Objective:** Osteochondritis dissecans (OCD) is a term used to describe the separation of an articular cartilage subchondral bone segment from the remaining articular surface. Although the cause is not certain, possible causative factors include focal microtrauma, abnormal ossification, genetic and endocrine factors. As a general rule, OCD usually occurs at the weight-bearing convex cartilage. It is most frequently reported in the large joints of the body, including the knee, elbow, hip, wrist, and ankle. Involvement of the temporomandibular joint (TMJ) is rare. OCD can be either entirely asymptomatic or symptomatic with the presence of locking, swelling, and limitation of jaw movements. In this report we evaluated a case of OCD in TMJs by panoramic radiography and cone-beam computed tomography (CBCT).

**Methods:** A 43-year-old female patient complaint of pain in the right TMJ. The patient had no relevant systemic conditions but she had a history of trauma at TMJ 5 years ago. In her clinical examination, limitation of mandibular movements and clicking sound in right TMJ was detected. Moreover the right TMJ was sensitive to palpation.

**Results:** Panoramic radiograph revealed radiopacities (loose bodies) anterior to mandibular condyle on the right side. The CBCT scan detected irregular type radiopaque lesions on anterior and superior aspects of the right condyle. Patient was referred to the Department of Oral and Maxillofacial Surgery for biopsy and treatment and to MRI for advanced imaging, however she declined surgical intervention.

**Conclusions:** The CBCT images revealed degenerative osseous changes and loose bodies on TMJs. The lesions were diagnosed as OCD with the help of trauma history, as well as clinical and radiographic findings.

**P-007****Detection And Removal of A Large Sialolith in Stensen Duct, A Case Report**

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**Objective:** Salivary stones also termed sialolithiasis usually form in the duct of the submandibular gland and less commonly the parotid gland. Although they may be asymptomatic, obstruction of salivary excretory duct may result with dilation and painfull swelling in glands. The present study reports a case of large sialolith detected in duct of parotid gland (Stensen Duct) by panoramic radiography and sialography.

**Methods:** A 37-year-old male patient referred to Department of Oral and Maxillofacial Radiology complaining of intermittent pain and swelling at right mandibular ramus area. In intraoral examination swelling and pus drainage was detected at orifice of stensen duct. Panoramic radiographic examination revealed an ovoid radiopaque mass at right upper molar area separated from the bone. Thereupon a sialography with UROGRAFIN %76 50ml flacon was performed in order to determine the exact localization of sialolith in salivary excretory duct. The plain radiographic series included a panoramic and a lateral oblique view. Localization of calcification was observed at the orifice of the duct and an intraoral surgical approach was planned for removal of the sialolithiasis.

**Results:** A-11 mm-calcification was removed under local anesthesia with surgical excision at orifice of Stensen duct. Patient's symptoms disappeared in a week after surgery.

**Conclusions:** The purpose of this paper is to discuss the imaging modalities for detection of calcifications in major salivary glands to assist dentist in preoperative surgical planning.

**P-008****Incidental Diagnosis of An Antral Exostose / Antral Projection**

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**Objective:** The outward growths of bone into the maxillary sinuses are called antral exostoses. They frequently seen on the floor of the maxillary sinus. They are usually single, but may be multiple. The aim of this report is to describe an idiopathic and rare case of antral exostosis diagnosed with cone-beam computed tomography (CBCT).

**Methods:** A-54-year-old male patient was referred to the Oral and Maxillofacial Radiology Clinic. In his routine panoramic examination a single, radiopaque ovoid structure was detected incidentally at left maxillary sinus. The patient had not reported any symptoms of pain, discomfort, or signs of sinus inflammation. In differential diagnosis of the lesion, maxillary antrolith, mucous retention cyst and antral exostoses were considered. CBCT images were captured to evaluate the internal composition of the lesion and relations with the surrounding anatomical structures.

**Results:** On CBCT images, radiopaque mass was attached to alveolar bone. On coronal slice images it was detected that the inner part of the lesion contains medullary bone and the outer portion of the lesion was continuous with surrounding cortical bone. A final diagnosis of exostosis was made with the aid of CBCT images.

**Conclusions:** CBCT is a very useful diagnostic tool in dentistry to identify anatomical variations and maxillary sinus injuries. Frequently, it is possible to observe incidental findings in maxillary sinus, including bone alterations, mucosal thickness, fluid levels, and the position and shape of ostium, among others. Hence we suggest CBCT imaging for differential diagnosis of suspicious lesions in paranasal sinuses.



**P-009****Peripheral Brown Tumors Caused by Hyperparathyroidism**

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**Objective:** Brown tumor is one of the bony complications of hyperparathyroidism. It represents the terminal stage of the bone remodeling processes occurring as a result of peritrabecular fibrosis and osteoclastic activity. The mandible is the predominantly affected site in the maxillofacial area. Maxillary involvement is rare. Here, a rare case of an 18 year old female patient with brown tumor in both jaws was discussed.

**Methods:** A 18-year-old female referred to our department with complaint of a painless swelling in the mandibular lingual side which initiated four months ago and enlarged up. She had renal failure in medical history. In radiographic examination a unilocular radiographic lesion was detected. Differential diagnosis of giant cell tumor, giant cell granuloma, aneurysmal bone cyst and brown tumor was considered. However in second visit for biopsy, a new swelling was encountered at upper jaw developed in 3 weeks.

**Results:** Based on clinical, radiographical, histopathological and lab findings, the lesions were diagnosed as Brown tumor resulting from secondary HPT due to underlying chronic renal failure. On the other hand patient's PTH did not reach normal level and surgical operation could not be performed.

**Conclusions:** The importance of different radiological evaluation methods and the consultation between the oral and maxillofacial surgeons, dentists, endocrinologists and radiologists in such cases were emphasized in this study.

**P-010****Incidentally Detected Hemangioma at Soft Palate by MRI**

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**Objective:** Vascular lesions are the most common congenital and neonatal abnormalities. Hemangioma term still continues to be used as a clinical and pathological description of many different types of vascular anomalies. Sixty percent of hemangiomas occur in the head and neck region, usually involving the buccal mucosa, lip and tongue areas. Most are single tumors, but multiple lesions can occur. In this case report we evaluated a rare case of congenital hemangioma at soft palate detected incidentally by MRI.

**Methods:** A 42-year-old female patient consulted to our department with suspicion of median palatal cyst at soft palate detected incidentally by MRI. In her clinical examination, we detected a single lesion in the patient's soft palate, but the patient was not aware of it. The lesion was red in color with a bluish hue, insensitive and painless on palpation.

**Results:** When we examined the MRI images, the high intensity of lesion on T2- weighted images clearly observed. The lesion was diagnosed as hemangioma by clinical findings and MRI.

**Conclusions:** Due to lesions benign characteristics and any discomfort for the patient, no surgical treatment was planned. There was no dimensional changes and symptoms on routine controls.

**P-011****Management of Temporomandibular Disorder (TMD)  
Patients with Osteophyte Formation: Case Series**

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In this case report, four (4) TMD patients with osteophyte formation were presented. Their history, sign/symptoms, investigations, radiographic findings, management and follow-up were discussed.

**P-012****Diagnosis and Treatment of Idiopathic Bone Cavity At Anterior Mandible, Case Report**Mehmet Zahit Adisen<sup>1</sup>, Melda Mısırlıoğlu<sup>1</sup>, Fethi Atil<sup>2</sup><sup>1</sup>Kırıkkale University, Faculty Of Dentistry, Department Of Oral and Maxillofacial Radiology<sup>2</sup>Kırıkkale University, Faculty Of Dentistry, Department Of Oral and Maxillofacial Surgery

**Objective:** Idiopathic bone cavities (IBCs) are benign osseous pseudocysts of unclear etiology. The mandible is a very common location, although it may occur in any bone of the body. The most frequently proposed theory for the development of IBC involves a traumatic event that leads to intraosseous hemorrhage, blood clot liquefaction, and further formation of a cavity. This paper describes diagnosis and treatment of an incidentally detected IBC in an orthodontic patient.

**Methods:** A 15-year-old female patient presented to our department for routine dental examination. In her panoramic radiograph a large unilocular radiolucent lesion at anterior mandible was detected. In her medical history, no relevant systemical conditions were present, but dental anamnesis revealed that she had finished an ortodontic treatment 6 months before. When we examined her previous panoramic radiography taken 4 years ago before the treatment, there were no signs of lesion at anterior mandible. In clinical examination, all teeth related to lesion area was vital and there was no expansion in mandible. In CBCT images there was no cortical perforation in mandibular bone and external resorption in anterior teeth.

**Results:** In surgical exploration, an empty cavity without any fluid or blood was detected. Curettage of the bony walls was performed to serve as both the diagnostic purpose and as the definitive therapy by producing bleeding in the cavity. Bone healing occurred within 5 months after the surgical procedure.

**Conclusions:** In the present case, there was a possible association with previous ortodontic treatment of the patient. Because there were no signs of IBC in previous panoramic radiography. The clinical presentation at the time of the surgical exploration is almost pathognomonic for IBCs. The finding of an empty or semi-empty space will prompt surgical curettage of the lesional bony walls to initiate bleeding. Bleeding into the lesion subsequent to surgery or produced by curettage of the walls leads to organization of a clot and new bone formation.

**P-013****Effective Management of a Large Radicular Cyst with Surgical Enucleation**

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The periapical cyst arises from epithelial remnants stimulated to proliferate by an inflammatory process originating from pulpal necrosis of a non-vital tooth. This condition is usually asymptomatic but can result in a slow-growth tumefaction in the affected region.

Radiographically, the classic description of the lesion is a round or oval, well circumscribed radiolucent image involving the apex of the infected tooth. Treatment depends on patient age, cyst dimensions, and proximity of the cyst to critical anatomic structures and usually involves enucleation or marsupialization.

Piezosurgery devices are used during dental implant surgery, mainly to prevent perforation of the delicate sinus membrane.

The enucleation of jaw cysts involves problems similar to those encountered in sinus membrane elevation, which suggests that ultrasonic piezosurgery devices may also be used to elevate the cyst membrane in such procedures.

Here is one such case of radicular cyst that presented as swelling which was well managed through surgical approach.





## P-014

**Case Report of A Fractured Dental Root in  
The Maxillary Ostium**Burcu Başı<sup>1</sup>, Vugar Asif Gurbanov<sup>1</sup>, Elchin Bedelov<sup>2</sup>, Anar Ebilov<sup>1</sup><sup>1</sup>19 Mayıs University Dentistry Faculty Department of Oral and Maxillofacial Surgery<sup>2</sup>Istanbul Aydın University Dentistry Faculty Department of Oral and Maxillofacial Surgery

The expulsion of upper molar teeth root fragments into the maxillary sinuses during dental extraction is not a common occurrence, however it is known to happen occasionally. This is owed to the close anatomical proximity that is shared by the floor of the maxillary sinuses and the apical roots of the upper molar teeth. In most cases the root remains within the inferior sinus, either on the floor of the antrum or within the body of the sinus. It is rare to find the root within the ostium - only three such cases have been reported in the literature. Furthermore it is interesting to note that in our case the patient was asymptomatic despite radiological and intraoperative evidence of a near completely mucus filled left maxillary sinus. In the case presented above, it is hypothesised that the mucociliary clearance mechanism of the epithelial lining of the sinus, negative inspiratory pressure and head movements were responsible for the migration of the tooth root superiorly towards the ostium. This resulted in the root fragment being lodged at the ostium, allowing a mechanical obstruction of mucus drainage to ensue, thus explaining the CT and intraoperative findings. The tooth or the root can be displaced into the maxillary sinus if the wrong surgical technique is used. The most common causes of such displacement are excessive apical force and poor surgical technique. In general, either the root or the entire tooth can be removed using a Caldwell-Luc procedure under local anesthesia. Early recognition and the proper management of complications will minimize consequences such as maxillary sinusitis. Conclusion Displacement of root fragments into the maxillary antrum during dental extraction uncommon. In the vast majority of cases, the displaced fragment remains on the floor of the maxillary sinus or within the body. In rare cases, the fragment may migrate to and thus block the ostium, leading to potential complications such as sinusitis.

## P-015

**A Case Report: Medication-Related Osteonecrosis of Jaws on Maxilla**

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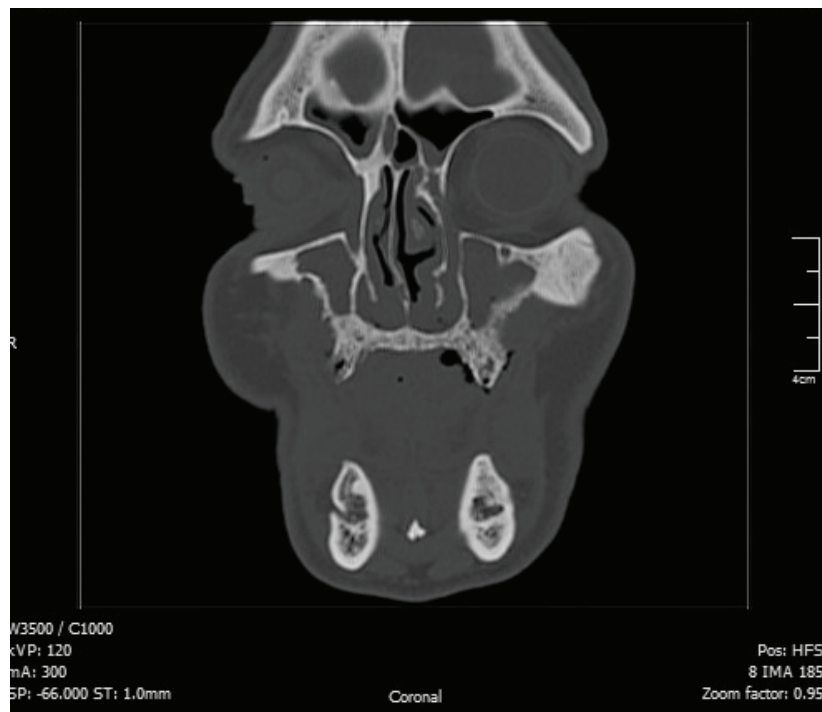
A 62 year-old male patient with type II diabetes was referred to our clinic with the main complaint of non-healing soft tissue wounds and exposed bone tissue following tooth extraction on maxillary left and right bicuspid areas. Pain and halitosis were present as well. Patients anamnesis has revealed a total nephrectomy surgery of left kidney in 2012 due to renal carcinoma, 7 sessions of radiotherapy, 6 sessions of chemotherapy and use of Prednisolone 16 mg per day for 6 months orally. In 2013, the patient was diagnosed with liver and bone metastasis and underwent Bisphosphonate (Zometa 4 mg IV) and Oktreotid (Sandostatin 0,1 mg IM) therapy. The patient smokes more than 10 cigarettes daily. Patients intraoral examination, a six unit bridge anchoring teeth number 13, 21, 22, 23 (FDI numeration system) and a removable denture resting on the bridge were present. In maxillary premolar region, bilateral exposed bone areas approximately 2cm<sup>2</sup> in size and pus drainage were observed. Mandible was edentulous. According to AAOMS Medication Related Osteonecrosis of the Jaw (MRONJ) classification, presented case was classified as stage 3. Patient had four anterior teeth extractions in the maxilla region due to severe pain during on going chemotherapy with the clearance of his oncologist. Although IV Bisphosphonate therapy was still being carried at the time of extractions, the soft tissue closure occurred without any complications. However, one month later, septicemia occurred, IV bisphosphonate therapy was ceased and the infection was treated with moxifloxacin group antibiotics (Avelox 400 mg tablet). Radiographic examination showed impaired bone repair at the extraction sites of maxillary bicuspid teeth. Patients serum CTX (C-Terminal Telopeptide Test) level was reported as 0,139 ng/ml. The option of surgical debridement of the necrotic tissues was evaluated in consultation with the plastic and reconstructive surgery department. Performed radiographic imaging techniques (CT/ MRI) to detect sound bone borders revealed that necrotic tissues extended until orbita floor. Based on this observation, it was concluded that the patients functional abilities would be extremely impaired following an extensive surgical intervention and therefore proceeding with conservative techniques was recommended.

first intra oral view





computed coronal tomography



computed axial tomography



**P-016****Prosthodontic Rehabilitation of the Edentulous Patient Using All-On-Four Implant Concept: A Case Report**

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**Introduction:** All-on-four concept was developed to rehabilitate edentulous maxilla and mandible with full arch restoration on only four implants. Two placed tilted in the posterior and two placed vertically in the anterior. Tilting of two posterior implant prevent damage to anatomic structures such as mental nerve and maxillary sinus.

**Case Presentation:** Fully edentulous patient referred to our clinic for prosthodontic rehabilitation. During orthopantomographic evaluation severe pneumatisation of left maxillary sinus was observed. All treatment alternatives, such as implant supported fixed prosthodontic rehabilitation after sinus augmentation, implant supported overdenture and all-on-four implant concept were explained with advantages and disadvantages. After patient's request for fixed partial denture with minimal surgical intervention, all-on-four treatment concept was decided for implant supported prosthodontic rehabilitation.

In the first surgery, four implants were placed to the maxilla according to the all-on-four concept. Torque at the placements were lower than 35 N/m due to deficient bone quality of anterior maxilla; therefore, delayed restoration after osseointegration period was decided. In the second surgery, four implants were placed with the same procedure. Patient used temporary removable dentures during osseointegration period. Four months after the placement of implants, permanent hybrid prosthesis to the maxilla and mandible were delivered. Patient was satisfied with chewing efficiency, ability of speaking and aesthetic outcomes.

**Conclusion:** Bone augmentation procedures such as ridge splitting, sinus lifting or autogenous block onlay bone grafting may be expansive and time consuming for patients. In case of bone deficiency in the mandible and maxilla, all-on-four concept should be considered and this treatment modality provides successful outcomes and high patient satisfaction.



**P-017****Squamous Odontogenic Tumor: A Rare Case Report**

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Squamous odontogenic tumor (SOT) is a rare benign odontogenic epithelial neoplasm. The tumor is asymptomatic generally, although it can present with symptoms of pain, tooth mobility and there is no predictable sex or site predilection. The characteristic radiographic appearance is that of a triangularshaped unilocular radiolucency associated with the roots of erupted, vital teeth and has a predilection for the anterior maxilla and the posterior mandible. The histopathologic features of SOT are similar to those of keratinizing variants of ameloblastoma, with keratinocytic differentiation in the tumor mass observed. SOT was first described by Pullon et al. (1975). Since its first description in 1975, less than 50 cases have been identified.

This unusual case presents a A 56-year-old male who refferred for routine dental examination.



**P-018****Piezosurgery in Radicular Cyst Enucleation**

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**Objective:** Radicular cysts are the most common lesions in the oral cavity. Treatment options include enucleation, marsupialization, decompression and curettage. All in these alternatives, enucleation is the standart procedure. When compared with the conventional surgery, piezosurgery is a promising system for safe enucleation. In this report, the use of piezosurgery in the treatment of 6 radicular cyst cases were presented.

**Methods:** The study was accomplished with 6 patients (5 male and 1 female), with radicular cysts in the jaw region. Radicular cysts were localized in the mandibula in 4 patients and in the maxilla in 2 patients. Follow-up was conducted to check for recurrences and ranged from 5 to 12 months.

**Results:** No perforation areas on the enucleated cyst tissue were experienced in any of the patients treated with piezosurgery for osteotomy. No recurrence was observed in any of the cases during the follow-up period.

**Conclusions:** Osteotomy with piezosurgery is an useful technique in cyst enucleation operations that require sensitive manipulation, despite the increase in the length of the overall surgical procedure.

**P-019****Giant Salivary Gland Calculi (GSGC): Report of Two Cases**

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**Objective:** Sialolithiasis or salivary gland duct calculus or salivary stones are the most common pathologies of the salivary gland. Its incidence is approximately %1.2 in adult population. Submandibular glands are effected %80 of the cases. The most common cause of salivary stones are acute and chronic infections. Sialoliths commonly measure between 5 and 10 mm in size. Stones larger than 15 mm in any one dimension or heavier than 1 gram have been classified as 'giant stones' or 'megaliths'. This case report describes two cases of giant sialolith of submandibular salivary gland ductus. Also, a new method is used in these cases. It can prevent obstruction of the salivary gland ductus after the surgical removal of the stone.

**Methods:** Both of the patients were at the same age and gender (51, female). Sialoliths were noticed in routine intraoral examination. Patients had no complaints about the nodules. An occlusal radiograph, panoramic radiograph and CBCT were used for diagnosis. Sialolithectomies were performed with an intraoral approach under the local anesthesia. After the sialolith was delivered out, we placed a catheter that is used for providing vascular access ordinarily, into the Wharton's duct to prevent duct obstruction. Patients followed up for 6 months.

**Results:** At the follow up appointment 6 months postoperatively there were no swelling of the submandibular glands and salivary flows were normal

**Conclusion:** Giant sialoliths represent a major challenge to oral surgeons in the choice of surgical approach to prevent excision of the gland and possibility of hypoesthesia and dry mouth. The surgical approach for removal of sialoliths should be minimized gland morbidity. Intraoral surgical treatment should be preferred. The purpose of this treatment is to restore normal salivary flow. Salivary obstruction for long periods can cause fibrosis and atrophy of the affected gland. Giant sialoliths should be removed even when asymptomatic to prevent complications.

**P-020****Chondroblastoma of the TMJ: Case Report**

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<sup>3</sup>Azerbaijan Medical University Department of Patholoji

Chondroblastomas are rare tumors. They are typically located in the epiphysis of long bones and are most commonly seen between the ages of 15 and 20, although a typical locations such as the pelvis and thorax are seen in older patients. It is very rare in craniofacial bones accounting 6.4% of all chondroblastomas. Chondroblastoma usually offers in the second decade of life, with a 2:1 male predominance, and causes localized swelling and pain that is managed with surgical resection and reconstruction.

Tumors of the temporomandibular joint (TMJ) are rare. Chondrogenic tumors of the mandible are extremely uncommon; further, it has been reported that chondrogenic neoplasms are far more often malignant than they are benign.

Chondroblastoma was first characterization in detail in 1931 by Codman who reported 9 cases of an entity that he mentioned to as "giant cell chondromatous tumor of the epiphysis". Radiographically, the lesion typically presents as a round-to-ovoid expansive radiolucency. Microscopically, the tumor cells resemble chondroblasts, chondroid foci are frequently observed, and multinucleated giant cells are often present. The tumor usually arises in the squamous portion of the temporal bone and affects the floor of the middle cranial fossa and temporomandibular joint.

Chondroblastoma is histologically benign, but is clinically aggressive. A complete surgical resection of the tumor is the gold standard for manegement.

We describe one case of chondroblastoma is located in the temporomandibular region.

**P-021****Adenomatoid Odontogenic Tumor of the Maxilla:  
Case Report**

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<sup>2</sup>Eskişehir Osmangazi University, Faculty of Medicine, Department of Pathology, Eskişehir, Turkey

**Objective:** To present a rare case of adenomatoid odontogenic tumor in the maxilla.

**Methods:** A radiolucent cystic lesion associated with left maxillary impacted canine tooth in the routine radiographic examination of 13-year-old male patient who is under orthodontic treatment. Surgical exposure of impacted left maxillary canine tooth was planned to establish the proper orthodontic alignment of the maxillary teeth. The canine tooth was surgically exposed and incisional biopsy was performed under local anesthesia.

**Results:** Histological examination confirmed the diagnosis of adenomatoid odontogenic tumor. Patient was re-operated for the complete excision and removal of the related impacted canine tooth. The clinical and radiographic healing was uneventful and satisfactory at postoperative 3rd month.

**Conclusions:** Adenomatid odontogenic tumor is generally associated with impacted canine teeth and incisional biopsy of the cystic lesion should be performed at the time of the canine exposure for orthodontic purposes, to exclude any other pathologies.

**P-022****Osteosclerosis Resulted from Uncontrolled Mastication in The Mandible: A Unique Case**

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**Objective:** To present a unique case of osteosclerosis of mandibular angulus resulted from the mastication force of opposite displaced maxillary molar teeth.

**Methods:** Forty-five years old male patient referred to our clinic with a chief complaint of pain on his right jaw. Clinical examination revealed white keratotic patches on right retromolar region and occlusally displaced right maxillary molar teeth. Radiographic examination revealed radiopaque sclerotic lesion located on the right mandibular angulus. There was also sclerosis on cortical upper rim of the mandible. Right maxillary teeth were on close contact with the edentulous right mandibular mucosa and bony ridge during chewing. Incisional biopsy specimen was taken from white keratotic plaque.

**Results:** Histological examination revealed epithelial hyperplasia without any evident dysplastic transformation. No biopsy for the confirmation of bony sclerosis was needed. A diagnosis of epithelial hyperplasia and osteosclerosis resulted from mechanical irritation was made. Patient can not be persuaded for the extraction of the irritating displaced molar teeth and lost to control.

**Conclusions:** Mechanical masticatory irritation produced by opposed displaced teeth may provoke preventive mechanisms such as epithelial hyperplasia and osteosclerosis in oral mucosa and jaw bone. Clinicians should be aware of traumatic factors which may be causes of oral keratosis and jaw bone osteosclerosis.



**P-023****Treatment of the Rarefying Osteitis in Renal Failure:  
Presentation of a Case with 2-Year Follow-up**

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**Objective:** To present the treatment of a case of rarefying osteitis accompanying kidney failure caused by rapid progressing glomerulonephritis.

**Methods:** Radiolucent lesions associated with teeth #11,12, 21, 22, 41, and 42 were incidentally observed when radiographic examination of 23-year-old male patient. Patient had no symptoms, and medical anamnesis revealed that patient had been on corticosteroid medication with a diagnosis of rapid progressing glomerulonephritis for 8 years. Advanced endodontic treatments were performed to the mentioned teeth and apical resection of teeth #22, 23, and 42 was performed under local anesthesia.

**Results:** Histological examination confirmed the diagnosis of periapical granuloma. Patient was taken in follow-up periods. There was no recurrence at 2-year follow-up control.

**Conclusions:** Kidney diseases are in close relation with jaw bone pathologies. Medical anamnesis is important to understand and apply the suitable treatment for the teeth-related pathologies.



## P-024

**Injection of Botulinum Toxin-A for Treatment of Benign Masseteric Muscle Hypertrophy**

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**Objective:** Benign Hypertrophy of masseter muscle is a rare disorder of unknown cause. It is associated with emotional disorders, TMJ disorder, congenital and functional hypertrophies, habit of chewing gum. (1) Botulinum toxin (BoNT) is a potent neurotoxin that is produced by the gram-positive, spore-forming, anaerobic bacterium, *Clostridium botulinum*. The action of BoNT to block the release of acetylcholine botulinum toxin at the neuromuscular junction. (2) Many studies have found that Botox have paralytic effects and minimal diffusion effects on surrounding musculature. (3) Botulinum toxin-A (Botox) is a useful tool for the cosmetic reduction of the bulk and volume of the masseteric muscle, it can be administered in such a way as to control the degree of reduction and control whether the upper or lower half of the muscle is to be narrowed in accordance with the patient's wishes. (4) The intent of this case was to use bilateral BoNT/A injections to reduce masseter hypertrophy.

**Methods:** A 17- year-old male was complaining of bilateral bulging in the region of the mandible angle, on anamnesis he was not complaining of pain but facial aesthetic. We noticed bilateral masseter hypertrophy without local inflammation in his physical examination. The recommended dose is 5-10 units per time, and some studies also suggested a dose of 20-40 units per time. The dose of BoNT/A is individualized to the patient, and many other factors such as muscle size and activity should also be taken into consideration. (5) A 30 Gauge needle was preferred. BoNT/A (Botox, Allergan, Irvine, Calif) was injected. Each vial of 100 units of BoNT/A was reconstituted with 1cc of normal saline solution, yielding a preparation of 1 unit per 0.01cc. At first 6 IU of Botox were injected bilaterally to the masseters, each at two separate spots that were 2 cm apart. the next application was performed 6 months later. This time we injected at two separate spots 10 IU each.

**Results:** We observed a significant decrease in masseter muscle tone and hypertrophy after the second application of Botox, without pain and loss of function.

**Conclusions:** Botulinum toxin A therapy to treat the square jaw because of masseter hypertrophy is more painless and have minimum complications than surgery. It has had a striking impact on clinical application as it has provided a powerful and new implement for therapeutic and medical assistance.

**P-025****Correction of Maxillary Hypoplasia in an Adult Patient with Unilateral Cleft Lip and Palate by Using Maxillary Distraction Osteogenesis**

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**Objective:** The aim of this case report is to present maxillary distraction osteogenesis using intraoral devices to correct maxillary hypoplasia in a patient with unilateral cleft lip and palate.

**Methods:** An 18-year-old female patient presented with unilateral cleft lip and palate. The patient had a narrow and retrognathic maxilla with 4 mm open bite. Additional oral findings included a dental class III relationship with two missing maxillary incisors and an impacted maxillary incisor. The treatment started with maxillary expansion and then continued with the leveling of maxillary and mandibular teeth. Internal distractor was adapted to the 3D maxillary model of the patient preoperatively. An acrylic splint was fabricated before the surgery to prevent medial deviation of maxillary lateral segments. Le Fort I osteotomy was performed and an internal distractor was placed. Distraction was continued for 30 days at a rate of 1 mm/day. The consolidation period was intended to last for 2 months. However the distractors were removed within the first month after distraction due to severe laceration that occurred at the commissures bilaterally. The impacted teeth was extracted during the removal of distractors.

**Results:** At the end of the distraction period, correction of skeletal class 3 relationship was observed and concave profile was eliminated as a result of significant maxillary advancement. The elevation of the nostril and increase in the nasolabial angle was observed.

**Conclusions:** Correction of skeletal discrepancy and improvement of occlusal functions and facial aesthetics can be efficiently realized with maxillary distractor osteogenesis using internal distractor in cleft lip and palate patients.

**P-026****Inactive Implant Periapical Lesion:  
A Case Report**

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**Objectives:** Implant periapical lesion (IPL) has been described as an inflammatory lesion involving the apical portion of a dental implant. IPL has been reported to interfere with the osseointegration process, and progression of the lesion may cause implant failure. Diagnosis of IPL is based on clinical signs such as pain, tenderness, swelling, and fistulous tract formation; radiographic findings such as periapical radiolucency may also be present. When the radiographic findings are not associated with clinical symptoms, it is considered to be inactive and no treatment is needed if they remain stable in the periodic follow-ups. On the other hand, active infected lesions are expansile and grow by time. Active lesions are also capable of spreading coronally or laterally, and they are usually accompanied by clinical symptoms. In this presentation an inactive IPL case which heals simultaneously after prosthetic loading is presented. In addition, possible etiology and treatment options of IPL cases will be discussed.

**Methods:** A 72 year-old male patient had 3 dental implants in the anterior mandible. At the time for prosthetic rehabilitation one of the implants showed an implant periapical lesion which had no clinical symptoms but only radiographic image. Being an inactive IPL the lesion was left in place and prosthetic restoration completed.

**Results:** After 1 year follow up the lesion was regressed simultaneously after prosthetic loading.

**Conclusion:** IPL is a complication of dental implants which causes implant failure. Its treatment depends on its type so diagnosis is important for successful treatment.

**P-027****Case Report: Incident Finding of A Thornwald's Cyst  
Mimicking TMJ Disorder**

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**Objective:** Thornwald's cyst is a relatively rare and benign lesion, attached to the posterior wall of the nasopharynx. It is superficial to the superior constrictor muscle and covered by the nasopharyngeal mucous membrane. It may result from a mechanical obstruction or inflammation of the pharyngeal bursa, which is a persistent embryonic communication between the roof of the nasopharynx and the notocord. The aim of this case report is to describe a incidental finding of a Thornwald's cyst and discuss the differential diagnosis for this condition.

**Methods:** A 24-year-old male patient was referred to us with the complaint of a painful in his left temporomandibular area. For clinical examination the patient was imaged using panoramic radiography, TMJ radiography and physical examination showed painful mouth opening, tenderness on palpation of the left TMJ and also anamnesis revealed bilateral frontotemporal headaches. The skin covering the mass was normal. However, in order to have a definite picture, a cone beam computed tomography and magnetic resonance imaging were applied.

**Results:** Osseous degenerations were detected by panoramic radiography that was superposed at the left mandibular condyle 3D MDCT reconstructions was taken and a precise location of the resorptions of the condyle was made. Following, MR imaging demonstrated high signal intensity areas at the middle nasopharynx plane on T2 images which was diagnosed as incidentally found Thornwald cyst.

**Conclusion:** Treatment of the lesion was made occlusal splint for TMD and follow-up for the cysts which normally requires no treatment. It should be stated that maxillofacial pain related with/out TMD can mimic other lesions such as in this case report. the surgeon should be vigilant against the incidental findings in routine radiographic examination.



**P-028****Removal of Deeply Impacted Tooth with Modified Techniques: Buccal Corticotomy and Bone Lid**

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**Introduction:** Eruption of permanent teeth can be delayed in consequence with genetic factors, persistant primary molars or cyst formation. Those teeth may erupt with orthodontic traction but root dilaseration or ankylosis effect on this treatment. Removal of deeply impacted teeth are a challenge terms for absence of bone support and neurosensorial damage. Many studies were reported on impacted molar removal with minimal bone loss and without nerve injury as sagittal split, bone lid, lingual and buccal corticotomoy. In one case, deeply impacted mandibular first molar was removed with buccal corticotomy and in the other case, deeply impacted mandibular first molar was removed with bone lid.

**Case presentation:**

**Case 1**

A 15-year-old boy was referred for removal of deeply impacted mandibular first molar which was irresponsive to any orthodontic force and occlusal relation has not been established. On computed tomography, deeply impacted tooth relation with inferior alveolar nerve and the proximity of the mandibular basis were examined. Buccal corticotomy technique was chosen. Mucoperiosteal flap was elevated under local anesthesia. With piezoelectric device, horizontal seperation was created on the alveolar crest. Then, two vertical seperations were made on the buccal wall to avoid fracture while the bone was bended with chisel and mallet. After, buccal bone was splitted, tooth was removed. The separated bone was repositioned. The patient was followed up on panoramic radiography during six months. In this period, any resorption on buccal bone wasn't seen. Also, the patient has not complained about pain, swelling or sensorial damage as paresthesia, dysesthesia or anesthesia.

**Case 2**

A 23-year-old female was referred for extraction of impacted mandibular first molar and implant surgery. The clinical examination revealed that this teeth was exposed lingual part of alveolar crest and cortical bone. On computed tomography sufficient height and width of the buccal bone was examined. With bone lid technique, one horizontal and two vertical seperations were made on the buccal wall by seperation drills then the bone was removed. After the extraction, the bone lid was repositioned with two mini screws.

**Conclusion:** Removal of deeply impacted teeth can be challenging about the proximity relation with anatomical structures. Also, removal of the bone around the impacted teeth can enhance the risk of fracture, that progress weakens bone structure. Therefore, those techniques are important for the protection of bone structures and nerve damages. In addition, rehabilitation of extraction socket can be easily done.



## P-029

**Posterior Mandibular Horizontal Ridge Augmentation  
With Simultaneous Dental Implant Placement Using  
Autologous Fibrin Glue As The Sticky Bone**

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**Introduction:** Inability of alveolar ridge width is effective on successful dental implant placement. Bone augmentation is essential to expand horizontally defect on the alveolar ridge. Numerous augmentation techniques was introduced to create effective bone volume especially supporting platelet-derived methods. Platelets contain the growth factors which provide cell proliferation and angiogenesis. Several methods have been introduced for utilizing platelets and fibrinogen concentration such as platelet rich plasma (PRP), platelet rich in growth factor (PRGF) for first generation and platelet rich fibrin (PRF), concentrated growth factor (CGF) for second generation. In current studies, second generations are mostly used to induce tissue and bone healing. In addition, PRF and CGF can not stabilize the bone material as particulate or powder. In 2010, the authors introduced 'sticky bone' to stabilize the bone substitutes. It is a biological material to confine the fibrin bending in bone graft. This report presents the use of sticky bone in posterior mandibula with simultaneous dental implant placement.

**Case presentation:** A 45 year old female patient was referred for implant placement depending on the chewing and esthetic difficulty. Clinically, although keratinized tissue was appropriate, the amount of alveolar bone was doubtful. Radiographic examination revealed horizontal alveolar ridge deficiency on the right and left edentulous posterior mandibula. Before the surgery, the patient's blood was taken from patient's forearm and collected into non-coated yellow cap two test tubes. Then, both of them are centrifuged at 2400-2700 rpm during 2 minutes. Mucoperiosteal flap was elevated on both of edentulous areas. After the preparation, three implants were placed at the sites of first and second premolars with second molars. Test tubes were removed from the centrifuge device. Two layers to be upper and bottom were seen. The upper layer was autologous fibrin glue which was used to make sticky bone. This layer was obtained with syringe and mixed with particulate bone. Then, all the exposed implant surfaces was grafted and flap was replaced. After six months following the surgery, favorable horizontal ridge augmentation was observed on the both side.

**Conclusion:** Sticky bone is introduced as an alternative method on bone augmentation that would be against the titanium mesh or block graft. This biologic material is determined to new bone formation with autologous fibrin glue formation which inhibits soft tissue migration and includes the specific growth factors. Besides, it will be formed according to defect and maintenance of the bone volume, sticky bone manufacture is easy. In addition, future studies are needed.

**P-030****Giant Cell Reparative Granuloma in Edentulous Mandibula: A Case Report**

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**Introduction:** Giant cell reparative granuloma (GCRG) is a solitary bone tumor in head and neck region with unclear etiology. Although it is a benign nonodontogenic tumor, it can locally be destructive. GCRG is a rare bony lesion that accounts for 1%-7% of all benign lesions of the jaw. It often arises in women, the incidence is highest in the 2nd and 3rd decades of life. Head and neck involvement frequently seen in mandible and maxilla especially in the anterior region of jaw. Depending on the location of the lesion involvement; clinical symptoms such as localized swelling, pain, bleeding, nasal obstruction, epistaxis and displacement of teeth can be observed. This report describes the diagnosis and treatment of a rare case of giant cell reparative granuloma which has a great dimensions of lesion in a geriatric, edentulous female with a fracture in anterior mandibular region. In this report attention has been focused on the dental findings at computed tomography and surgical treatment.

**Case Presentation:** A 68-year-old edentulous female presented to our department with a 1-month history of an expanding swelling in the anterior region of mandible and complaint of inability to use existing prostheses. Clinical evaluation revealed a mandibular asymmetry of the right mandibular body and there was no associated cervical lymphadenopathy. Panoramic radiography showed a well-defined radiolucent lesion. On cone beam computed tomography, the axial and cross-sectional images showed expansion and perforation of the buccal and lingual cortical plates with a fracture line. Surgery was performed under local anesthesia. The mandible was approached by an intra-oral access and the lesion was excised totally. Due to the fracture line; it was decided to place osteosynthesis plate to the buccal cortical bone in the mandibular anterior region. A straight titanium 2-0 mm miniplate (Synthes GmbH, Switzerland) with 14 holes was pre-modeled and adapted to the buccal cortical bone. After adaptation of the plate, 9 holes were created in the bone and miniplate was then fixed with nine 10 mm screws in the prepared holes. During the adaptation of the plate, attention was paid to the protection of the mental nerve. The enucleated material was sent for histopathologic examination which later confirmed to be a GCRG.

**Conclusion:** This report presents an unusual case of a geriatric female who is in postmenopausal period. Different treatment methods can be use such as non-surgical, surgical or radiotherapy. Although, non-surgical procedures are represented for protection to recurrence and loss of tooth, in some cases that applied radiotherapy treatment, malign transformation of lesion was reported. In this case, since the lesion exist in the area that sustained trauma and risc of mandibular fracture, total excision was performed. After 2 year, the radiologic examination showed no recurrence.

**P-031****Management of Malunited Bilateral Mandibular Condylar Fractures with BSSO: A Case Report**

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**Introduction:** Inappropriate treatments of condylar fractures may result malocclusions, ankylosis, condylar resorption and so on. Malocclusion is often implied secondary to improper treatment, such as inadequate use of occlusal guidance or closed reduction when open reduction is indicated. In case of malunited bilateral mandibular condyle fractures, anterior open bite is the main consequence related to occlusion. For management of these malocclusions temporomandibular joint reconstructions, mandibular osteotomies and orthodontic corrections can be considered as treatment modalities.

**Case:** 26 years old male patient referred to our clinics complaining of pain in the TMJ region during function and inability to chew foods. During clinical examination bilateral posterior premature contacts with anterior open bite was observed. Mouth opening of the patient was not restricted and mandibular movements were nearly normal. Patient informed that trauma was caused by falling from the top of a motor vehicle about 40 days ago. Right after the trauma no treatment was recommended by one of the medical doctor in another hospital. No systemic disease was noted during systemic evaluation. Orthopantomography revealed bilateral condylar fractures and parasymphiseal fracture on the right side. Computerized tomography was obtained for detailed investigation of condylar segment positions and angulations before surgery. Moreover, healed Le Fort II fracture was noted during investigation of computerized tomography. Due to acceptable mandibular movement and bony union of displaced condylar segments, BSSO was decided as the treatment to restore occlusion. Erich arch bars were used during surgery for occlusal guidance and internal rigid fixation was performed for parasymphiseal fracture with bone graft augmentation to the gap in the fracture line.

**Conclusion:** Once bone healing has occurred after condylar fracture, or when it is impossible to reduce and fixate the proximal segment, then management is dependent on condylar function. When a malocclusion occurs in light of good condylar function, mandibular osteotomies are good candidates for management and this treatment modality provides high patient satisfaction and good outcomes.

### P-032

## Marsupialization of Extensive Keratocystic Odontogenic Tumor Using Patient-Customized Devices in a 7-Year Old Child

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**Introduction:** The frequency of odontogenic cysts in children is relatively low. The most common cystic lesions are dentigerous cysts and keratocystic odontogenic tumors (KCOT). KCOT; formerly known as odontogenic keratocyst is a benign odontogenic tumor derived from the dental lamina that requires special surgical consideration because of its aggressive growth and high risk of recurrence. Considering the size of the lesion; decompression or marsupialization should be the first surgical approach and when it gains reduced volume, enucleation has to be performed.

**Case:** A 7-year-old male child patient referred to the Department of Oral and Maxillofacial Surgery clinic with the chief complaint of swelling which was leading to a facial asymmetry on the left side of mandible since last two months. There was no presence of pain or hypoesthesia. Extraoral examination revealed a slight enlargement present near the lower margin of the left mandible. Intraoral examination revealed a hard bone expansion extending from left permanent santral tooth to the left primary mandibular first molar region. Panoramic radiograph showed the presence of an extensive radiolucent cystic lesion with sclerotic border extending from mandibular right first premolar germ region to mandibular left second premolar germ region including the two canines, mandibular left permanent lateral tooth, and first premolar germs in it. Additionally; the radiolucent cystic lesion extended to the lower border of the mandible. Computed tomography showed that vestibular, buccal and lingual bones were intact. After biopsy, considering the size of the lesion and displacement of the permanent tooth germs; marsupialization of the lesion with patient-customized devices for reducing the volume of the lesion and also guiding the eruption of the permanent teeth was performed.

**Conclusion:** Although there is no universally accepted treatment for KCOT, the primary aim of the treatment is eradication of the lesion utilizing an appropriate technique. Protecting surrounding tissues is the most challenging subject because of the aggressive behaviour of the tumor. In pediatric dentistry, the situation is more complicated where there is proximity to the developing permanent tooth buds. According to our opinion large cysts in children could be treated by marsupialization with customized devices in a short time with successful results; because of the active growth potential and remodeling of bone in children unlike in adults where jaw growth is completed.





## P-033

**Surgical and Orthodontic Treatment of a Skeletal Class  
III Anomaly with "The Surgery-First Approach":  
2 Year Follow-up**

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**Aim:** In this follow up case study, treatment of an adult patient having Class III anomaly with the surgery-first approach is explained.

**Case and Method:** 21 year-old male patient had applied with a complain about his mandible being protrusive. In the clinical examination, anterior cross-bite and Class III canine and molar relationships were observed intraorally. The mandible was prognathic and deviated to the right. Pretreatment cephalometric measurements were SNA:77°, SNB:84.5°, ANB:-7.5°, SN.GoMe:34°. Orthognathic surgery was planned to be performed prior to fixed orthodontic treatment. 0.018" slot MBT braces were bonded 5 days before surgery and facebow transfer was performed. 8 mm set-back of the mandible and 5 mm advancement and 3 mm posterior impaction of the maxilla were planned. 0.016" Ni-Ti arch-wires were placed in the day of the surgery. After the surgery canine and molar relationships were end-to-end Class II. Following the recovery period, fixed orthodontic treatment was initiated and a good occlusion were achieved at the end of orthodontic treatment. After the orthodontic treatment fixed retention appliances were applied both maxillar and mandibular arches. Follow up appointments were scheduled 2 times in a year.

**Results:** The mandible was set-back and the maxilla was advanced, an orthognathic profile was achieved with the surgery-first approach. Total treatment duration was 15 months. Follow up duration was 2 years. After 2 year follow up, clinical results were stable except the overbite which decreased 1 mm. Moreover, periodontal status of the patient was good and stable.

**Conclusion:** The Surgery-First approach is an applicable technique; however, careful planning by the orthodontist and the surgeon is needed. Surgery-first correction can be resolved more rapidly and shorten the entire treatment period. Furthermore the follow up results are stable both intraorally and extraorally.

**P-034****Rehabilitation of a Severe Class III Mandibula Edentulous Patient Using 'ALL-ON-FOUR' Concept**

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**Objective:** Recently, to overcome the esthetic, phonatic and functional requirements of the patients 'All-on-Four' treatment concept has been used in dentistry. 'All-on-Four' concept provides the possibility to make fixed and overdenture prosthetics with 4 implants in edentulous patients. This case report represents the rehabilitation of a severe Class III mandible edentulous patient with 'All-on-Four' concept.

**Methods:** 52-year-old, male patient with healthy systemic terms was referred to the maxillofacial surgery of Bulent Ecevit University, Faculty of Dentistry. By clinically and radiographic examination it was determined that his 16, 15, 26 numbered teeth were missed and has edentulous mandible with mandibular prognathism. Fixed partial denture treatment for full arch of the maxilla and implant supported overdenture prosthesis with 'All-on-Four' concept for mandible was planned. Totally four implants; two in the diameter of 3,25 mm and two in the diameter of 3,75 mm; were placed in mandible. Two of implants in anterior were placed straightly and symmetrically in front of the midline, last two implants placed in posterior region, angled 30° distally in front of the mental foramen. Metal ceramic prosthesis for maxilla and overdenture prosthesis for mandible were fabricated. After occlusal adjustments and correction, the restorations were cemented.

**Results:** After 6 months, as a result of clinical and radiographic examinations, not encountered with any complications.

**Conclusion:** Vertical and tilted implants was used at this case. All on four concept implants viable solution for edentulous jaw rehabilitation; however, more long-term prospective clinical trials are needed to affirm the effectiveness of this surgical-prosthetic protocol.



## P-035

**Unicystic Ameloblastoma: Conservative Surgical Approach**Ahmet Ferhat Mısırlı<sup>1</sup>, Burak İrfan İçten<sup>1</sup>, Ülker Karagece Yalçın<sup>2</sup><sup>1</sup>Bülent Ecevit University<sup>2</sup>Special Practice

**Objective:** Ameloblastomas are tumors of odontogenic epithelial origin. The term unicystic ameloblastoma is used to describe cystic lesions with clinico-radiographic features resembling an odontogenic cyst, but histologically showing the presence of ameloblastomatous epithelium lining part of the cyst cavity. A large majority of lesions are found in the mandible, and usually cause a painless swelling of the jaws. The unicystic ameloblastoma is believed to be less aggressive than a solid/multicystic ameloblastoma, and thus has a more favorable response to enucleation and curettage.

**Method:** A 25-year-old woman was referred to our hospital for treatment, complaining of swelling on the right mandibular molar region. Radiographic examination revealed a well defined unilocular radiolucent lesion with root resorption of first molar. X-rays revealed a well-defined unilocular radiotransparency with radiopaque margins at retromolar area. CT scan showed an expansile cystic lesion in the mandible, with expansion and thinning of both buccal and lingual cortices. Lesion was treated conservatively with careful enucleation and curettage.

**Results:** Based on the histopathology of the enucleated tissue, a final diagnosis of a unicystic ameloblastoma. At the time of writing, the patient has had a 3-month follow up check without any evidence of recurrence.

**Conclusion:** Literature considers two different types of intraosseously located ameloblastomas, the solid or multicystic variant and the unicystic form. As described above, the multicystic variety appears as a solid tumor or multicystic as a result of degeneration of central islands of the tumor while, the unicystic form is a single well-defined lesion made up of odontogenic epithelium with ameloblastic appearance and stratified squamous epithelium in remaining areas. Several attempts to classify unicycstic ameloblastoma have been made but there is still some confusion.

**P-036****Congenital Maxillary Double Lip**

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Double lip is a rare oral anomaly caused by hyperplastic tissue of the labial mucosa that becomes more outstanding with tension caused by smiling or mouth opening. A double-lip is an anomaly which may be either congenital or acquired. It occurs most often in the upper lip, although both upper and lower lips are occasionally involved. The surgical treatment options including various excision techniques may be indicated for cosmetic reasons. In the case presented, satisfactory function and aesthetic results were achieved via conventional transverse elliptical incision. Additionally, the development, clinical appearances, and the associated anomalies of this rare entity are briefly discussed.

**P-037****A Case Report: Implant Placement To Advanced Atrophic Mandibular Posterior Region With Simultaneous Otogenous Symphysis Block Graft**

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**Objective:** Mandibular posterior region is one of regions which has a fast resorption after extraction of molar and premolar teeth. If surgeon decides reconstructing this region by dental implants with a fixed prosthesis; at first he or she must recover the resorbed bone volume. This reconstruction may be done by several ways. If resorption is about bone's horizontal volume, alloplastic grafts, xenografts, alloplastic materials such as calcium-phosphate and tri calcium phosphate may be chosen by the surgeon. But if the bone loss has a vertical component these ways not enough for a perfect reconstruction.

**Method:** At reconstruction of vertical bone dimension gold standart graft(otogenous graft) must be chosen for a good healing. This otogenous graft may be harvested from ramus, symphysis and tuberositas maxillae regions. If block graft needed symphysis and ramus regions are preferred mostly.

At this case 53 year old female patient has extremely vertical bone lost at mandibular posterior region especially on the left side. We needed much bone height at graft so we decided symphysis otogenous block graft. We prepared holes at mandibular body and at grafts. After this preperation we inserted 2 tissue level straumann implants simultaneously otogenous symphysis greft to both side and there was no gap between graft and mandibular bone.

**Result:** After 2 years follow up there was any inflammation, infection and mobility evidence at the surgical site. Prosthesis and dental implants were so good at 6 month period check.

**Conclusion:** Symphysis block bone graft and simultaneously vertical bone reconstruction with dental implants is a smart and succesful way to have fixed dental reconstructions at vertical atrophic bones.



**P-038****Dentigerous Cyst Resulted in Ectopia of The Upper Third Molar**

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Dentigerous cyst is a well-defined neoplasm and is usually associated with the crown of an unerupted tooth. Protection of adjacent teeth and over vital structures is the most importance in the management of jaw cyst's treatment.

A 50-year-old man referred to our clinic complaining of swelling on his right cheek and facial pain for 1 years. Facial asymmetry and swelling of the right maxillary region, right gingivobuccal region and right eye base was observed on physical examination. CT scan revealed the presence of a well-defined radiolucency surrounding the crown of a deeply impacted third molar. The upper third was displaced posterior to the maxillary sinus, next to the floor of the orbita. The maxillary sinus anterior wall had been destroyed and the upper third was extremely displaced.

Under general anesthesia, the cyst was removed and the tooth was gently extracted. On the histopathological examination, the lesion was diagnosed as dentigerous cyst. Postoperative follow-up was uneventfull during the last 6 months. There were no signs of recurrence.

Dentigerous cyst is an uncommon pathology in the maxillary sinus. If not treated, cyst may reason pathological fracture, secondarily infection, eye base deformation, nasal obstruction and even metaplastic and dysplastic changes. Therefore, its correct diagnosis and treatment is essential.

**P-039****A Technical Note on The Biopsy Procedure with The Aid of Easy Screw®**

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The "Easy Screw" II by Dr. Georg Bayer is an ergonomically designed and universally applicable insertion instrument. It facilitates, thanks to axially optimized positioning, the manual insertion of implants, fixing screws etc. in the maxillary region. As suggested by the manufacturer, it is ideal for all steps from threading to implant insertion and the screwing in of prosthetics components, and it can be used for all implant systems. In the case presented herein, the handle was used with a 4 mm. biopsy punch to obtain oral mucosal samples in a patient which was previously diagnosed with amiloidosis. Easy screw is a usefull tool in obtaining oral mucosa samples for diagnostic biopsy procedures..

**P-040****Central Odontogenic Fibroma of The Maxilla:  
A Case Report**

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The central odontogenic fibroma (COF) is a rare benign odontogenic mesenchymal tumor of jaw bones. The World Health Organization (WHO) recognizes two variants of COF namely: 1) Epithelial-rich type (WHO) and 2) epithelial-poor type (simple type). Rare variants like ossifying COF, COF associated with giant cell lesions, and amyloid have been documented. This article presents a case of an epithelial-rich variant of COF in a 70-year-old male. It presented as bony and soft tissue swelling of the maxilla and appeared as a mixed lesion in radiographs. The central odontogenic fibroma here reported displayed a prominent quantity of collagen and absence of odontogenic epithelium. The surgically removed lesion had a favourable prognosis.

**P-041****Large Complex Odontoma of The Mandible Resulting in Displacement of The First Molar**

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Odontomas are the most common odontogenic tumors. They are broadly classified in to compound and complex odontomas. Occasionally this tumor becomes large, causing expansion of bone followed by facial asymmetry. Otherwise these tumors are asymptomatic and are generally diagnosed on radiographic examination. Here we report a case of a complex odontoma of mandible in a male patient. The tumor resulted in displacement of the lower first molar to the ramus border. The tumor was treated by surgical excision under general anesthesia. The displaced first molar was extracted.



## P-042

**Management of Denosumab-Related Osteonecrosis of the Mandible: A Case Report**

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The management and the treatment outcomes of MRONJ secondary to denosumab was presented.

A 74-year-old female patient referred to our clinic with the complaints of pain and purulent discharge at the right posterior mandible. The patient had undergone extraction of the lower right second and third molars performed by a general dentist 3 months before this visit. Her medical history revealed type 2 diabetes, hypertension, arrhythmia, hyperlipidemia and osteoporosis. The osteoporosis had been treated with orally bisphosphonate for three years. After orally bisphosphonate treatment, denosumab had been prescribed. The intraoral clinical examination revealed an unhealing extraction wound and septal bone exposure in the lower right second and third molar extraction sites with slight pain. In the panoramic radiograph, the septal bone was observed clearly, but sequestrum was unclear. The patient's endocrinologist was informed of her dental extraction history, and denosumab injection was skipped before surgical treatment of the sequestrum and purulent discharge. Symptomatic treatment with oral antibiotics and chlorhexidine gluconate mouth rinse was prescribed, and the patient was referred for hyperbaric oxygen therapy perioperatively (15 pre-15 postoperative). Sequestrectomy under local anesthesia was performed. The lingual cortex and nonvital bone at the extraction site was gradually removed until only vital, bleeding bone remained. Then, the residual bone was covered with multilayer of platelet rich fibrin. In addition, lower left lateral incisor, canine and second premolar were extracted because of infection.

The bone fragment was sent to pathology for histologic examination, which confirmed the presence of nonvital bone. No clinical complications were observed during the 3 months follow-up period, and the patient referred for prosthetic therapy.

This case report demonstrated that compromised teeth were uneventfully extracted in a patient receiving denosumab, and MRONJ did not occur after tooth extraction. Complete smoothing of the bone edges and secure wound closure in the extraction site are most likely to contribute to the successful results. The proper method of tooth extraction is effective for preventing MRONJ. However, further studies focusing on the effects of PRF and hyperbaric oxygen therapy in MRONJ patients are needed.



**P-043****The Use of Allograft Combined with Calcium Sulhate Based Bone Graft Material at Implant Recipient Side**

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**Objective:** Bondbone is a synthetic bone graft material composed of biphasic calcium sulfate. It is widely documented for its biocompatibility, bioresorbability and osteoconductivity. It has many advantages fast setting and its physical properties are not affected by blood and saliva. It can be mixed with other graft materials and in some cases bondbone can also be used as a resorbable barrier over the other grafting materials.

**Materials-Methods:** A 54 year old male patient referred to our department for implant rehabilitation. 25 years ago, the patient underwent an apical surgery treatment with the related superior left canine tooth. On the radiological examination, a buccopalatal defect was seen. There was not enough bone volume for implant placement. The tooth was extracted, the granulation tissue was curetted and the bondbone graft material combined with allograft (0.5 /1 cc) was placed into the defect.

**Results:** After 3 months adequate bone volume for implant placement was obtained and an endosseous implant to the grafted area was placed

**Conclusions:** In the case presented herein, bone defect at implant recipient site could be successfully rehabilitated with bond bone combined with allograft and facilitated the procedure with easy handling and reduction of procedure time.

**P-044****Intraosseous Granuloma Mimicking Residual Periapical Lesion with Suspected Traumatic Etiology**

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**Objective:** The purpose of this case was to describe the clinical and microscobic features of an intraosseous granuloma with a traumatic etiology.

**Materials-Methods:** 55 year old male patient referred to our department with the complaints of swelling, persistent pain on the right anterior side of the mandible after tooth extractions. Panoramic radiographs showed a radiolucent lesion along the mandible extending from the central incisor to the basis of the right side of mandible in an oblique line. Computed tomography revealed an osteolytic perforation of the lingual cortex of the mandible. His medical history included a fist blow in a fight 5 years ago. We planned the operation made an sulcular envelope incision at right first molar extending to the second left incisor, elevated the mucoperiosteal flap with preservation of the mental nerve then we eliminated the granulous tissue extending to the basis of the mandible.

**Results:** After operation, symptoms like swelling and persistent pain resolved. The healing period was uneventfull.

**Conclusions:** Intraosseous granulomas in the mandible are rare lesions. The final diagnosis was made after pathologic evaluation. The enucleation of the radiolucent lesion are the exact treatment option for these lesions.

**P-045****Severe Trismus Secondary to Inferior Alveolar Nerve Block**

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**Objective:** The management of a case with persistent trismus secondary to IAN block via multidisciplinary approach was described.

**Materials-Methods:** A male patient developed a medial pterygoid trismus the day after receiving two IAN block for a routine dental restoration. He had a significantly restricted mouth opening and masseter and medial pterygoid muscle pain. Muscle relaxants and analgesic tablets were prescribed and extraoral heat application for muscle stretching using with mouth opener appliance was performed. The interincisal width increased up to 28 mm. However, after several attempts, the patient couldn't preserve his mouth opening and therefore was referred to physiotherapy clinic. Local anesthetic injection was applied to the myofascial trigger zone of the medial pterygoid and masseter muscle and antidepressant therapy was administered.

**Results:** The mouth opening increased to 34 mm. The patient condition is more better now

**Conclusions:** Trismus is generally treated by the application of heat, muscle stretches, analgesic and muscle relaxants. In cases where the condition is severe and prolonged, multidisciplinary approach might be beneficial.

**P-046****Treatment of Pyogenic Granuloma with Excision and  
Cauterization of The Lesion: A Case Report**

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**Introduction:** Pyogenic granuloma is generally known as vascular lesion that occurs on both mucosa and skin. The related reasons about these lesions are irritation, stress, trauma and hormonal factors. The surfaces of these lesions can be smooth and lobulated. Some kinds of lesions have a highly vascular granulation tissue and recurrent bleedings can be seen. These spontaneous bleedings may necessitate excision and cauterization.

**Materials-Methods:** The female patient who was 68 years old referred to our clinic with the complaints of spontaneous bleeding and growth of the gingival area of the upper left canine tooth before prosthetic and restorative rehabilitation. The lesion was removed via surgical excision and electro-cauterization.

**Results:** After excision and cauterization, rapid improvement at the surgical field was observed.

**Conclusion:** The treatment of pyogenic granuloma is a simple surgical procedure which allows the best alternative for eliminating the complaints of the patient.

**P-047****Humon Papilloma Virus**

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Human papillomavirus (HPV) is a double-helix DNA virus in the papillomaviridae family. HPV has an affinity for epithelial tissue and causes benign and malignant changes to the stratified epithelium of the epidermis and mucous membranes. HPV is an etiological factor in many benign and malignant lesions of the head, neck, urogenital organs, skin, and mucous membranes. The role of HPV in the pathogenicity of squamous cell carcinoma in the head and neck area was first recognised in 1983 after findings showed histopathologic similarities between oral cancer and HPV infection. Because HPV has been implicated as the etiological factor for oral squamous cell carcinoma, HPV infection can be regarded as a subgroup of cancers affecting the oropharyngeal region. Due to these characteristics, HPV infection has been of particular interest in the field of maxillofacial surgery and dentistry. Screening, oral findings, early diagnosis, and proper treatment are of paramount importance in many HPV-related infections.



**P-048****Rehabilitation of Bilateral Canine Agenesis via Dental Implants**

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**Objective:** Immediate implants are positioned in the course of surgical extraction of the tooth and then replaced the implant in the extraction socket. Immediate implantation has many advantages reduced post extraction alveolar bone resorption, shortened of rehabilitation of treatment time, avoided the second surgical intervention.

**Materials-Methods:** 34 years old female patient referred to our department with cosmetic complaints secondary to bilateral canine agenesis. Persistent deciduous canines were extracted and two endosseous implants were inserted.

**Results:** Esthetic emergence in the anterior zone is achieved by 2-3 mm subcrestal implantation.

**Conclusions:** There are many important points in the procedure of immediate implantation. Primary stability is an essential requirement achieved with an implant exceeding the alveolar apex by 3-5 mm or by placing greater diameter of an implant than the remnant alveolus. In addition subcrestal implantation might be beneficial to obtain cosmetically satisfactory results in patients with high esthetic demands.

**P-049****Treatment of Oral Mucocele of The Lower Lip**

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**Introduction:** Oral mucocele is a clinical term that refers to two related phenomena mucus extravasation phenomenon and mucus retention cyst. Extravasation phenomenon usually occurs in case of a ruptured salivary gland duct caused by local trauma. The other form of mucocele is mucus retention cyst an obstructed or ruptured salivary duct causes this phenomena. These lesions are not really true cysts because there is no epithelial lining inner of the lesions. The characteristics of these lesions are bluish translucent color and usually seen in children and young teenagers.

**Materials-Methods:** 17 years old female patient referred to our clinic with pain and bumps inside the right side of her lower lip. It was decided to surgically remove the lesion. Firstly we made a ring block injection around the lesion, made an elliptical incision and ablated.

**Results:** Removed lesion sent for histopathological analysis and the diagnosis of oral mucocele was rendered. After one week from enucleation rapidly improvement of the corresponding area was observed. The patient was symptom free for 1 year follow up.

**Conclusion:** Several types of procedures are available for the treatment of mucocele. Surgical removal is a simple and less traumatic option among other techniques such as marsupialisation and laser ablation.

**P-050****Sedation During Implant Surgery**

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Medical dentistry treatments take the form of practical applications rather than the use of medical therapies. Performing procedures under local anaesthesia can inhibit pain in patients but does not prevent fear and the physiological reactions that occur in response to it. This may affect the success of treatment. The use of implant surgery, one of the practical applications of medical dentistry, has been increasing gradually over the last 20 years. In order to perform surgery comfortably and prevent fear in patients during the procedure, sedation is established. In this article, we present the sedative agents administered during implant surgery and their usage.

**P-051****Bilateral Lateral Periodontal Cysts: Report of an Unusual Case**Aydın Gülses<sup>1</sup>, Gamze Arıcı<sup>1</sup>, Metin Sengimen<sup>1</sup>, Hilal Peker Öztürk<sup>2</sup><sup>1</sup>Gülhane Military Medical Academy, Department of Oral and Maxillary Surgery, Ankara, Turkey<sup>2</sup>Gülhane Military Medical Academy, Department of Oral Radiology, Ankara, Turkey

**Introduction:** Lateral periodontal cyst (LPC) is an uncommon developmental odontogenic cyst representing approximately 1 % of all cysts of the jaws. The majority of the LPC s are in the mandibular canine-premolar region adjacent to a root or roots of vital teeth. They are typically identified incidentally by a routine dental radiography but sometimes can cause a tenderness on palpation. LPC is generally thought to be a slowly growing lesion. Treatment protocol consists of total enucleation or curettage of the lesion. Here we represent our surgical approach to a rather uncommon case having bilateral periodontal cysts.

**Method:** A 22-year-old male was referred to us with a complaint of a swelling located at the gingiva between the mandibular left first premolar and canine. The lesion was fluctuating and tender on palpation. Orthopantomography of the patient revealed one more round shaped radiolucency between the mandibular right lateral and canine. The teeth adjacent to the lesions were vital except the left lateral tooth ( It has undergone endodontic treatment because of caries). Our first diagnose was LPC. We totally enucleated the lesions and histopathological investigation confirmed that the lesion as LPC.

**Results:** LPC is an uncommon lesion but multifocal presentation of LPC is rather rare. But differential diagnosis isn't too difficult because of the histopathological features.

**Conclusion:** Long term follow up of patients with multifocal LPC would be necessary in case of recurrence.

**P-052****Primary Diffuse Large B-cell Lymphoma of the Mandible A  
Case Report**

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Lymphomas are a heterogeneous group of malignant neoplasms of lymphocytes and their precursor cells. Lymphoma is seen 3.5% of all intraoral malignancies and lymphoma is the second most common neoplasm after the squamous cell carcinoma in the head and neck region. Diffuse large B-cell lymphomas (DLBCL), which is a subtype of non-Hodgkin lymphoma, are seen mostly in the paraoral region and primarily oral lymphomas.

This poster presentation reports a case of a 72-year-old female diagnosed with diffuse large B-cell lymphoma in the mandible with a localised swelling of the mandibular buccal mucosa without ulceration.



**P-053****Delayed Replantation of An Avulsed Tooth with The Use of Platelet Rich Fibrin**Ahmet Kivrak<sup>1</sup>, Tuba Çongara Kivrak<sup>2</sup>, Hami Hakiki<sup>1</sup><sup>1</sup>*Department of Oral and Maxillofacial Surgery, Ankara University Faculty of Dentistry, Ankara/Turkey*<sup>2</sup>*Department of Restorative Dentistry, Ankara University Faculty of Dentistry, Ankara/Turkey*

**Introduction:** Dental avulsion is the complete displacement of a tooth from its socket in alveolar bone owing to the trauma. It is a common clinical condition in school-aged children. Studies have shown, teeth that are protected in a physiologically ideal media can be replanted within 1 hour after the accident with good prognosis. We are presenting a delayed replantation of an avulsed tooth with the use of platelet rich fibrin (PRF), which was stored in a dry place for 10 days.

**Case Presentation:** 20-year-old male patient was referred to our hospital, who was fallen 10 days previously, possibly due to a hypoglycemic episode. Clinical examination revealed that, the left upper central tooth had sustained avulsion with an uncomplicated crown fracture. Radiographic examination showed no fracture on the affected region. Patient stated that, the avulsed tooth was stored in a dry place during this period. The root canal treatment of avulsed tooth was performed outside the mouth and then, the tooth was put inside %2 sodium fluoride solution for 20 minutes. Around 40 ml of whole venous blood was collected from patient, inside four sterile vacutainer tubes without anticoagulants. The tubes are then placed in a centrifugal machine at 3000 rpm for 10 minutes in order to obtain PRF to support healing and regeneration process. The granulation tissues inside tooth socket, cleaned with curettes under local anesthesia and the PRF material was used as a membrane to cover the prepared socket walls. Then the avulsed tooth was placed inside the socket and stabilized with flexible splint for 1 month period. A combination of amoxicillin/clavulanic acid (1g-twice a day) and metronidazole (500mg- three times a day) prescribed for patient. During the stabilization period, we did not observe any signs of infection, pain and mobility. The radiographic follow up in 3rd and 5th months showed no signs of resorption and pathologic process around the affected region. The esthetic restoration of the uncomplicated fracture was done in the third month with composite material and the patient is very satisfied with the results for now.

**Discussion:** Recently, the use of PRF has proven to promote the healing process in various applications of dentistry. In our case, we observed encouraging results in delayed replantation with the contribution of PRF. Its ease of preparation and application makes it a valuable and cost effective option which can provide important benefits for the patients, without any risk of infection or transmission of diseases.

**P-054****Intra-Articular Autologous Blood Injection for The Treatment of Recurrent Temporomandibular Joint Dislocation**

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**Objective:** Temporomandibular joint (TMJ) dislocation is an excessive forward movement of the condyle beyond the articular eminence with complete separation of the articular surfaces and fixation in that position. The aim of this report is to describe to assess the results of autologous blood injection to the TMJ for the treatment of chronic recurrent TMJ dislocation.

**Material-Methods:** A 22 years old male patient presented with bilateral chronic recurrent condylar dislocation. Bilateral injection of 2 ml of autologous blood into the superior joint compartment and 1 ml onto the outer surface of the joint capsule was performed.

**Results:** The patient had a successful outcome with no further episodes of dislocation and required no further treatment at their 1-year follow-up,

**Conclusion:** Autologous blood injection is a safe, simple, and cost-effective treatment for chronic recurrent TMJ dislocation.



## P-055

**Management of a Disarticulation Hemimandibulectomy Defect with Laser Sintering Custom-Made Prosthesis: a Case Report**

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Reconstruction of defects resulting from resection of mandibular tumors, particularly those affecting the condyle, remains a challenge for surgeons and patients. As use of CAD/CAM technology in medical sciences became quite popular recently, preoperative virtual surgery planning with these technologies provides increased surgical precision, improved rehabilitation and decreased post-operative morbidity and operation time. This report describes a patient who treated with custom-made reconstruction prosthesis after ameloblastoma resection. A 30-year-old woman was referred to our department with a swelling and pain on the left posterior mandible that persisted for one year. Radiologic examination revealed impacted left mandibular third molar and a multilocular radiolucent lesion that extended from left lateral incisor to subcondylar region involving coronoid process and ramus. Incisional biopsy revealed ameloblastoma. A reconstruction prosthesis including condyle was designed by using CT image processing software and 3D CAD modelling software. The prosthesis was manufactured in direct laser metal sintering machine from chrome-cobalt alloy powder. Under general anesthesia, disarticulation mandibulectomy of the left mandible was performed via combination of submandibular and preauricular approaches and the prosthesis was placed. The native articular disc was left intact as interpositional material. The patient had adequate functional and esthetic results after the operation. The virtual surgical planning, design and manufacturing of a customized prosthesis including condylar process using reverse engineering, computer-aided design, and direct laser metal sintering is a useful technique to simplify the surgical procedure, shorten the operation time and obtain the native morphology of the mandible for the reconstruction of mandibular defects. It also provides more esthetic results comparing fabricated reconstruction plates. In our case, a young woman patient was successfully treated with adequate functional and esthetic results by the aid of these innovative techniques.

**P-056****Treatment of Mandibular Condyle Fracture via Submandibular Approach**

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**Introduction:** Mandible, because of its position and prominence, is the second most commonly fractured part of the maxillofacial skeleton after nasal bones. The proportion of condylar fractures among all mandibular fractures is between 17.5% and 52%. Most are not caused by direct trauma, but follow indirect forces transmitted to the condyle from a blow elsewhere. However, there are different opinions among surgeons regarding the optimal treatment and management of these fractures. The pre-auricular, submandibular, intraoral, retromandibular and more recently endoscopic approaches are used in the open reduction internal fixation (ORIF) of condylar fractures.

**Case Report:** A 26-year-old male patient was referred with a complaint of persistent swelling and pain on the left side of the face. In history, the patient had a trauma on the right side of the mandible. Clinical examination revealed trismus and swelling on the left side. Panoramic and CBCT evaluation showed unilateral fracture of the left subcondylar region. The fracture was reached via submandibular approach under general anesthesia. Internal fixation was performed with two miniplates. To avoid hematoma formation, minivac was placed into the surgical field. Postoperative period was uneventful and facial paralysis, malocclusion and TMJ dysfunction were not observed. Postoperative panoramic radiograph showed successful reduction of the fractured segments.

**Conclusions:** Submandibular approach is a safe and successful surgical method in ORIF of subcondylar fractures.

**P-057****Diffused Swelling in the Facial Region Due to Misdiagnosed of Odontogenic Infection**

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*Gülhane Military Medical Academy*

**Objective:** Odontogenic infection is an infection that originates within a tooth or in the closely surrounding tissues. These infections may remain localized to the region where they started or spread into adjacent tissues. In our case we discuss the wrong and wrong therapy applications whose situation is getting worse due to misdiagnosed of the situation.

**Materials-Methods:** 28 years old female patient referred to hospital emergency service with a diffused and extensive swelling in the facial region. The doctor examined the patient and thought this table as allergic reaction prescribed corticosteroid and antihistamin tablets. After these procedure there was no positive result. Then patient admitted to the hospital with complaints of stomach comfort. For these reasons antiemetic and intestinal antiseptic prescribed nausea,dizziness and diarrhea. After using this medications 1 day the entire face showed diffuse swelling. Then antihistamin injection was performed. After injection swelling decreased a little.

**Results:** Finally when we examined the patient after evaluation of orthopantomograph and vitality of the left upper santral, lateral and canine tooth we saw these tooth are devital. We prescribed Clindamisin 300 mg, Ornidazol 500 mg with injection 5 days twice a day. After 1 day lateral tooth treated by root therapy. After these treatments the patient's condition is immediately getting better

**Conclusions:** For odontogenic infections diagnose is very important. Drugs should be chosen considering patient's complain and examination findings..

**P-058****Management of Perimplantitis with PRF and Allograft  
Combination: A Case Report**

Gürkan Raşit Bayar, Tamer Zerener, Serkan Kiran  
*Gülhane Military Medical Academy*

**Introduction:** Perimplantitis is a infectious disease which causes an inflamantory process and charecteristics with bone loss around an osseintegrated implants in the function. The ethiology of the periimplantitis is usually associated with implant design, external morfology of the implant and excessive mechanical overload around the implant. Diagnosis is based on changes of color in the gingival tissue, supuration, probing depth of periimplant pockets and in the radiographic diagnosis loss of bone height around the tooth.

**Materials-Methods:** A 48 years old female patient refered to our department with the complaints of supuration, bleeding from posterior buccal gingiva and halitosis. When we examined the posterior region of the right mandibula signs and symptoms are typical for periimplantitis lesions. We planned to treat the periimplantitis by periodontal surgical technique combined with implant surface decontamination and regenerative procedures using with PRF and allograft combination covered by a membrane.

**Results:** The treatment protocol for perimplantitis is depending on whether it is periimplant mucositis or periimplantitis. In our case we aimed at recovering the lost bone applying with PRF and material combination for speeding up the healing period.

**Conclusion:** Prognosis of the affected implant is depending on whether it is periimplant mucositis or periimplantitis. There are many treatment alternatives related with the stage of the disease. These are respectively decontamination of prosthetic abutments, if bone loss is advanced surgically debride soft and periimplant tissues, decontaminated the implant surfacace with laser devices, antiseptic and antibiotics agents or either alone and finally applying bone regeneration tecniques aimed at recovering the lost bone.





## P-059

**An Unusual Ill-Fitting Denture-Induced Fibrous Hyperplasia: A Case Report**

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**Objective:** Denture-related oral mucosal lesions such as denture-induced fibrous hyperplasia and inflammatory papillary hyperplasia are more prevalent in older subjects than in younger individuals because the oral mucosa becomes more defenseless to local irritants as individuals age. Denture-induced fibrous hyperplasia is a fibrous connective tissue lesion that commonly occurs in oral mucosa in patients having alveolar ridge atrophy. Fibrous hyperplasia is treated by surgical incision using a scalpel, together with removal of the source of chronic trauma. However, scalpel techniques do not provide the haemostasis that is necessary when dealing with highly vascular tissues. Diode laser surgery can be used in the management of oral tissues due to its high absorption by water and haemoglobin, and has provided good results in both periodontal surgery and oral lesions. The aim of this case report is to present a case of surgical treatment of a patient with denture-induced fibrous hyperplasia and her evaluation during a three month period.

**Methods:** A 76-year-old male patient referred to our clinic with the complaint of the presence of mobile tissue under the maxillary complete denture. The intraoral clinical examination revealed a flaccid, erythematous limited-sized hyperplasia that had a pedicle associated with denture on the left side of the palate with slight pain.

**Results:** The wound was re-epithelialized after 4 weeks, and no negative events in healing occurred. According to the histopathologic examination the diagnosis of fibrous hyperplasia was rendered. Dentures can cause a wide range of lesions of the oral mucosa, that could be prevented with follow-up to evaluate dentures and provide instructions on how to maintain oral tissues healthy.

**Conclusions:** All hyperplastic gingival lesions should be treated by eliminating the underlying etiology and removing the lesion. If this protocol is followed, the risk of relapse should be negligible. Diode laser surgery proved to be more effective and less invasive when compared to scalpel surgery in the management of fibrous hyperplasia. However, wound healing proved to be faster when using scalpel surgery.

**P-060****Hemisection As A Time & Money Saving Treatment Option**

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**Introduction:** The term hemi-section refers to the sectioning of a tooth with the removal of an unrestorable root which maybe affected by periodontal, endodontic, structural (cracked roots), or caries. Careful case selection determines the long term success of the procedure. This case study presents one treatment option available in cases of upper left second premolar affected by extensive periapical lesion that threaten the loss of the tooth.

**Method:** A 42-year-old male has admitted with the complaints of mild pain and light swelling on his left upper molar region. During the clinic and radiographic examination by CT, a large periapical lesion was discovered adjacent to the buccal root tip of upper left second premolar. The palatal root was in very good condition with excellent periodontal support. Endodontic treatment of palatal root was completed and the patient was scheduled for removal of the buccal root. The root morphology allowed for surgical access and proper periodontal maintenance of the final restoration. After that, the buccal root with associated lesion was removed. The defect was covered with PRF.

**Result:** Endodontic treatment and hemisection yielded a satisfactory result. At follow-up, occlusion was stable, there was no inflammation, and the patient was satisfied with the outcome. No complications were noted when the patient was seen 1 year later.

**Conclusion:** Hemi-section of the effected tooth allows the preservation of tooth structure, alveolar bone and cost savings (time and money) over other treatment options. It may be a suitable alternative to extraction and implant therapy and should be discussed with patients during consideration of treatment options. This case demonstrates an alternative treatment to extraction of a whole tooth and recovery of healthy tooth structure. The success of the treatment depends on perfect clinic examination and careful case selection based on a firm set of guidelines.



## P-061

**Marsupialisation of A Residual Radicular Cyst in A Totally Edentulous Elderly Patient**Hasan Ayberk Altuğ<sup>1</sup>, Dilber Çelik<sup>1</sup>, Arzu Atay<sup>2</sup>, Aydın Gülses<sup>1</sup>, Hilal Peker Öztürk<sup>3</sup><sup>1</sup>Gülhane Military Medical Academy, Department of Oral and Maxillary Surgery, Ankara, Turkey<sup>2</sup>Gülhane Military Medical Academy, Department of Prosthodontics, Ankara, Turkey<sup>3</sup>Gülhane Military Medical Academy, Department of Radiology, Ankara, Turkey

**Objective:** Cysts of the jaws compose an important pathology in the oral and maxillofacial region. Marsupialisation is a treatment modality especially in patients with large cysts, cysts adjacent to the teeth which are thought to be preserved and cyst neighbouring anatomical vital structures.

**Case:** A 80-year-old male was referred to our clinic with a complaint of pain and swelling around the right anterior maxillary region since the past 1year. Because of the swelling,he found it difficult to use prosthesis. Intraoral examination revealed a firm, non-fluctuant 3 cm mass at the corresponding area. A well-circumscribed, round, ovoid unilocular radiolucency is seen on computed tomography. The buccal cortical wall was perforated and the nasal cavity was entrapped.

**Results:** Under local anesthesia, A full-thickness flap was reflected and the cyst was reached. Marsupialization was preferred and performed uneventfully. In these technique, a window is produced in the wall of the cyst to relieve the intracystic pressure to allow the cavity to diminish slowly in size..Postoperative rehabilitation was supplied with a surgical obturator which was fabricated by modifying the patients old prosthesis. Clinical and radiographic showed progressively satisfactory healing of both the soft tissue and bone. After 3 months after surgical treatment, the size of the cyst decreased significantly.

**Conclusions:** Management of large cystic lesion might necessitate a multidisciplinary approach. The surgeon must decide whether to enucleate the lesion or to endeavour decompression. Small cysts are generally enucleated, but large cysts are marsupialized initially and then enucleated at a second operation. Marsupialization should be considered when planning cysts treatment, primarily in old patients with large lesions, to avoid spoiling and large resection.

**P-062****Alveolar Zygomatic Buttress As A Donor Site for Localised Ridge Augmentation - A Case Report**

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**Objective:** The therapeutic planning for treating patients with missing teeth has been significantly expanded by modern implant methods. Placement of an endosseous implant requires sufficient bone volume for implant stability and survival rate. Bone grafts can be taken intraorally (symphysis, ramus, tuber, torus, zygomatic buttress) or extraorally (iliac, tibia, calvarium, costa) for resorption area. The aim of this case report is to present advantages of alveolar zygomatic buttress block graft for ridge augmentation to place implants.

**Methods:** In this case presentation; a 55 year-old male patient who came to Istanbul University, Faculty of Dentistry, Department of Oral Surgery, with maxillary bone resorption, applied fixed prosthetic rehabilitation after grafted zygomatic bone and implants was shown. The surgery was applied under local anesthesia. After midcrestal and vertical incisions the bone block graft harvesting from the right alveolar zygomatic buttress was carried out. Using with the help of piezosurgery the graft sized 11x6 mm was obtained. Then a 1 cm<sup>2</sup> bone transplant was fixed in the right anterior region with two bone screws, each 1.5 mm in diameter and 9 mm long. Over the bone block graft xenogenic bone substitute and collagen membrane were placed.

**Results:** The gain of 3.5 mm was measured using cone beam CT image. In spite of not being so thick, a favourable convex graft shape provided secluded space for clot stabilization and satisfying regenerated ridge width.

**Conclusion:** The zygomatic buttress block bone graft is a safe intraoral donor site for the reconstruction of small- to medium-sized alveolar defects, providing the greatest surgical access with minimal postoperative complications.



## P-063

**Peripheral Giant Cell Granuloma in A Patient With Wegener's Granulomatosis**

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**Objective:** Peripheral giant cell granuloma (PGCG) is a rare lesion of oral cavity which originating from periosteum and periodontal membrane. PGCG is a reactive exophytic lesion occurring on the gingival and alveolar ridge in consequence of local irritation factors such as tooth extraction, poor dental restorations, food impactions, plaque, calculus and trauma. Pgcg shows a wide dispersion that from slow growing asemptomatic lesions by ever expending in through bony tissue to devastative lesion.

**Case:** 34 year old female who undergoing treatment renal deficiency and Wegener's granulomatosis referred to our department the chief complaint of edema on alveolar ridge on vestibular site of maxilla right second molar region. Patient has complaints regarding the lesion caused food impaction, bleeding during eating and malodour for 6 months. After clinical examination a well-circumscribed broad-based and redish blue lesion was diagnosed. The lesion was approximately 1,5 cm x 2cm. Secondary ulceration thought to be caused by trauma and a focal yellow-grey zone was detected on the surface of the lesion. Pain and bleeding on palpation was present. Radiographic examination didn't show any pathology in the bone and adjacent teeth.

**Results:** Under local anesthesia, the lesion was removed by surgical treatment with curettage. Diod laser was used to control bleeding. It was diagnosed histopathologically as PGCG. There was not any pathology in the postoperative period. There was no recurrence at 3 months after surgery. In this case, the lesion is thought to be related with Wegener's granulomatosis.

**Conclusions:** PGCG is usually localized on the anterior mandibular region and often seen in 4-6 decades of life. Treatment is surgical excision and the reported recurrence is rare. The diagnosis of PGCG must be made distinctive from pyogenic granuloma, fibroepithelial polyp, peripheral ossifying fibroma, fibroma and traumatic neuroma. In the case presented herein, long-term follow-up is planned due to the high recurrence secondary to renal deficiency and existing Wegener's granulomatosis. The risk of associated systemic diseases should be kept in mind and the patients should be scheduled for further visits and recalls.



**P-064****Focal Fibrous Hyperplastic Lesions Of The Oral Cavity:  
A Retrospective Study Of 14 Cases**

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**Objective:** Focal fibrous hyperplastic lesions which irritation fibroma with an alias are non-neoplastic proliferations in the oral cavity. Trauma, prosthetic problems and periodontal illness are the etiologic factors of these lesions. The aim of this retrospective study was to determine the frequency and location of lesions in addition to evaluate the treatment.

**Materials-Methods:** The study was retrospective archive review which was obtained from the department of oral and maxillofacial surgery, Gulhane Military Medical Academy, Ankara. Data including the type of the lesion, gender age, location and treatment of the lesions were evaluated.

**Results:** A total of 14 cases were reviewed. The data consist of 9 females and 5 males. The age range from 18 to 73 years. The most common etiological factor was trauma (n=7). The other etiological factors were prosthetic problems (n=5) and periodontal illness (n=2). The involved sites of the lesions in oral cavity were tongue (n=3), lip (n=2), hard palate (n=2), alveolar ridge (n=2) and buccal mucosa (n=5). All lesions were treated by two different methods which include traditional surgery (n=9) and laser excision (n=5).

**Conclusion:** Focal fibrous hyperplastic lesions in oral cavity were evaluated with this study. Accordingly, the most common etiological factor was trauma. Buccal mucosa was the most common involved site. Traditional surgical methods such as the use of scarpel and curette are still popular in our clinic.



**P-065****Management of an Intraosseous Presentation of an Epidermal Cyst at The Posterior Maxillary Region with a Five Years Follow-Up**

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**Introduction:** Epidermal cysts are benign soft tissue neoplasms surrounded by keratinized squamous layer and filled with keratin debris. Intraosseous inclusion of this entity is a rare presentation resulting from implantation of surface epidermal layer into dermis or subcutaneous tissue secondary to trauma or surgical procedures. The aim of the current report is to present an epidermal cyst of intraosseous location at the posterior maxilla.

**Method:** A 33-year old female patient has admitted with the complaints of blunt pain and mild swelling on her left posterior upper jaw. A panoramic radiograph revealed the presence of a radiolucency at the corresponding area with well defined borders, next to the root tips of the second molar. Aspiration biopsy was performed and the diagnosis of "epidermal cyst" was rendered. Under general anesthesia, the cyst was enucleated and the first and second molars at the affected area were extracted.

**Result:** The patient has tolerated the procedure well. The postoperative course was uneventful. The patient was symptom free during the 5 years postoperative course.

**Conclusion:** Intraosseous presentation of the epidermal cysts is an extremely rare entity. It is difficult to differentiate this lesion from other inflammatory and cystic neoplasms. Every additional report of the condition could be beneficial in understanding the pathogenesis and determine the management strategies.

**P-066****Ameloblastic Fibro-odontoma: Case Report**

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**Introduction:** Ameloblastic fibro-odontoma (AFO) is a quite rare, mixed odontogenic tumour generally seen in the early stages of life. Frequent signs of this tumour are asymptomatic swelling, delayed tooth eruption and mixed radiological appearance within well-defined borders. Management of the lesion includes enucleation of the tumour and long-term follow-up.

**Presentation of Case:** A 12-year-old was brought by his parents for evaluation of an extra-oral swelling present for two-three months. Examination showed a firm, painless swelling in the posterior region of the left mandible. She was referred to our oral and maxillofacial surgery clinic with a radiological finding of huge radiolucent mass in the posterior region of mandible and mixed appearance centre of the neoplasm. Under general anaesthesia, the lesion was enucleated, the permanent left upper third molar tooth bud and second molar ectopic positions removed. Histological assessment revealed a final diagnosis of ameloblastic fibro-odontoma.

**Discussion:** Mixed odontogenic tumours are a group of rare and interesting lesions which can mislead the clinician to a variety of differential diagnosis. Adequate clinical and radiological investigations, proper surgical excision, accurate histopathological diagnosis and long term follow up will ensure the right treatment plan for the patient.

**Conclusion:** The possibility of a mixed rare tumour should be kept in mind by the clinician where they deal with the swellings of posterior mandible in children.

**P-067****Dentigerous Cyst of the Mandible: A Case Report**

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**Objective:** Dentigerous cysts are the second most common odontogenic cysts affecting the jaw bone that are associated with the crowns of permanent unerupted teeth; usually single in occurrence and located in the mandible. Dentigerous cysts remain asymptomatic and are usually diagnosed incidentally during the routine radiological examination. In this report, large dentigerous cyst associated with the mandibular canal and surgical treatment are presented.

**Methods:** A 21-year-old male patient suffering from swelling of the left mandibular posterior region with dull pain was referred to our department. The diagnosis of dentigerous cyst was confirmed with clinic, radiographic and histopathologic findings. Dentigerous cyst was enucleated and the associated impacted teeth extracted under general anesthesia.

**Results:** The patient tolerated the procedure well. Sutures were removed on the seventh day after operation and the postoperative course was uneventful. After the operation paraesthesia was present till four weeks.

**Conclusions:** Dentigerous cysts may cause symptom free large bone defects. It is therefore important to perform radiographic examination of all unerupted teeth.

**P-068****Closure of Oroantral Fistula Using Platelet-Rich Fibrin:  
A Case Report**

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**Objective:** Oroantral fistula (OAF) is a pathological communication between the oral cavity and the maxillary sinus. Many techniques and treatment modalities have been described for the management of OAF. We report a 21-year-old male patient who was admitted to our department for the presence of an OAF and was treated using platelet rich fibrin membrane.

**Methods:** The bony defect of the OAF was covered PRF membranes and then buccal advancement flap was sutured over the membranes.

**Results:** The result was good, as the defect was successfully closed. One month post-operative review showed that the wound in the defect area healed without dehiscence, and the donor site was covered with normal fibrin.

**Conclusions:** This technique may be useful to treat OAF and to provide a solid alveolar bone site for subsequent pre-implant surgery.

**P-069****Bilateral Maxillary Paramolar: Report of a Case and Literature Review**

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**Objective:** Reports of bilateral entity are rarely found in the dental literature. The present article reports a case of bilateral paramolar in the maxillary molar region in 21-year-old male patient and also reviews the literature about bilateral paramolar.

**Methods:** Patient's medical and family history was not relevant and there were no signs of any systemic disease or syndromic features. In this case both of paramolars were extracted because of gingival inflammation in the surrounding areas. Also it could cause caries in the adjacent teeth.

**Results:** Extraction of the supernumerary teeth are recommended such as preventing permanent tooth eruption, increase risk of caries due to plaque retention, causing pathological problems, esthetic and functional reasons, for orthodontic treatment.

**Conclusions:** Supernumerary teeth can cause some problems in the oral cavity. The clinician should be applying the right treatment option to minimize these problems.



**P-070****Intraosseous Schwannoma of Mandibular Symphysis:  
Case Report**

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**OBJECTIVE:** Schwannoma (neurilemmoma) is a benign neoplasm originates from the neural sheath that occurs most frequently in the head and neck region. Intraosseous schwannomas are rare. The mandible is the most common site of occurrence for these lesions. The diagnosis and treatment of an intraosseous schwannoma located at the mandibular symphysis was presented in this report.

**Methods:** A 30year-old-female patient was referred to our clinic for a large-cystic lesion in the mandibular symphysis region detected by a dental practitioner in her routine dental treatment. There was no associated pain, numbness or discomfort found in clinical examination. It has been learned that she had an injury from that region at childhood. Incisional biopsy of the lesion was done under local anesthesia and the diagnosis of benign schwannoma was reported. The patient was then operated under general anesthesia and the tumour was totally resected. A reconstruction plate was used for fixation of the mandible.

**Results:** The postoperative course was uneventful and the patient was asymptomatic at the follow up visits. Radiographic evaluation done 6 months postoperatively revealed new bone regeneration and the reconstruction plate was removed under general anesthesia. There were no signs of recurrence.

**Conclusions:** The recommended treatment option for mandibular schwannoma is surgical removal. Malignant transformation of schwannoma is exceedingly rare. However, in the case reported a follow-up time of 1 year is insufficient to eliminate the possibility of recurrence, so further follow up is mandatory.

**P-071****A Rare Vascular Tumor: Epithelioid Hemangioma  
Case Report**

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Epithelioid hemangioma (EH) is a very rare vascular tumor that usually arises from the skin surface and subcutaneous tissues of the head and neck area. EH is histologically composed of immature vessels lined by epithelioid or histiocytoid endothelial cells with prominent chronic inflammatory component. The tumor commonly appears on the skin and surrounding tissues of the head and neck, particularly in the preauricular area. Oral mucosal involvement of EH has been reported very rarely. We report a case of an 41 year old man with a mass that was located in right cheek for 2 months. About 2 centimeters rubbery mass was palpated in the masseteric muscle. MRI reveals the solid lesion was hypointense in T1-weighted view and mixed hyperintense-hypointense at the central region in T2-weighted view. The tumor also showed diffuse positive with contrast agent (Meglumin gadoterat) in the anterior region of masseteric muscle and there were multiple submandibular lymphadenopathies. An excisional biopsy was performed under local anesthesia. The lesion was consisted of vascular tissue that induced to abnormal hemorrhage. Histopathological diagnosis was made as epithelioid hemangioma. It is critical to make histopathological distinction of EH from epithelioid hemangioendothelioma which has similar microscopic features with EH but more aggressive and prone to malignant transformation. Once the diagnosis has been made as EH surgical resection with conservative margin is the treatment of choice.



## P-072

**Socket Preservation Procedure in Aesthetic Area:  
Case Report**Özkan Karataş<sup>1</sup>, Hatice Balcı Yüce<sup>1</sup>, Emrah Soylu<sup>2</sup><sup>1</sup>Gaziosmanpasa University, Faculty of Dentistry, Department of Periodontology, Tokat, Turkey<sup>2</sup>Gaziosmanpasa University, Faculty of Dentistry, Department of Oral and Maxillofacial Surgery, Tokat, Turkey

27 year-old male patient referred to our clinic with a trauma history from 2 years ago. Maxillary right and left central incisors were affected from trauma and horizontal fractures were observed in both teeth. The left incisor had no symptoms, prognosis was good and stayed untreated. Right incisor had class 2 mobility and 10 mm periodontal pocket was observed. After root canal treatment, initial periodontal treatment was performed but the prognosis of the tooth was still not good. Fractured tooth fragments were found to be separated in radiographs and because of this periodontal treatment failed. Tooth extraction was planned and in order to prevent further bone loss and preserve bone, socket preservation was recommended to patient. Atraumatic tooth extraction was performed with periostom without flap elevation. Granulation tissues within the socket were removed. Socket was filled with demineralized freeze-dried bone allograft (DFDBA) and platelet-rich fibrin (PRF) membrane was used to cover the graft. Free gingival autograft (FGG) harvested from hard palate was adapted above the PRF membrane. In order to increase vascular supply of the graft, tissues neighboring FGG margin was de-epithelialized. Then FGG was sutured with 6-0 polypropylene suture. Finally, extracted incisor was modified, placed above the FGG and splinted to the neighboring teeth to form papilla and restore aesthetic appearance until final restoration. Patient was recalled monthly for 3 months. After healing of the FGG and socket, there was no further bone loss or any bone defects in the extraction area. Bone and soft tissues were suitable for implant placement but patient decided to use fixed bridge prosthesis for economical reasons.



## P-073

### **Autotransplantation of Immature Mandibular Third Molar: Two-Years Follow-Up**

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**Introduction:** Autotransplantation is an alternative treatment for replacing a lost teeth when suitable donor teeth are available. Transplantation of immature third molars has become reliable treatment method in young cases of early loss of first or second molar. This case report was intended to present clinical and radiographic two years follow-up, surgery procedure of the successfully immature third molar transplantation.

**Case:** A seventeen years old female was referred for dental treatment her left mandibular second molar tooth. Panoramic and periapical radiographs revealed the existence of a periapical lesion in the periradicular area of grossly carious tooth. Therefore, the tooth extraction was indicated. The same clinical and radiographic examinations showed that unerupted left mandibular third molar was healthy, with partly developed roots making it suitable for tooth autotransplantation. The patient was recalled at 1., 3., 6., 9., 12. and 24. months. In the two years follow-up, no pathological signs were detected clinically or radiographically, and electric pulp testing was responded positively.

**Conclusion:** Autogenous transplantation of immature third molars may be considered as an alternative treatment against prosthetic and implant rehabilitation in cases of early loss of first or second molar.

**P-074****Lymphoma, A Case Report**

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**Introduction:** In this presentation we report a rare case of sporadic form of BL clinically manifesting as a generalized gingival enlargement in an immunocompetent adult male which demonstrated an aggressive behavior.

**Case:** The patient reported with a prominent posterior gingival swelling of 3 month duration which slowly enlarged in size and associated with multiple lymph node involvement. Microscopic examination of the lesion using H, E and immunohistochemical diagnosis confirmed the diagnosis as BL.

**Discussion:** In the oral cavity, extranodal non-Hodgkin's lymphoma can occur in the periapical region of the tooth either in the maxilla or mandible. Burkitt's lymphoma (BL) is an aggressive form of non-Hodgkin's B-cell lymphoma with three variants namely endemic, sporadic, and immunodeficiency associated types. It is endemic in Africa and sporadic in other parts of the world.

**Conclusion:** The patient succumbed to the disease before any therapy could be instituted. Since a wide array of causes can be attributed to gingival enlargements, it is necessary to consider malignancies as one of the important differential diagnosis so as to facilitate the need for appropriate diagnosis and prompt treatment.

**P-075****Adenoid Cystic Carcinoma of Hard Palate: A Case Report**

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Background: Adenoid cystic carcinoma (ACC) is a rare epithelial tumor entity and comprises about 1% of all malignancies of the oral and maxillofacial region. Half of these tumors occur in glandular areas other than the major salivary glands, principally in the hard palate. Although it presents a widespread age distribution, peak incidence occurs predominantly among women, between the 5th and 6th decades of life. It is a slowly growing but highly invasive cancer with high recurrence rate and perineural spread.

Case Presentation: 32- year-old man patient was referred to our surgery clinic. He complained a swelling on his palate-a dental abscess -not healing with antibiotics for two years. A panoramic radiograph, a CT and a MRI with contrast were obtained. Palatinal bone resorption was observed in CT scan and MRI scanning revealed a soft tissue mass in the right side of the hard palate extending to the maxillary sinus. A cribriform type adenoid cystic carcinoma with neural invasion is detected on histopathologic examination. Hemimaxillectomy was performed in an another center and patient also received chemotherapy and adjuvant radiotherapy.

Conclusion: On clinical examination of hard palate, clinicians must consider salivary gland tumors and other pathologies beside dental abscess.



**P-076****Immediate Restoration of Single Implant That Placed Immediately After Tooth Extraction: A Case Report**Burcu Firat<sup>1</sup>, Nurettin Diker<sup>2</sup><sup>1</sup>Department of Prosthodontics, Başkent University, Ankara, Turkey<sup>2</sup>Department of Oral and Maxillofacial Surgery, Başkent University, Ankara, Turkey

**Introduction:** The immediate placement of dental implants in the anterior maxilla has become an increasingly common practice. Immediate implant placement has several advantages, such as reduced number of surgeries and treatment time, better patient acceptance and shorter total treatment time. The use of an immediately placed provisional restoration at the time of implant placement immediately after tooth extraction may provide a platform to promote better peri-implant soft tissue healing and acceptable aesthetic outcomes.

**Case:** The aim of this report is to present immediate restoration procedure on immediately placed implant. A 45-years old male patient was referred to Baskent University, Faculty of Dentistry with functional and aesthetic problems. Following clinical and radiographic examination severe hard tissue loss of upper left canine tooth was noticed and extraction of the tooth was decided. Immediate implant placement after tooth extraction was settled on and during conversation patient expressed concerns about aesthetic results of missing tooth. Due to concerns of patient, immediate restoration of implant was concluded. After atraumatic tooth extraction, Nobel Active implant was placed into the root socket. Torque at the implant placement was about 40N/m. Gap between implant and root socket was filled with Platelet Rich Fibrin (PRF) and socket was covered with PRF membrane. Provisional restoration was fabricated using composite resin material and cemented with temporary cement in the same day of the surgery. After 4 months of osseointegration and healing period ICQ values of implant were 75 on both buccal and palatinal sides. Healthy peri-implant mucosa was observed and no abnormality detected on the periapical radiograph. Papillary levels were maintained by adjacent teeth and supported by the temporary restoration. Prosthetic rehabilitation was completed with porcelain fused to metal single unit crown on titanium abutment.

**Conclusion:** Patient satisfaction was attained with shortened treatment duration and restoration yielded a satisfactory result. This one-stage surgical and restorative procedure provides immediate aesthetic outcome, it also eliminates the need for temporary partial denture and potential second-stage surgical intervention.



## P-077

**Histological Variation of Calcifying Epithelial Odontogenic Tumor: a Case Report**

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The calcifying epithelial odontogenic tumor (CEOT) or Pindborg tumor is a rare benign locally invasive epithelial odontogenic neoplasm occurring as intraosseous (94%) and extraosseous (6%) variants. Clinically, these tumor symptoms are slow growing, painless, expansive and bony swelling with cortical bone resorption. Radiologically, CEOT is characterized by a uni or multilocular lesion that often shows a mixed radiolucent-radiopaque pattern. Fifty-two percent of CEOT are associated with a impacted tooth. CEOT may lead to tooth tipping, rotation, migration, and/or mobility and secondary to root resorption. Treatment consists in the surgical removal of the tumor, with recurrence in 14% Pindborg tumor. The prognosis is considered good. The histological criteria for the diagnosis of CEOT are sheets of polyhedral epithelial cells that have well defined border and often show prominent intercellular bridges. A characteristic feature seen within the sheets of epithelial cells are circular areas filled with a homogenous substance resembling amyloid-like material, which stains positively with Congo red. Some of these cells are also filled by calcified material in the form of concentric Leisgang's rings, which are pathognomic of this tumor. Twenty-Seven year old male patient referred to our department for treatment of the expansive tumor, which is located in the right posterior mandible. Tumor and the related teeth were resected with a safety margin. Histopathological analysis revealed the presence of discrete islands, strands and sheets of polyhedral epithelial cells in a cellular fibrous stroma. Some intercellular bridges were noted. Small areas of amorphous, eosinophilic, hyalinized extracellular material (amyloid) was also observed. Some stromal cells were bizarre and hyperchromatic. Ki-67 proliferation index was about 4%. However CEOT is local aggressive tumor, Ki-67 proliferation index is usually about 1%. In this case, suspicious stromal cells appearance and relatively high proliferation index require close, long follow-up for recurrence risk that may increase considering conventional CEOT. In this presentation in addition to this case report the surgical treatment, histological evaluations and variations of CEOT are going to be discussed.

**P-078****Communitied Alveolar Fracture Of The Maxilla:  
A Case Report**

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Maxilafacial trauma and traumatic dental injuries are important health problems and negatively impacts on the person's quality of life. Talking, eating and drinking difficulties and revealed symptoms such as malocclusion are the most common problems in posttraumatic period. Traumas often occur because of falls, sports activities, traffic accidents, etc. The types of injuries vary greatly and depend on the type and location of the force exerted during the injury.

The ability to keep the fractured bony segments in a correct and stable position is an essential step for successful management of posttraumatized patients and the ideal method for treating maxillofacial fractures is a rigid and stable internal fixation technique using plates or miniplates.

In this poster presentation, a ...-year-old, female patient who has left posterior maxilla communitied fracture was reduced with miniplate and screw fixation will be presented.



## P-079

**Aesthetic Restorations in Anterior Region and Gingival Harmony: Case Report**Yadel Tekin<sup>1</sup>, Özkan Karataş<sup>2</sup>, Yeliz Hayran<sup>1</sup>, Hatice Balcı Yüce<sup>2</sup>, Emrah Soylu<sup>3</sup><sup>1</sup>Gaziosmanpasa University Faculty of Dentistry Department of Prosthodontics, Tokat, Turkey<sup>2</sup>Gaziosmanpasa University Faculty of Dentistry Department of Periodontology, Tokat, Turkey<sup>3</sup>Gaziosmanpasa University Faculty of Dentistry Department of Oral and Maxillofacial Surgery, Tokat, Turkey

There are many factors such as gingival aesthetic, tooth color and shape affecting the success of esthetic restorations in the anterior region. Treatment options in the anterior region are porcelain laminate veneers, metal-ceramic restorations and all-ceramic crowns. Developments in ceramic core materials such as lithium di-silicate, aluminum oxide, and zirconium oxide allowed more widespread application of all-ceramic restorations and it has enabled the creation of more esthetic restorations. Zirconia supported fixed partial dentures (FPD) have widely increased the clinical indications of metal free prostheses, showing more favorable mechanical characteristics compared to the early ceramic materials. Zirconia restorations can also be used on molars with high strength. In this case report, esthetic prosthodontic rehabilitation of anterior region was presented in two cases.

Case 1; A patient (woman, 35) had the lack of maxillary right central incisor and gummy smile. She was uncomfortable with her smile and didn't like the appearance. Crown lengthening procedure with gingivectomy and zirconia supported FDPs were planned.

Case 2; A patient (woman, 40) had incompatible FDPs and gingival margin in the anterior region. In order to ensure more aesthetic appearance and patient comfort, gingivoplasty and six-unit FDPs were planned. The CAD-CAM technique (Tizian Cut 5 Smart, Schütz, Germany) was used for handling of zirconia frameworks (Tizian Blank, Schütz, Germany) in all crowns. Porcelain was veneered (Noritake Co, Japan) to zirconia copings with conventional techniques. And the restorations were cemented to the prepared teeth with polycarboxylate cement.

**P-080****Medication-Related Osteonecrosis of The Maxilla and Its Surgical Treatment: A Case Report**

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Osteonecrosis of the jaw is a serious complication associated with oral and intravenous bisphosphonate therapy. Reports of medication-related osteonecrosis of the jaw (MRONJ) have been reported in patients with cancer treated with multiple doses of IV zoledronic acid.

In this presented case a patient presented our clinic with exposed necrotic bone on right maxilla molar region. In patient's history; patient used multiple doses of IV zoledronic acid during cancer treatment and tooth 16 extracted from this area. Prior to our intervention necrotic bone curettage done at another center but there was no sign of healing. For surgical treatment of this exposed necrotic bone a mucoperiastal flap arised and an osteotomy done with osteotom from healty bone margin after the removal of necrotic bone the wound closed by primary principles.

**P-081****Marsupialization of Dentigerous Cyst**

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**Objective:** Dentigerous cyst is a type of odontogenic cysts and generally occurs in the ages of twenties or thirties. Dentigerous cyst always includes a tooth which cannot complete the eruption process and occurs around the crown by the fluid accumulation between the layers of enamel organ. In this report, a case of dentigerous cyst in primary dentition in a 10-year-old child patient and its treatment by marsupialization, were presented.

**Methods:** Panoramic and periapical radiographs revealed a unilocular cystic radiolucency around the roots of the deciduous second molar. In addition, the tooth germ of the second premolar was involved and medially displaced. The cyst was marsupialized and the patient was checked weekly. The patient and her parents were instructed to irrigate or rinse the cavity with saline solution twice a day.

**Results:** Two months after the surgical procedure the impacted tooth was completely erupted without orthodontic traction and therapy.

**Conclusion:** Previous studies supported the effectiveness of cyst marsupialization, presenting axis inclination of the tooth in the alveolar bone, root maturity and space availability as predictive indicators of further tooth eruption. An impacted tooth without complete root formation with an open apex has considerable potential to erupt, once the eruption potential is closely related to root formation. In the present case the tooth erupted only by marsupialization without orthodontic traction; all the above mentioned factors were favorable: no inclination of the tooth, incomplete root formation





## P-082

**Surgical Treatment of Macroglossia with Key-Hole Design:  
A Case Report**

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**Introduction:** Aetiology of macroglossia may be acquired, congenital and syndromic. Macroglossia hinders growth of the adjacent tissues leading to uncoordinated anatomical relationship causing malocclusion, making speech and mastication problematic. In case of syndromes and genetic conditions, symptomatic surgery is the most popular treatment modality.

**Case:** The 10 years 5 months old female patient referred to the department of orthodontics with chief complaint of anterior position of her mandible and accompanying difficulty in speaking and chewing functions. During clinical examination she was diagnosed to have skeletal Class 3 malocclusion and polidiastema in the mandibular arch associated with macroglossia. Phenotypical appearance of the patient was compatible with frontonasal dysplasia. But genetic analysis revealed no genetic mutations related to this syndrome. Patient was referred to the department of oral and maxillofacial surgery for tongue reduction procedure to be able to contract the mandibular arch and prevent its relaps after maxillary protraction by using orthopaedic facemask was completed. Anterior wedge resection with posterior extension to the superior part of the tongue was performed under general anaesthesia. Coblator (Coblator II, Smith & Nephew plc, 15 Adam Street, London, WC2N 6LA, UK) was used to reduce muscle mass at the posterior part of the tongue and attention was paid to preserve anatomical structures such as nerves and arteries. Coblator system dissolves tissue at the molecular level in a highly-controlled manner with minimal thermal effect on surrounding tissue, thus minimize oedema and related post-operative complications. Haemorrhage was controlled with bipolar cautery and wound margins were closed in a layered fashion with vicryl sutures. No post-operative complication developed and proper healing was achieved. The patient was highly satisfied in terms of taste perception, swallowing and speech function at the end of healing period.

**Conclusion:** The purpose of tongue reduction technique is to reduce the volume of tongue in all three dimensions with preservation of form, motor and sensory functions as much as possible. It is essential for closing wide spaces in a large mandibular arch when an excessive sized tongue is the major reason of spacing. Glossectomy performed with the appropriate technique can be used as a reliable method for treatment of polidiastema by contracting mandibular arch and for preventing space reopening.



## P-083

**Osteoma of the Mandibular Condyle**Burak Cezairli<sup>1</sup>, Cem Üngör<sup>2</sup><sup>1</sup>Ordu Üniversitesi Diş Hekimliği Fakültesi Ağız Diş ve Çene Cerrahisi<sup>2</sup>Karadeniz Teknik Üniversitesi Diş Hekimliği Fakültesi Ağız Diş ve Çene Cerrahisi

Osteoma is a benign tumour consisting of mature bone tissue. It is essentially restricted to the maxilla and mandible, and is rarely seen in other bones. Multiple osteomas could be present in the alveolar bone of the maxilla or mandible in disease like Gardner syndrome. Osteoma is a slow-growing, asymptomatic and usually solitary lesion which affects mostly young adults. Involvement of the temporomandibular joint have been reported only in a few cases. Osteomas of the condyle or condylar process may result in morphologic and functional disturbances, including facial asymmetry and temporomandibular joint dysfunction.

A 26-year-old woman presented to our department with difficulty in mouth opening since 5 years. Her chief complaint was facial asymmetry due to a diffuse swelling on her right temporomandibular joint area. Jaw movements were slightly limited and there was no pain during function. Skin color was normal and palpation of the area was painless. Orthopantomogram showed a well-circumscribed, radiopaque mass on right TMJ region overlaying the condylar surface. CT study revealed a hyperdense mass on right TMJ region measuring 25 mm mediolaterally and 18 mm anteroposteriorly.

Patient was operated under endotracheal general anesthesia with a preauricular incision. Superior and lateral part of the lesion were resected while protecting the condylar process. The patient did not develop facial palsy. No recurrence was observed, and recovery was good at six months postoperatively. Due to extrusion of the molars on right side a reduced occlusal cant was still present post-operatively. An orthognathic surgery was planned to restore facial asymmetry and occlusal function.

Osteoma of the condyle may cause a slow, progressive shift in occlusion, with deviation of the midline of the chin toward the unaffected side which results in facial asymmetry and malocclusion. In osteoma in the mandibular condyle, acute pain or limited-mouth-opening is rarely observed. In our patient, CT at initial examination revealed swelling of the lateral temporomandibular joint. There are 2 types of osteoma. One of them is central osteoma, arising from increase in cancellous bone, and second one is peripheral osteoma, arising from increase in cortical bone. In the present case, even though no condylectomy was performed limitation of mouth-opening disappeared. Surgical removal of the nidus and some of the surrounding normal bone is the usual treatment. After the nidus is removed, all symptoms eventually disappear. Recurrence can be seen in incompletely excised lesions.

**P-084****Focal Osteoporotic Bone Marrow Defect: An Unusual Presentation and A Rare Pathology**

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Focal osteoporotic bone marrow defects are usually asymptomatic and incidentally discovered lesions which appears as localized, poorly demarcated radiolucencies on radiographs. The characteristic occurrence site is posterior mandible and middle-aged female patients are usually affected. Although several theories have proposed, the exact pathogenesis is still uncertain.

An unusual case of focal osteoporotic bone marrow defect occurring in anterior mandible region of a healthy 34-year-old man is presented in this case report.

**P-085****Odontogenic Fibromyxoma of the Mandible in an Old Patient: A Case Report**

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**Objective:** Myxoma is an uncommon tumor which has several mixed types, such as fibromyxoma, lipomyxoma, fibrolipomyxoma, or odontogenic fibromyxoma. The term "odontogenic fibromyxoma" is often used when the tumor occurs in the jaws to reflect its odontogenic origin like dental papilla, dental follicle and periodontal membrane. It is well-known that the myxomatous tumors of the jaws are locally aggressive with a tendency to recur and progress if inappropriately managed; however, they are non-metastasizing. They frequently occur in 2nd and 3rd decades of life. Mandible is more frequently affected than the maxilla. Females are more commonly affected than males. The surgical treatment of the fibromyxoma involves enucleation and curettage, radical excision or bloc resection.

**Methods:** A case of odontogenic fibromyxoma involving the angle of the mandible is reported. 62 years old woman with several systemic diseases which are hypertension, arrhythmia, scleroderma and rheumatoid arthritis; referred to dental examination. The intraosseous lesion was asymptomatic and presented multilocular radiolucency with well-defined borders. Incisional biopsy was performed and the histopathological examination revealed the lesion as fibromyxoma. Some nests of odontogenic epithelial cells and calcified materials were found in the biopsy material. Excision of the tumor mass through an extra oral approach with conservative bone window, under general anesthesia was done.

**Results:** The area healed uneventfully and no recurrence of the lesion with good intraoral healing was encountered in 10 months follow-up period.

**Conclusions:** The diagnosis of odontogenic fibromyxoma is a correlation of clinical, radiological and histopathological features. They are slow-growing benign tumors and can cause gradual expansion of the cortical plates but perforate the cortex only if they reach great size. A complete surgical excision along with proper long term follow up is essential, due to the possibility of recurrence of the myxomatous tumor. The primary treatment considerations include the age of the patient and the potential recurrence of the lesion.

**P-086****Management of Two Different Large Cystic Lesions  
Located in the Posterior Mandible**

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There are several mechanisms explaining the cyst enlargement such as increase in the volume of contents, epithelial proliferation for the epithelial-lined cysts, increased osmotic pressure, displacement of surrounding soft tissues and resorption of the peripheral bone. As the cysts of the jaws enlarge, they may cause destruction of the bone, displacement of the teeth, resorption of the roots, damage to the anatomic structures and pathologic fractures. Marsupialization is a conservative surgical intervention for the treatment of large jaw cysts. It describes a surgical technique in which a small window providing access to the cystic cavity is created and the opening is temporarily kept using a device like tube or stent. Marsupialization may be performed as a definitive treatment or prior to enucleation. In this paper, treatment of two large jaw cysts; a dentigerous cyst and traumatic bone cyst, both of which were located in the posterior mandible and extending to the ascending ramus is reported. Although curettage of the walls of the bony cavity is the most common treatment approach for traumatic bone cysts, as the cyst size was extensive and to access all the cavity walls was not feasible, we preferred to perform marsupialization. Thus, faster shrinkage of the lesion and prevention of a pathologic fracture was provided.



**P-087****Three Dimensional Evaluation of Facial Soft Tissue Changes of Two Cases After Le Fort I Osteotomy**

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**Objective;** The treatment with Le Fort I surgery lead to evident soft tissue changes. The aim of this case report to present the three dimensionally assessment of facial soft tissue changes of two cases treated with Le Fort I osteotomy.

**Methods;** Two female patient had Class III malocclusion and orthognatic surgery, in conjunction with orthodontic treatment was planned. Patients underwent maxillary advancement. 3D facial photographs were taken after decompensation period, preoperatively (T0) and 5 months postoperatively (T1) using a 3D stereophotogrammetry camera (3dMDface System; 3dMD LLC, Atlanta, GA, USA). Facial anthropometric measurements were performed using the 3dMD software (3dMD Vultus® software Version 2.3.0.2, 3dMD, Atlanta, GA, USA). A surface based matching procedure for the pre and post-operative 3D photographs was performed with the same software. On the matched 3D photographs a distance map was created giving an indication of the soft tissue changes.

**Results;** After Le Fort I surgery, Class I canine and molar relationships were achieved. Postoperative soft tissue changes showed increases in facial width, mouth width, upper philtrum width, nose width, nasal volume, upper lip volume midface and upper lip volume.

**Conclusion;** After Le Fort I osteotomy, soft tissue changes is seen around the midface and around the upper lip and these changes can be evaluated accurately by special softwares.



**P-088****Dental Fragment Embedded in the Upper Lip after Facial Trauma: A Case Report**

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**Introduction:** Dental traumas are one of the most frequent facial traumas especially in children. Maxillary incisors are the most frequently involved teeth. Soft tissues (lips and/or oral mucosa) adjacent to incisal edge can receive direct and/or indirect traumas and teeth fragments could be embedded in this soft tissue. For this reason, simple radiograph could be useful in the teeth fragments detection. We present a report of a child who sustained a crown fracture with lost portion of tooth embedded in her upper lip for 2 days. The tooth fragment in upper lip was accidentally detected to our radiographic examination.

**Case Report:** A 12-year-old male child referred to the Department of Oral and Maxillofacial Surgery from emergency department following trauma to the maxillary lateral incisor. Routine radiograph confirmed the presence of a tooth fragment in the upper lip and. The fragment was surgically retrieved and successfully reattached to the fractured left maxillary lateral incisor using acid-etch resin technique.

**Conclusion:** Tooth fragment reattachment procedure offers ultra-conservative, cost effective, safe, fast and esthetically pleasing results when fragment is available. Every attempt should be made to locate the missing tooth structure through a detailed history of the accident, careful examination and radiographs.

**P-089****Cleft Palate Repair by Using Archwise Distraction Appliance (AWDA)**

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Cleft lip and palate (CL/P) is a frequent congenital malformation that manifests in several varieties including unilateral or bilateral and complete or incomplete. Alveolar clefts are commonly treated by a bone grafting procedure. The closure of wide alveolar clefts is challenging because of the difficulty in achieving complete closure by using local attached gingiva and the great volume of bone required for the graft. In the last decade, interdental distraction osteogenesis has been introduced as a successful treatment protocol for repairing such large clefts. In this poster presentation, a new method ( archwise distraction appliance) for closing the alveolar cleft is introduced by describing one case.

**P-090****Enucleation of The Large Dentigerous Cyst Associated with Impacted Mandibular Third Molar: A Case Report**

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**Objectives:** Dentigerous cysts are the second most common type of odontogenic cysts and also the most common developmental cysts of the jaws. Treatment modalities range from enucleation to marsupialization. Removal of the associated tooth and enucleation of the lesion are considered as a definitive therapy in this case.

**Case:** A 24 year old female patient was referred to our clinic by a dentist due to radiolucent lesion on the left mandible that was noticed during a routine radiological assessment. The patient was asymptomatic but a slight swelling on the left cheek. Radiographic examination revealed large lesion which is extending from angle of mandible to the ascending ramus and associated with left third molar tooth. Enucleation of the lesion was performed under the local anesthesia with extraction of associated tooth.

**Results:** Result of the histopathological examination confirmed the diagnosis as dentigerous cyst for this case. The patient was undertaken follow-up period with 3-months intervals. Solid bone regeneration was observed in the lesional area in the radiographic examination at 3rd and 6th month follow-up control.

**Conclusion:** The original features of this case among the others are the extent of the lesion, the provision of adequate bone regeneration without the use of any graft material, and also no nerve injury was seen after the operation. The cyst was successfully treated with enucleation and extraction of impacted tooth.

**P-091****Trans-Sutural Distraction Osteogenesis for Maxillary Advancement in Growing Patients: A Case Report**

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**Objective:** Trans-sutural distraction osteogenesis (TSDO) is a minimal invasive alternative maxillary advancement treatment approach in growing patients with maxillary retrognathie. Craniofacial sutures are soft connective tissue attachment between cranial bones. Orthodontic mechanical stimuli with temporary anchorage devices (TADs) on maxilla can regulate sutural growth and occur anabolic changes such as increased sutural widths, angiogenesis and bone apposition that may provide TSDO in growing patients with maxillary retrognathie. This case report deals with the treatment of a growing female patient with maxillary retrognathie using a combined surgical and orthodontic treatment approach.

**Methods-Materials:** This case describes the treatment of a maxillary retrognathie 11 years old female by using TADs that were inserted in the lateral wall of the anterior nasal aperture. TADs were shaped to the anatomical structures and fixed with monocortical miniscrews. Orthodontic mechanical stimuli forces about 300 g applied with elastics and petit type reverse pull headgear (RPHG) to the maxilla.

**Results:** After 6 months of active treatment positive overjet and maxillary retrognathie were achieved and overbite corrected with maxillary clockwise rotation. The pre and posttreatment lateral cephalometric superimposition showed a favourable increase of 3.6 mm on anterior nasal spine.

**Conclusions:** These results demonstrate for the TSDO that treatment effects of surgical and orthodontic cotreatment on maxillary advancement might provide more skeletal effects. This treatment was an acceptable alternative methods to maxillary advancement with tooth-borne RPHG and osteotomies on maxillary retrognathie.

**P-092****Intralesional Corticosteroid Injection for Treatment of Central Giant Cell Granuloma**

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**Objective:** Central giant cell granuloma (CGCG) is widely considered to be non-neoplastic lesions. According to the World Health Organization, CGCG is an intraosseous lesion consisting of cellular fibrous tissue that contains multiple foci of hemorrhage, multinucleated giant cells, and trabecules of woven bone.

**Method:** A 14-years-old male patient came with the complaint of swelling over the left side of the maxilla. Panoramic radiography revealed an unilocular radiolucent lesion which related impacted canine. Incisional biopsy was performed under local anesthesia and confirmed the diagnosis of CGCG. Intra-lesional steroid injections of 2mL per injection of ( 40 mg triamcinolone with articaine) was administered 6 times in two week intervals. This procedure repeated after six months because of slow regression. The radiolucent lesion decreased in size gradually over the follow-up period. Surgical curettage was scheduled for the residual lesion.

**Result:** Intralesional corticosteroid injections resulted in regression of the lesions and callus formation at the sites of bone resorption on radiographs during follow-up. Impacted canine tended to eruption.

**Conclusion:** Surgical curettage or excision and radiation therapy have been reported as treatments for CGCG, in addition to intralesional steroid injection. Intralesional steroid injection appears to be the most minimally invasive procedure for this lesion. This technique is safe and may be first choice.

**P-093****Dentigerous Cyst in A Six Years Old Child: A Case Report**

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Dentigerous cysts are very common developmental cysts which usually involve impacted, unerupted permanent teeth, supernumerary teeth and rarely deciduous teeth. Dentigerous cysts account for approximately 24% of all true cysts in the jaws and the second most common odontogenic cysts after radicular cysts. Dentigerous cysts often show no symptoms, and they are usually discovered when radiographs are taken to investigate a failure of tooth eruption and malaligned or missing tooth. Though dentigerous cysts may be seen in patients across a wide age range, most frequently discovered in patients between 10 and 30 years of age. The frequency in the first decade of life is reported to be lower than in the second and third decades. Few of these cysts have been reported in children younger than 15 years of age. The aim of the present paper is to report a rare case of dentigerous cyst in a child with primary dentition, involving unerupted mandibular second premolar.



**P-094****Teriparatide Therapy for the Treatment of Advanced  
Bisphosphonate-related Osteonecrosis of the Jaw:  
Case Report**

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Management of bisphosphonate-related osteonecrosis of the jaw (BRONJ) is challenging and present recommended treatment methods for BRONJ are still suboptimal. Currently, conservative treatment modalities are recommended for the treatment of BRONJ, in accordance with the American Association of Oral and Maxillofacial Surgeons (AAOMS) Position Paper. Recently, it has been reported that administration of teriparatide (TDTP, human parathroid hormone peptide 1-34) is an effective way for the resolution of BRONJ. A 32-year-old woman with osteonecrosis of the maxilla related to parenteral bisphosphonate therapy (17 years) for the treatment of osteogenesis imperfecta was referred to our hospital for treatment. The present paper reports and discusses a stage 3 BRONJ case in the right posterior region of the maxilla which was successfully treated after teriparatide therapy.

**P-095****Significance of Interpretation of Histopathologic Examination Reports in Large Jaw Cysts**

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Histopathologic analysis is the gold standart for the diagnosis of oral pathologies. Incisional and excisional biopsies are two principal surgical methods to obtain a specimen for microscopic examination. To remove sufficient tissue and careful handling, appropriate fixation are the key factors for an accurate and confident histologic diagnosis. Cystic lesions of the jaws have different characteristics and treatment modalities varies depending on the cyst type. For the management of large odontogenic lesions, after an incisional biopsy surgical methods like marsupialization or decompression are performed and the treatment is guided according to this biopsy result. As the cyst size sufficiently reduced, it is totally enucleated and specimen acquired for excisional biopsy. Analysis of the entire specimen is mandatory for definitive diagnosis. In this paper, we presented a case of a large, multilocular keratocystic odontogenic tumor in which incisional and excisional biopsies revealed different histopathologic conditions. We aimed to discuss the significance of interpretation of histopathologic examination reports.

**P-096****Surgical Treatment of Soft Tissue Necrosis Caused  
by Accidental Sodium Hypochlorite Extrusion During  
Endodontic Treatment**

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**Objective:** Sodium hypochlorite (NaOCl) is the most commonly used irrigant solution in root canal treatments due to its ability to dissolve organic soft tissue in the root canal system and its action as a powerful antimicrobial agent. When this solution is injected into the adjacent tissues, the patient usually experiences intense pain, it can cause complications ranging from minor discomfort to severe tissue damage and an urgent treatment should be implemented in order to prevent a long-term sequelae.

**Methods:** A 56 year-old female patient presented to the clinic with severe pain and swelling in the right upper lateral incisors apical area and the lip after the root-canal treatment for the right upper lateral incisor. During root canal procedure, the NaOCl solution used for root canal irrigation was extruded into the adjacent tissues, probably due to lateral perforation of the root canal. Extra oral examination revealed swelling from the right upper lip to the lower eyelid. Intraoral examination revealed necrosis of oral mucosa in the vestibul sulcus of the lateral incisor. Exploration of the wound and meticulous debridement of grossly necrotic tissue was done and apical resection was performed. After 2 weeks, the extra and intra oral swelling and symptoms had completely resolved.

**Conclusion:** The patient was recalled after 2 months, clinical examination revealed uneventful and satisfactory healing.



## P-097

**Rapidly Progressive Radicular Cyst: A Case Report**

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Radicular cysts are the most common type of cystic lesions occurring in jaws. They originate from epithelial remnants of the periodontal ligament as a result of inflammation that is generally a consequence of pulp necrosis. Caries is the most frequent aetiological factor of radicular cysts in the primary dentition. They may also be a result of traumatic injuries to primary teeth.

Most radicular cysts develop slowly and do not reach very large borders. Patients do not experience pain unless acute inflammatory exacerbation is present and the lesions are often detected only during routine radiographic examination. If the cyst becomes larger, symptoms including swelling, mild sensitivity, tooth mobility, paresthesia and displacement may be observed. The affected tooth does not respond to pulpal, thermal or electrical vitality tests. The radiographic pattern of radicular cysts are observed with generally loss of the lamina dura along the adjacent root, and a round or oval radiolucent lesion circumscribed by a well-defined radiopaque line involving the tooth. This radiopaque line sometimes can not be seen in infected or rapidly growing cysts.

In our case, a small radicular lesion between mandibular canines (2.3 x 1.3 cm) was observed at the anterior mandible and the patient was consulted to endodontics department. But patient neglected the endodontic treatment. After 4 years, he referred to our clinic again with pain and paresthesia at anterior mandible. Radiographic examinations were performed and very large (8,3 x 2,3 cm) bilaterally mandibular cyst between mandibular second molars, was seen. A large surgical enucleation and multiply apical resections were performed while preventing mental and inferior alveolar nerves bilaterally. After reposing the mental nerve and surgical enucleation, all symptoms including paresthesia has disappeared.

As a conclusion, while the treatments of the small radicular cystic lesions could be treated with only endodontic treatment or conservative surgery, neglectation of the treatment would make the surgery more complex and that may give rise serious complications such as neurosensorial disturbances and fractures of jaws.

**P-098****Adenoid Cystic Carcinoma Treatment with Hemimaxillectomy: A Case Report**

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**Introduction:** Adenoid cystic carcinoma (ACC) of the minor salivary glands is rare and presents as a unique subset of minor salivary gland tumors that carry with its different characteristics. ACC is characterized by slow growth and a high potential for recurrence and perineural invasion is a common histopathologic feature of these tumors. The palate/maxilla is the preferred location for occurrence, and initial presentation at stage IV is common.

**Case:** 36 year-old female patient was referred to our department with the chief complaint of swelling on the left posterolateral portion of hard palate since 2 months. No regional lymphadenopathy was found. The incisional biopsy was performed under local anaesthesia and ACC was diagnosed histopathologically. Then hemimaxillectomy was performed for treatment of ACC under general anaesthesia.

**Discussion:** The minor salivary gland ACC is a rare tumor of the head and neck, commonly presenting in the palate with a tendency for late local and/or distant recurrence. Excision can be complicated by an infiltrative growth pattern making resection clearance difficult. Perineural invasion is a common histopathologic feature and carries with it a poor prognosis. Neck dissection is generally not indicated unless clinical sign of disease is present.

**P-099****Treatment of Mandibular Micrognathia with Distraction Osteogenesis**

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Several surgical treatments have been described for the treatment of the patient with micrognathia. The two most common methods of mandible advancement are the bilateral sagittal split osteotomy, as first described by Obwegeser, and mandibular osteotomy with application of bilateral distraction devices, as described by Guerrero and colleagues. Distraction osteogenesis is a method that induces partial new bone formation and increases bone volume. Mandibular distraction osteogenesis (MDO) has become an accepted method of treatment for patients requiring reconstruction of hypoplastic mandibles and may achieve mandibular lengthening without need for bone graft. The purpose of this presentation is to report the treatment of a case with micrognathia by bilateral distraction osteogenesis of mandible



**P-100****Nevoid Basal Cell Carcinoma Syndrome  
(Gorlin-Goltz Syndrome): A Case Report**

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Nevoid basal cell carcinoma syndrome, or basal cell nevus syndrome (Gorlin syndrome), is a rare autosomal dominantly inherited disorder that is characterized by development of basal cell carcinomas from a young age. Other distinguishing clinical features are seen in a majority of patients, and include keratocystic odontogenic tumors as well as dyskeratotic palmar and plantar pitting. A range of skeletal and other developmental abnormalities are also often seen. Diagnosis may be difficult because of the variability of expressivity and different ages of onset for different traits of this disorder. The dental clinician may be the first to encounter and identify this syndrome, when the cyst like radiolucencies are discovered on panoramic view. This article reports a case of nevoid basal cell carcinoma syndrome and provides an overview on diagnosis and management.

**P-101****Autotransplantation of Teeth As a Treatment Option:  
A Case Report**

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**Objective:** The objective of this case is to assess the autotransplantation of teeth as an alternative treatment option.(1,3)

**Case:** A 29-year-old female patient was admitted due to pain in her mandibular right second molar tooth. Clinical and radiological examination revealed that her tooth #47 had profound caries and crown destruction, and she had impacted tooth #48. The patient had low economic condition and tooth #48 had a regular crown and root shape, so tooth #47 was extracted and impacted tooth #48 was autotransplanted to the corresponding extraction site. Contemporary semi-rigid splint with wire and composite resin was done between tooth #45 and autotransplanted tooth. After 10 days, endodontic treatment was performed to the transplanted tooth. After 15 days, splint was removed. The patient was followed up for 12 months with uneventful healing and function.

**Conclusion:** It can be concluded that autogenous tooth transplantation can be considered as a viable treatment option when well indicated, planned and performed in young patients with low economic conditions; allowing the re-establishment of the function and aesthetic.(2)

**P-102****Inferior Alveolar Nerve Transposition and Lateralization:  
Case Comparison**

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For the last two decades, dental implant placement has been a popular option for the treatment of the edentulous mandible. The height deficiencies of the posterior mandibular ridges can be rehabilitated different routes including; onlay bone grafting, interposition bone grafting, vertical alveolar osteodistraction, nerve lateralization and transposition, and a combination of nerve repositioning inlay bone grafting. In such cases, where the vertical distance between the ridge crest and the alveolar nerve is significantly reduced, we used these technique. A remaining 5-8 mm of bone is required in the literature for the Inferior alveolar nerve (IAN) repositioning. Repositioning of the inferior alveolar neurovascular bundle from its bony canal within the mandible can be undertaken into two ways:1) with preservation of the incisive nerve and lateralization of the inferior alveolar neurovascular bundle posterior to the mental foramen, which is called nerve lateralization (NL), and (2) nerve repositioning with the sacrifice of the incisive neurovascular bundle and mental foramen transposition, which is called nerve transposition. In these case reports we present the treatment procedures of two patients suffering from edentulous atrophied posterior mandible. One of these patients had undergone IAN transposition and the other one (Case2) had undergone lateralization. IAN repositioning was performed with simultaneous implant placement, under general anaesthesia.

**P-103****Reconstruction of The Soft Palate Defect with  
Pedicled Buccal Fat Pad. A Case Report**

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**Objective:** Soft palate defects may be closed by different methods. Free radial forearm flaps, pharyngeal tube flap, palatoglossal rotation flaps and padicled buccal fat pad are some of these alternative options for soft palate reconstruction. The pedicled buccal fat flap conveniently and reliably repairs oral defects up to 4.5 cm in diameter on the ipsilateral side of the soft and hard palate. Another advantage of pedicled buccal fat pad is the simplicity of the surgical technique.

**Report of The Case:** A 63 year old female patient with pleomorfic adenoma located in the left maxillary hard and soft palate is presented in this paper. Following removal of the tumor a left pedicled buccal fat pad is prepared for the closure of the left sof palate defect. The soft palate defect had been closed by buccal pedicled flap. After 3 weeks the fat pad fully ephitelialized. There were no necrosis and fistula. The flap's thickness was adequate.

**Conclusion:** Pedicled buccal fat flap is usefull donor site for the reconstructions of surgical defects following benign tumoral lesions of the hard and soft palate or posterior maxilla and mandible. Their minimum post-operative donor site morbidity makes this option so useful.

**P-104****Clinical Series of Keratocystic Odontogenic Tumors  
Involving The Ramus of The Mandible**

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**Objective:** Keratocystic odontogenic tumors (KCOT) are developmental odontogenic cysts derived from the remnants of the dental lamina, and are known as *benign cystic neoplasm* for its high recurrence rate and aggressive behavior. These cysts mostly develop as single lesions in the posterior mandible extending from angulus mandible to ascending ramus and corpus mandible where remnants of the dental lamina are most likely to be the source of epithelium. Nevertheless lesions can be seen as multiple cysts with many distinguishing clinical and histologic features. In the initial stage, KCOTs remain asymptomatic and were found on routine radiographic examinations. However larger lesions produce swelling of the jaw with facial asymmetry and pain. The cyst spread via the medullary spaces of bone and so bony swelling can not seen even if the lesion is large. The aim of this report is to evaluate conservative surgical management of five cases of KCOT involving the ramus of the mandible and also enclosed to the inferior alveolar nerve.

**Method:** Five patients with final diagnosis of keratocystic odontogenic tumors between 2014 to 2016 were included in this study. There were 4 female and one male patients with an average age of 46.3 years (age range 18–57 years). The lesions were noticed during a routine radiographic examination in all patients and dimensions of which varied from 3 cm to 11 cm. Radiographic findings in all cases showed a well demarcated radiolucency extending from angulus mandible to ramus mandible enclosed to the inferior alveolar nerve. Only one case was associated with an impacted third molar. Surgical removal of KCOTs by enucleation with curettage using an intraoral approach were performed. In all cases, it was taken care to remove the cyst epithelium in one piece and the application of Carnoy's solution was avoided because permanent damage of inferior alveolar nerve and prolonged healing following treatment may cause. During the the 11 month to 2 year period of follow up, no recurrences were observed. Histopathological analysis of two cases had shown corrugated parakeratotic epithelial cells in the luminal surface with basal cell palisading, however, orthokeratotic cells and poorly organized basal layers were observed in other cases.

**Conclusion:** KCOT is one of the most aggressive odontogenic cysts with a high recurrence rate. Surgical approaches to KCOT involve decompression, marsupialization, enucleation with or without Carnoy's solution and resection. Future treatment may include molecular-based modalities, which may reduce or eliminate the need for aggressive surgical management.

**P-105****Internal Fixation of Mandibular Angle Fractures with  
The Champy Technique**

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Fractures of the angle of the mandible are prone to complications including malocclusion and non-union. Although a standard rigid fixation technique allowing immediate load bearing using large plates and tension bands has a long track record, the non-rigid mono-cortical plate technique using load sharing engineering principles popularized by Champy has gained the confidence of many surgeons. This is a case report of displaced fracture angulus of mandible on left side which was treated with open reduction and internal fixation using Champy's mini plating system.

**Material and method.** A 18 years old female patient was referred to the private hospital with a history of road traffic accident and sustained facial injury with no other systemic problems. Intra oral examination revealed to have deranged occlusion. The fracture fragment was displaced downwards & buccally leading to anterior open bite. The medical history of the patient was noncontributory. CT view of mandible showed that the fractured fragment was buccally displaced. After clinical and radiographic evaluation the case was diagnosed as right nondeplacement and left angulus fracture of the mandible. Operation was occurred under general nasotracheal narcosis. Intraoral labial vestibular incision was given from 36-38 fracture sites, then the fracture segments were reduced to anatomical position. After achieving functional occlusion, temporary IMF was done. Then the fractured segments were fixed with one 2mm 5 hole stainless steel miniplates. All plates were secured using 2X8 mm screws.

**Result.** Post operatively after 4 week follow up clinical evaluation revealed no mobility of the fracture fragment and correction of anterior open bite, and radiographic evaluation revealed proper anatomic reduction of the fracture segments with no other post operative complications.



**P-106****Implant Treatment of a Non-syndromic Patient with Multiple Impacted Teeth: A 5-year Follow-up Case Report**

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**Objective:** Multiple impacted teeth is a rare condition and often found in association with syndromes such as Cleidocranial Dysplasia or Gardner. In absence of a syndrome it can be concluded as a non-syndromic origin and isolated phenomenon. Management of cases with multiple impacted permanent teeth, will present an unique challenge in placing dental implants. A treatment alternative included extraction of the primary teeth leaving the impacted permanent teeth to assist in maintaining adequate bone stock for an overdenture.

The aim of this report is to present the diagnosis and implant supported prosthetic rehabilitation of a non-syndromic patient with multiple impacted teeth.

**Method:** We describe a 43-year-old male patient with multiple impacted teeth involving both jaws who had no systemic disorder or syndrome. Implant treatment was performed without extraction of deep impacted teeth and the treatment was completed with fixed prosthesis.

**Result:** Optimum function and aesthetic was ensured. A 5- year follow-up was uneventful.  
**Conclusion:** Interdisciplinary care for the management of impacted teeth provides a holistic method of treating patients. Careful planning is necessary to reach the desired treatment goals.

**P-107****Management of Temporomandibular Joint Ankylosis with Gap Arthroplasty and Temporalis Fascia Flap**

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**Aim:** The purpose of this paper is to show that gap arthroplasty or interpositional arthroplasty with temporalis muscle and fascia flap improve mouth opening when treating TMJ ankylosis.

**Material-Methods:** Three patients who presented with ankylosis of the TMJ underwent surgical release. Two patients with TMJ ankylosis were treated by gap arthroplasty and in one patient After performing gap arthroplasty through a preauricular approach, the temporalis fascia flap was transposed to the gap.

**Results:** Of the three patients (four joints), two had unilateral involvement and one patient had bilateral involvement. The mean age was 33 years. The mean maximal incisal opening (MIO) in the preoperative period was 6 mm and in the postoperative period it was 33 mm. No recurrence or complication of temporary facial nerve paresis was observed in our series.

**Conclusion:** Management of TMJ ankylosis is mainly through surgical intervention. It is necessary to use an interpositional material to prevent TMJ re-ankylosis after arthroplasty. The most commonly used interposition material is temporalis muscle flap. The main advantages of this approach are its autogenous nature, proximity to the TMJ and hidden scar in the scalp. Inadequate exposure of the TMJ region for not to know on the adjacent structures (facial nerve, carotid, jugular and maxillary vessels) often leads to insufficient removal of the ankylotic bone, thus leading to a recurrence of the problem. The most frequently reported complications after treatment of ankylosis are limited mouth opening and re-ankylosis. Early postoperative initial exercise, physiotherapy, and strict follow-up play an important role in preventing postoperative adhesions.

**P-108****Cherubism: Report of a Case and Literature Update**

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**Introduction:** Cherubism is a nonneoplastic, self limiting fibroosseous condition that involves bilateral swelling of the maxilla and/or the mandible. It was first described by Jones in 1933 as a familial multilocular cystic disease of the jaws. The disease got its name as it resembles the faces of cherubs found in Renaissance art with upward gaze of the eyes and swollen cheeks

**Case:** A 4-year-old boy presented with a painless progressive swelling of both cheeks present from the age of 2 year. Intraoral examination revealed a healthy primary dentition and normal soft tissues. Panoramic radiography showed involvement of both the mandible and the maxilla, representing a soap bubble-like multilocular radiolucency with thin and expanded cortices. CT scanning helped to provide a clear delineation of the extent of disease, which was difficult on radiographs due to the overlap of the facial bone. Biopsy was not performed due to the small age of our patient. In the present case, the final diagnosis was cherubism and no surgical intervention was performed and the patient was followed up at regular intervals

**P-109****An Alternative Treatment for Recurrent Dislocation of the Temporomandibular Joint: Prolotherapy Technique**

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**Introduction:** Conservative interventions with simple procedures and predictable benefits are expected by patients with recurrent dislocation of the temporomandibular joint (TMJ).

**Case:** The purpose of the present case report was to evaluate the effectiveness of prolotherapy technique in the treatment of recurrent temporomandibular joint dislocation.

We have introduced a case report that we have used prolotherapy technique that included injection of 10% dextrose at a single site in the posterior periarticular tissues. The patient tolerated the injections well. And after therapy she did not show new episodes of dislocation. The prolotherapy is simple, safe, and cost-effective for the treatment of recurrent dislocation of the TMJ.

**P-110****Angiolipoma of The Buccal Mucosa: A Case Report**

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**Objective:** Angiolipoma (AL), a subtype of lipoma, is a benign subcutaneous lesions most commonly affecting young male patients in the second or third decades of life. AL is very rarely found in the soft tissue of the oral region. Regardless of its origin, the classification of AL is separated into infiltrating and noninfiltrating types. A non-infiltrating angiolipoma will be presented in this case report.

**Methods:** A 55 years old men was referred our clinic due to painless swelling in his right cheek. A physical examination revealed a circumscribed nodule of 40X 30 mm. There was no audible bruit or thrill and facial nerve function was intact. MRI was done for localization and border of the lesion. Excisional biopsy under local anesthesia was planned for diagnosis.

**Results:** Gross examination showed a 54 X 45 X 22 mm, multilobulated mass surrounded by a thin capsule. Histopathological analysis of the tumor showed mature adipocytes and thick blood vessel walls. In the light of these findings non-infiltrative angiolipoma was final diagnosis. There has been no recurrence for one year follow-up.

**Conclusions:** In conclusion conservative excision is sufficient and suitable treatment for non-infiltrating ALs.

**P-111****Conservative Treatment of Keratocystic Odontogenic Tumors - Case Report**

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The keratocystic odontogenic tumour is a histopathologically and behaviorally unique, specific entity. It is the most aggressive and recurrent of all the odontogenic cysts and shows characteristics resembling both a cyst and a benign tumour. Studies fail to present any consensus on a uniform treatment protocol for keratocystic odontogenic tumour. Surgical approaches were introduced marsupialization, enucleation and resection. Marsupialization was performed for lesion decompression and consequent lesion size reduction. This case report presents the marsupialization procedure for the treatment of 2 keratocystic odontogenic tumours.



### P-112

### The Effect of Religious Belief on Selecting of Graft Materials Used in Maxillofacial Surgery

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**Objective:** Various graft materials such as synthetic and biological products are used routinely in maxillofacial surgery. Biologic products are usually derived from porcine, bovine, and human tissues, and it is known that some religious beliefs forbid the dietary use of substances from certain animal sources. The aim of this study was to evaluate the effect of religious belief on selecting of the different types of grafts used in maxillofacial surgery.

**Methods:** A total of 102 participants were included in survey. The data were collected using a questionnaire form on socio-demographic characteristics, the different graft types and the Revised Religious Fundamentalism Scale (RFS-R) for religious belief levels measure of participants. The purpose of the study and the origins of the different graft types were explained to the participants, and their opinions regarding the acceptance or rejection of each type were acquired. The data were analyzed using SPSS version 20.0. Statistical analyses were used Chi-square, Fisher's exact test, Student's t-test and One-way ANOVA.

**Results:** The most accepted grafts by the participants were autologous grafts (84.3%), while the least preferred grafts were porcine-derived xenografts (1%). The most refused grafts were porcine-derived xenografts (99%), followed by allografts (66.7%), bovine-derived xenografts (54.9%), alloplastic grafts (50%) and autologous grafts (15.7%). There was no statistical difference between the religious belief levels of participants accepted and refused autologous, allografts, bovine-derived xenografts and alloplastic grafts ( $p>0.05$ ). Because only one of participants accepted the porcine-derived xenografts, statistical analysis related to the religious belief level and the preference of these graft materials was not made. However, it was determined that the reasons for refusals for porcine xenografts were "religious reasons" (78.4%), "animal-derived product" (11.9%); for bovine xenografts were "animal-derived product" (69.6%), "infection transmission risk" (17.9%), "religious reasons" (5.4%); for allografts were "infection transmission risk" (73.5 %), "foreign product" (10.3%), "human-derived product" (8.8%), "religious reasons" (4.4%); for alloplastic grafts were "foreign product" (66.7%); for autologous grafts were "infection fear" (31.3 %) and "other reasons" (37.5%)

**Conclusions:** It was determined that most accepted grafts were autologous grafts, and the least accepted grafts were porcine-derived xenografts, and the porcine xenografts were especially refused because of religious reasons. For this reason, apart from the various biological, chemical, structural and mechanical properties of graft materials used in maxillofacial surgery, religious beliefs of patients must also be taken into account while selecting these products. Surgeons should know the sources of these products, and patients should be informed about the sources of these products.



## P-113

**Three Dimensional Evaluation of Facial Soft Tissue Changes After Orthognathic Surgery for Class III Open Bite Malocclusion with Mandibular Asymmetry: A Case Report**

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**Objective;** The treatment with orthognathic surgery lead to evident soft tissue changes. The aim of this case report to present the three dimensionally assessment of facial soft tissue changes of a case with class III open bite with mandibular asymmetry treated with orthognathic surgery.

**Methods;** A 25 year-old male patient had open bite, concave profile and facial asymmetry. Orthognathic surgery, in conjunction with orthodontic treatment was planned. After the decompensation treatment, the canine relationship was Class III on the both side, his overjet was -2 mm and overbite was -3 mm. According to the facial midline, dental midline was symmetric in maxillary arch, however it was shifted approximately 3 mm to the left side on mandible. The patient underwent maxillary advancement, impaction, mandibular set back and clockwise rotation of the mandible. 3D facial photographs were acquired after decompensation period, preoperatively (T0) and 4 months postoperatively (T1) using a 3D stereophotogrammetry camera (3dMDface System; 3dMD LLC, Atlanta, GA, USA). Facial anthropometric measurements (11 linear, 8 angular and 4 volumetric) were performed using the 3dMD software (3dMD Vultus® software Version 2.3.0.2, 3dMD, Atlanta, GA, USA). A surface based matching procedure for the pre and post-operative 3D photographs was performed with the same software. On the matched 3D photographs a distance map was created giving an indication of the soft tissue changes.

**Results;** After 2-jaw orthognathic surgery, Class I canine relationships were achieved. Frontal midline and maxillary and mandibular dental midline was matched. The maxillary incisors-upper lip harmony was good at the rest position and smile. Postoperation soft tissue changes showed increases in facial width, mouth width, upper philtrum width, nose width, H angle, lower lip angle, nasal volume, upper lip volume and midface and upper lip volume. However, it is observed a decrease in the value of the anterior facial height, upper facial height, lower facial height, chin height, upper lip length, lower lip length, nose height, nasaofrontal angle, nasolabial angle, labiomental angle, soft tissue convexity angle, total facial convexity angle, upper lip angle and lower lip volume.

**Conclusion;** Maxillar and mandibular surgical technics are effective for the treatment of Class III, open bite patients with mandibular asymmetry. After this surgical procedure obvious changes observed lower and midface soft tissue.

**P-114****Recurrence of A Keratocystic Odontogenic Tumour in  
The Second Year Follow-up**

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**Introduction:** The keratocystic odontogenic tumour (KOT) is an epithelial developmental tumour and comprises approximately 11% of all tumours of the jaws. KOT has a high recurrence rate (%6-60) and it is constructed with a friable and very thin epithelium. It could be seen in the mandibular ramus and angle regions. It occurs in mandibula two times more than maxilla. Radiographically, the lesions generally are unilocular and %40 of them are related with an unerupted teeth. Large lesions are regularly could be multilocular. The most common treatment is the total enucleation of the lesion.

**Case:** A 29 year-old female was presented to the Department of Oral and Maxillofacial Surgery, Faculty of Dentistry, Istanbul University for evaluation of a enlarging and pain in her right cheek around mandibular first and second molar area. Her anamyses revealed breast cancer diagnosed and treated five years ago. The radiographical and clinical examination revealed unilocular, well bordered lesion which is continuing from second premolar to right third molar. The lesion was enucleated and the related teeth with the lesion were extracted in general anesthesia. The histopathological examination of the lesion was parakeratotic type of odontogenic keratocystic tumour. Three dental implants supported prosthetic restorations were made in the first year of follow-up. At the second year of follow-up, a small unicystic, radiolucent area was detected between the implants, radiographically. It was enucleated under local anesthesia and the histopathological examination revealed KOT.

**Conclusion:** Parakeratotic type of odontogenic keratocystic tumour has a high recurrence potential. Therefore it is very important to enucleate the lesion with a border of healthy area, aggressively. Definitive follow-up is mandatory.

**P-115****Rehabilitation of The Large Palatal Cleft in an Adult Patient with Rectus Abdominis Muscle Flap and Dental Implants**

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Extensive palatal defects cause substantial morbidity, including nasal regurgitation, poor oral hygiene, loose-fitting obturators, and difficulty with speech. Microvascular techniques allow the surgeon to repair these complex defects with a one-stage reconstruction, in contrast to possible multistage local or regional flap reconstruction. One adult patient operated with rectus abdominis muscle flaps for closing the wide palatal cleft. The superficial temporal artery and vein were used as the recipient vessels. There were no intraoperative complications (surgical or anesthetic). 6 months later from the operation, six dental implants were inserted to the edentulous maxilla. The objective of this case report is to describe the treatment of wide palatal cleft in an adult patient with rectus abdominis muscle flap and dental implants.

**P-116****Reconstruction of The Traumatic Mandible with Iliac Free Flap and Alveolar Distraction Osteogenesis**

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Traumatic injuries of the mandible may cause extensive defects. These traumatic defects can be treated with free flaps. But vertical deficiencies may be occurred after the rehabilitation. Alveolar distraction osteogenesis is an alternative technique for accomplishing these problems. The objective of this case report is to describe the treatment of wide traumatic mandibular defect with iliac free flap and alveolar distraction osteogenesis.



**P-117****A Dental Implant Placement to the Extractin Socket of  
Upper Impacted Canine Following Bone Grafting:  
A Case Report**

Tamer Zereener, Gürkan Raşit Bayar, Hasan Ayberk Altuğ  
*Gulhane Military Medical Academy, Department of Oral and Maxillofacial Surgery Ankara /  
TÜRKİYE*

**Objective:** If the impacted maxillary canines do not respond to orthodontic treatment, extraction could be the only solution. After that a dental implant could be placed in order to compensate lack of canine tooth.

**Case:** 38 years old male patient referred to our department for evaluation of dental implant placement after two molar teeth extraction. On the radiographic evaluation, an impacted canine tooth was observed. Then, we extraction of impacted and molar teeth at the same stage was planned. Teeth extractions and bone grafting were performed simultaneously. Four months after grafting procedure, three dental implants were placed to the right side of the maxilla.

**Results:** Healing period was uneventful and after four months he had implant supported prosthesis.

**Conclusions:** Impacted canine tooth extraction and dental implant placement can be made in the same stage. When removed bone volume is more than adequate bone volume, implant placement should be delayed. After grafting procedure, implant placement is more reliable.



**P-118****Treating of Inadequate Bone Volume by Using of Bone Expander Combined with Allogeneic Graft and Collagen Membrane in Aesthetic Zone, During Dental Implant Placement: A Case Report**

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**Objective:** The facial bone plate overlying the root of maxillary lateral is usually very thin. Such inadequate buccolingual bone volume should be increased for the successful survival of dental implant. This case report describes an implant placement in the maxillary lateral incisor region showing insufficient bone on the labial cortical plate.

**Case:** A female patient of 20 years old was referred with a missing tooth. Patient had a history of orthodontics treatment and a deciduous lateral was extracted during the treatment process. Following clinical and radiographic evaluation a dental implant supported prosthesis was planned. Midcrestal and crevicular incisions were made to elevate a mucoperiosteal flap. On the elevation of the flap, inadequate bone volume was observed on the labial plate. We prepared the osteotomy side using the surgical drills. Then we expanded the bone with bone compression appliances before placing of the dental implant. Labial bone was supported with allograft and graft membrane. At the end of the surgery, flap was closed primarily.

**Results:** Many different procedures were proposed for enhancing alveolar bone volume in order to place dental implants. These are such as grafting techniques, distraction osteogenesis, splitting method etc. Expanding the bone with bone compression appliances is another technique which yields good results for dental implant placement.

**Conclusions:** Presence of inadequate bone volume could be successfully treated by bone expansion. This technique could prevent failure of dental implants and improves prognosis.

**P-119****Dental Implant Placement into the Sandglass Shaped Alveolar Crest by Computer Aided Implant Surgery: A Case Report**

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**Objective:** Correct position and ideal angulations are very important factors to achieve successful dental implant placement. Different anatomical shapes and alveolar bone volumes can restrict the placement of dental implant in an optimal position. In this case, we planned to use computer aided implant surgery for dental implant placement into the sandglass shaped alveolar crest.

**Case:** 22 years old female patient referred to our department for evaluation of dental implant placement. After clinical and radiographical evaluations, we decided to perform flapless and computer guided surgery. Under local anesthesia, a dental implant was inserted into her sandglass shaped maxillary premolar crest by flapless and computer aided implant surgery.

**Results:** Healing period was uneventful. When we checked out the implant position by a radiography, the dental implant placed was in an appropriate position. At the end of 6 months, she had an implant supported crown.

**Conclusions:** Several hardships can be seen while the placing of dental implants, such as bone volume and/or its shape. Different implant placement options are used by surgeons in daily routine practice. Computer aided implant surgery could be used to solve these kind of problems.

**P-120****Full-arch Dental Rehabilitation by Computer Guided Flapless Implant Surgery: A Case Report**

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**Objective:** Patients' expectations have increased regarding dental implant treatment. Advanced implantology methods uses techniques that can ensure function, esthetics, and comfort with a minimally invasive surgical approach. Flapless and computer guided implant surgery has been proposed to fulfill these expectations.

**Case:** 54 years old female patient referred to our for evaluation of dental implant placement. However she had worries about post-op pain and swelling. After clinical and radiographic evaluation we decided to apply flapless and computer guided surgery in order to reduce post op complications. Under local anesthesia, flapless and computer guided surgery were applied, and 8 dental implants were placed into her maxilla.

**Results:** Post-op 24th hours appointment, patient did not show any important pain and swelling. She was looking satisfied. Healing period was uneventful. At the end of the healing period, she had implant supported full-arch fixed dentures.

**Conclusions:** Different implant placement options are used by surgeons in daily routine practice. Minimally invasive procedures may be demanded by patients to reduce their anxiety and the pain experienced, and thus to increase the treatment acceptance rate.

**P-121****Treating of Soft Tissue Complications Around Dental Implant Abutments with Lingual Vestibuloplasty Using Diode Laser: A Case Report**

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**Objective:** Significant soft tissue complications have been reported around dental implant abutments. This case report describes the treatment of increased keratinized gingiva by lingual vestibuloplasty using diode laser.

**Case:** A 48 years old female patient reported pain and swelling around one of her dental implant abutments on posterior mandibular region. In the clinical examination, hyperplasia and peri-implant mucositis were diagnosed on the lingual site of the abutment. At the lingual site of implant, there was an inadequate vestibular depth and insufficient keratinized gingiva adjacent to the endosseous implant. For establishing a wider zone of keratinized tissue, we planned to make lingual vestibuloplasty. We made an incision by diode laser on the lingual site of dental implant. The mucosa was ablated and dressing of the iodoform buffered gauze was sutured by resorable sutures to increasthe keratinized gingiva. For obtaining adequate lingual depth and avoiding to lose keratinized tissue, we applied soft tissue liner material on the lingual side of fixed prosthesis.

**Results:** After 3 weeks, we obtained a reasonable amount of keratinized gingiva on the lingual site of the abutment. The healing period was uneventful.

**Conclusions:** Inadequate lingual depth and insufficient attached tissue may ocur persistent inflammation and progressive recession. The lingual vestibuloplasty procedure prevents these kind of complications and increase the success of the dental implant treatments.

**P-122****Enhancing Inadequate Bone Volume by Bone Expander  
Prior to Dental Implant Placement: A Case Report**

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**Objective:** Bone volume could be very thin in the premolar regions of the mandible. Such inadequate bone volume threaten the prognosis and survival of dental implant. In this case report, we describe an dental implant into the left mandibular premolar region showing buccolingual insufficiency bone volume.

**Case:** A 45 years old female patient referred to our department for dental implant therapy. Following clinical and radiographic evaluations, dental implant rehabilitation was planned. We expanded the osteotomy site in buccolingual direction using the bone with bone compression kit. Then, we inserted two dental implants into the premolar region successfully and closed the flap primarily.

**Results:** Enhancing alveolar bone volume for placing of dental implants could be accomplished by bone compression kit safe.

**Conclusions:** The bone compression expanding kit enhances primer stability in type 3 and type 4 bone, prior to dental implant placement. It prevents traumatic osteotomy. It increases bone density and sensitive manual control of the osteotomy. It also reduces the risk of perforation of the bone.

**P-123****Surgical Treatment of Dentigerous Cyst Associated with  
Impacted Third Molar Tooth of the Mandible:  
A Case Report**

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**Objective:** Dentigerous cysts are the second most common odontogenic cysts after radicular cysts. They are benign odontogenic cysts that are associated with the crowns of permanent unerupted teeth; usually single in occurrence and located in the mandible.

**Case:** A 64 years old male patient was referred to our department for the evaluation of an asymptomatic, cystic lesion in the left mandible. Lesion was noticed by chance during a dental examination at another department. No extraoral swellings or sensitiveness in relation to the mandibular third molar was noted. The preop panoramic radiograph showed a well-defined radiolucent area surrounding the crown of the impacted mandibular left third molar. Under general anesthesia, cyst enucleated together with the associated third molar tooth. The total masses of excised structures were sent for histopathological examination.

**Results:** According to the histological diagnosis, the lesion was a dentigerous cyst. Healing was uneventful, the surgical sites showed good healing. He had dentures 3 months after the operation.

**Conclusions:** Dentigerous cysts are the most common type of developmental odontogenic cysts. Several treatment options have been suggested including complete enucleation and marsupialization. The size of dentigerous cysts is important in determining the type of treatment to be applied.



**P-124****Immediate Placement and Loading of a Dental Implant in Anterior Aesthetic Region of the Maxilla: A Case Report**

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**Objective:** If the aesthetic expectations is forefront for patients, immediate implantation and immediate loading can be more valid treatment plan. This treatment option not only meets with the aesthetic expectations of the patient, it also supports hard and soft tissues around the implant.

**Case:** A 29 years old female patient referred to our department in order to be pulled out her maxillary central incisor tooth. However, besides her functional expectations, she had aesthetic worries. Therefore, after radiographical and clinical examination, we planned to perform immediate placement and loading of a dental implant following the atraumatic non-surgical extraction of the tooth. After implantation, a temporary crown was fabricated and cemented onto the temporary abutment immediately. Healing period was uneventful and osseointegration of the implant was successful.

**Results:** After four months, a final crown was fabricated and cemented onto the permanent abutment. Conclusively, our patient had a reasonable esthetic outcome at the end of the immediate placement and loading procedure.

**Conclusions:** This treatment option has been widely accepted for the many benefits such as; decrease in operating time, protection of a esthetics, shortening of treatment time, maintenance of alveolar walls.

**P-125****Autogenous Bone Graft Harvested from the Retromolar Area for Anterior Maxillary Alveolar Bone Reconstruction and then Dental Implant Placement: A Case Report**

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**Objective:** Sufficient volume of bone is crucial for obtaining successful osseointegration and long term achievement of endosseous dental implants. A number of different intraoral regions have been proposed for harvesting autogenous bone graft. Retromolar area of the mandible is one of the most considered area.

**Case:** A 20 years old female patient referred to our department for evaluation of dental implant placement. She had been having orthodontic treatment for two years before his referral to our clinic. After clinical and radiographical evaluation, inadequate alveolar bone volume was seen at the left side second incisor tooth area of the maxilla. We performed retromolar onlay graft and then one endosseous dental implant was placed. At the end of the healing period, implant supported crown was made.

**Results:** No complication related to inferior alveolar nerve and neighbour teeth was observed. Healing period was uneventful and osseointegration of the implant was successful. After 9 months, the patient had his implant supported crown.

**Conclusions:** Bone harvesting from the mandibular retromolar area represents an appealing venture to get corticocancellous bone blocks for reconstruction of a insufficient alveolar ridge. Data of the local anatomy, cohesion to proper surgical techniques, and sensible use of appropriate surgical instruments are crucial to reduce operative hazards.

**P-126****Alveolar Split-Crest Osteotomy and Dental Implant Placement in Atrophic Posterior Mandible: A Case Report**

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**Objective:** A horizontal and vertical adequate bone volume is required for dental implant placement. When adequate amount of bone is not available, different techniques could be used to increase bone volume. For this purpose, alveolar ridge splitting technique could be also used to increase the width of bone by splitting and expansion of the existing residual ridge.

**Case:** A 40 years old female patient referred to our department for evaluation of dental implant placement. During the intraoral clinical exam, the absence of teeth in the posterior region of the mandible was observed. The panoramic radiograph and dental volumetric tomography showed a very narrow alveolar crest. After that, we decided to perform alveolar ridge splitting technique to expand the alveolar crest. Then two dental implants were placed on the left side of the mandible.

**Results:** Healing period was uneventfully after 6 months. Then, implant supported prosthesis were done.

**Conclusions:** Alveolar ridge splitting technique ensure the advantage of ridge expansion and simultaneous implant placement in management of narrow alveolar crest. Proper case selection and performing of the right technique are essential to achieve a successful surgical and prosthetic outcomes.

**P-127****Bone Harvesting from Mandibular Symphysis Region for  
Maxiller Anterior Alveolar Bone Reconstruction and a  
Dental Implant Placement: A Case Report**

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**Objective:** Inadequate alveolar bonevolume may require bone grafting procedures to restore an adequate bone volume for dental implant placement. Autogenous grafts such as symphysis graft have been suggested to reconstruct these types of defects prior to implant placement procedures.

**Case:** A 20 years old male patient referred to our department for evaluation of dental implant placement. He had been having orthodontic treatment for three years before his referral to our clinic. After clinical and radiographical evaluation insufficient alveolar bone volume was seen at the right second incisor tooth area of the maxilla. We applied symphysis onlay graft and then one endosseous dental implant was placed. After a healing period, an implant supported crown was made.

**Results:** No complication was seen on the healing period and osseointegration of the implant was successful. After totally 8 months, the patient had his implant supported crown.

**Conclusions:** Several augmentation procedures have been proposed to increase alveolar bone volume both vertically and horizontally to get a sufficient ridge for a correct placement of dental implants. Symphysis graft could be advisable due to less complication, and also high success and survival rate, prior to implant placement.

**P-128****Bone Harvesting from Symphysis Region for Alveolar Reconstruction and then Dental Implant Placement: A Case Report**

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**Objective:** Insertion of an endosseous implant requires sufficient bone volume for complete bone coverage. The use of bone from the mandibular symphysis could be a good treatment alternative for alveolar ridge augmentation with a high success rate.

**Case:** A 40 years old male patient referred to our department for evaluation of dental implant placement. After clinical and radiographical evaluation, we observed insufficient alveolar bone volume due to traumatic teeth extraction on the anterior side of the mandible. A symphysis onlay graft was applied and then two endosseous dental implants were placed. At the end of the recovery period, implant supported prosthesis were made.

**Results:** Healing period was uneventful and osseointegration of the implants were successful. After 7 months, the patient had his implant supported prosthesis.

**Conclusions:** The procedure of bone harvesting from mandibular symphysis region could be successful for restoration of a horizontal and vertical bone defects in the anterior mandible and maxilla. When the chin is chosen as donor site for bone harvesting, sometimes minor sensorial disturbances of mucosa and or teeth could be recorded. However, these disturbances are mostly temporary, only few of them could be permanent.

**P-129****Role of Iliac Bone Graft in Maxillary Alveolar Cleft Reconstruction; Clinical Case Series**

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Secondary alveolar bone grafting is a well established technique in the management of patients with cleft lip and alveolus. The goals of bone grafting determine the selection of grafting material such as cortical or cancellous, membranous or endochondral. In addition, vascularity, host-bed, overall physiologic status of the patient, propensity of infection and surgical expertise needs to be considered. Thus success depends on panoply of variables including the physiologic and mechanical properties of the graft material and the biology of recipient site. In this clinical case series secondary alveolar bone grafting using autogenous iliac bone graft was presented.



**P-130****Mandibular Corpus Fracture After Alveolar Distraction Osteogenesis: A Case Report**

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Mehmet Fatih Şentürk

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Distraction osteogenesis is the biologic process of new bone formation between bone segments gradually separated by incremental traction.. It is divided in: Vertical Alveolar Distraction Osteogenesis and horizontal Alveolar Distraction Osteogenesis. Vertical Alveolar Distraction Osteogenesis is recommended whenever the ratio of required crown height to bone height available for implantation is greater than one. Alveolar Distraction Osteogenesis procedure has advantages for new bone formation however in some cases occur complications. This case report presents a mandibular corpus fracture observed as a complication after alveolar distraction osteogenesis

**P-131****Large Dentigerous Cyst in Pediatric Patient:  
A Case Report**

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Dentigerous cyst are benign odontogenic cyst that are associated with the crowns of permanent teeth. Dentigerous cysts are usually asymptomatic and they may be detected incidentally via routine radiographic examination or when they are large enough to cause facial asymmetry. This report describes a case of a 9 year old girl with a large dentigerous cyst. The treatment consisted of extraction of the involved deciduous teeth and marsupialization of the cyst. Permanent teeth began to erupt spontaneously within one year period.

**P-133****Oral Neurothekeoma: An Unusual Case**

Mehmet Fatih Şentürk

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Nerve sheath myxoma (NSM), an unusual benign soft tissue tumor of the peripheral nervous system, often occurs on the head, neck, and upper extremity but rarely found in the oral cavity. This tumor, initially described as a benign cutaneous lesion showing neural growing pattern, was initially reported as NSM and later reported as neurothekeoma and cellular neurothekeoma. Histopathologically, 3 distinct variants were observed based on the amount of myxoid matrix: classic/hypocellular, cellular, and mixed types. This report presents a 55 year old female patient with gingivally located oral neurothekeoma in a mixoid characteristics histopathologically which seen rarely. Postoperative 1 year course was uneventfull.

**P-134****Large Dentigerous Cyst Associated with An Ectopic Impacted Third Molar in The Maxillary Sinus:  
A Case Report**

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Dentigerous cysts are the most commonly odontogenic cysts after radicular cyst and accounts for 15% of all true cysts in the jaws. The cyst is more common in mandible than in maxilla. The dentigerous cyst is commonly associated with impacted mandibular third molars. We present a case report of a 14 year old girl who had large dentigerous cyst associated with an ectopic impacted third molar in the maxillary sinus. Patient referred to otorhinolaryngology clinic with a complaint of oral supuration. A large lesion that fills the left maxillary sinus and ectopic 3rd molar that is on roof of sinus were seen in computed tomography. Under general anesthesia cyst was enucleated from the window that was opened lateral wall of the maxillary sinus. 3rd molar was extracted with help of endoscopy. Flap was sutured primarily and patient was discharged. There is no any problem on postoperative controls. Histopathological examination showed that the lesion was composed of a fibrous cystic wall covered with nonkeratinized squamous epithelium and reported to be dentigerous cyst.

**P-135****Surgical Treatment of Epulis Fissuratum: A Case Report**

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Epulis fissuratum is an oral pathologic condition that appears in the mouth as an overgrowth of fibrous connective tissue. Also referred to less commonly as Inflammatory Fibrous Hyperplasia, Inflammatory Fibrous Dysplasia, Denture Granuloma, Denture epulis, Redundant tissue and Denture induced fibrous hyperplasia, it is associated with the edges of a denture that does not fit well. Consequently, epulis fissuratum is usually observed in the maxillary or mandibular vestibule. The surface of the epulis fissuratum mass tends to be smooth; however, occasionally, it is ulcerated (most often within the depth of the groove) or papillary. Some lesions have a more pyogenic granuloma-like appearance because of capillary proliferation. Chronic trauma to the oral mucosa is considered a risk factor for the development of oral carcinoma. Typically, patients with epulis fissuratum are asymptomatic. Treatment can be either conservative or surgical, giving preference to surgical excision with a subsequent auto-transplantation of mucous membrane from hard palate.

A 39-year-old female patient was referred to our clinic for her new total denture. Clinical examination revealed epulis fissuratum lesions associated with a 15-year total denture. The lesion which is 3x3 cm in diameter was excised including the border of lesion with scalpel. Because of the risk of hemorrhage, the treatment is completed with 3 appointments.



## P-136

**A Modified Approach for the Absence of Keratinized Mucosa Around Dental Implants: a Case Report**

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**Objective:** Severely resorbed mandibles often present a short band of keratinized tissue associated with a shallow vestibule. As a result, prominent muscle insertions are present, especially in the mental region of the mandible. This case report describes the deepening of the vestibular sulcus in an atrophic mandible by combining free gingival grafts harvested from the palate and a postoperative acrylic resin stent screwed on osseointegrated implants placed at the anterior region of the mandible.

**Methods:** A 68-year old patient who had two implants at the anterior region of the mandible. At the clinical examination after 3 months implant surgery, a swelling of the peri-implant soft tissues, non-keratinized mucosa around implants and shallow vestibule was observed. A significant strain of the mental muscle existed on implant area. During the second-stage surgery, a split-thickness flap was reflected and apically sutured onto the periosteum. Two free gingival grafts were obtained and then sutured at this recipient site. A previously custom-made acrylic stent was screwed between implants to decrease the pull of mentalis muscle and provide stable soft tissue around implants. The technique provided an increase in keratinized tissue and prevented muscle reinsertion during the following period.

**Results:** The proposed technique augmented the band of attached keratinized mucosa, deepened the vestibule and prevented the muscle reinsertion.

**Conclusions:** The technique, in combination with palatal mucosal graft and use of a postoperative stent, decreased the pull of mentalis muscle and provided a peri-implantally stable soft tissue around implants.



**P-137****Huge Radicular Cyst Leads to Blurred Vision**Yavuz Fındık, Mehmet Fatih Şentürk*Oral and Maxillofacial Surgery, Dentistry Faculty, Suleyman Demirel University, Isparta, Turkey*

Radicular cysts are the most common cysts of the oral cavity which are generally develop in the root apex of an erupted tooth that is devitalized caused by a dental caries or trauma. Well-defined periapical radiolucency is the radiographic characteristics of them. They are most commonly observed in the maxillary anterior region, among men and in the third decade of life. They are generally asymptomatic unless they reached bigger sizes and are uninfected. When a cyst reaches a larger size, intraoral or facial asymmetry and vision problems may occur. We presented 52 year old female patient with radicular cyst which have reached floor of the orbital cavity and have perforated lateral wall of the nasal cavity. Blurred vision and facial asymmetry were disappeared after enucleation of the cyst.

**P-138****Enucleation of The Huge Ameloblastoma**

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Ameloblastoma is a benign odontogenic tumour, which often shows aggressive growth and a high recurrence rate after conservative surgical treatment. Ameloblastoma represents 1 % of maxillary and mandibular tumors and 11 % of odontogenic tumors. The age is most often between 20-50 years of age. There is no difference in prevalence between men and women. Although considered as a benign tumor, its clinical behavior can be considered of mixed nature, between benign and malignant. This report presents a 22 year old male patient with huge, unicystic ameloblastoma treated enucleation and curettage. Postoperatively there were not seen any problems in the patient whose follow up recurrence is going on radiologically and clinically. Conservative treatment of unicystic ameloblastoma enucleation and curettage is a preferential method compared with segmental resection.

**P-139****Treatment And Two Year Follow Up of A Large Radicular Cyst: A Case Report**

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**Introduction:** Radicular cysts are the most common jaw cysts, comprising half to two thirds of all such lesions. These cysts usually arise following the development of periapical granuloma from the necrotic remnants of the dental pulp. Treatment is managed either by decompression, surgical enucleation or by marsupialization.

**Case:** 66-years old male patient was admitted to our clinic, with complaints of swelling and pain in the right mandibular posterior region. After the clinical and radiographic examination, a large lesion was found between 41 and 48. teeth. As a result of biopsy, it was found to be a radicular cyst. Decompression was made for 6 months. After that the cyst was enucleated. Satisfactory bone healing was achieved in the area after two years follow up.

**Conclusion:** The treatment options for radicular cysts include root canal treatment, decompression, total cyst enucleation and marsupialization. In this case, we managed the cyst succesfully by performing decompression, followed by enucleation of the cyst without damaging vital structures.

**P-140****Treatment of a Mandibular Fracture with Acrylic Splint in an 19 month-old boy: A Case Report**

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Background: Mandibular fractures in infants are uncommon. According to WHO the lifetime between birth to 2 years old is defined as infancy. Mandibular fracture in infancy is a rare condition. In terms of treatment, pediatric mandibular fractures are treated with a wide variety of fixation methods. Closed reduction with splints fixed with circummandibular wires is the commonly recommended treatment.

Case: This case report describes the management of parasymphysial fracture of the mandible in an 19-month-old boy. The fracture was reduced under general anesthesia and then stabilized with an acrylic splint, utilizing circummandibular wiring.

**P-141****Clinical and Radiographical Evaluation of Horizontal Ridge Augmentation with a Resorbable Membrane**

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**Objective:** To evaluate clinically and radiographically the results of guided bone regeneration with demineralized bovine bone (DBB) and particulated autogenous bone.

**Methods:** Particulated autogenous bone in combination with DBB as a composite was applied for lateral ridge augmentation and covered with resorbable membrane in two-stage approach to treat deficient ridges in maxilla and mandible. Volumetric change of grafted site were measured three-dimensionally using cone beam computed tomography before operation, after 3 weeks and before implant placement (healing periods were 6 to 7 months). During implant placement, grafted sites were assessed for the necessity of contour grafting. Implant survival was also recorded during two years follow-up.

**Results:** Seventeen implants were placed in 9 patients with 12 grafted sites. Only one early membrane exposure was observed as a complication. Clinically, all grafted sites were sufficient for implant stability except two-sites were needed to be re-grafted during implant placement. No implants were lost during twenty months follow-up.

**Conclusions:** Horizontal augmentation with resorbable membranes and composite grafts is predictable and reliable technique for implant placement. However, clinicians should take precautions with regard to contour augmentation necessity during second stage surgery.

**P-142****Application of PRF on A Patient with BRONJ, Treatment Modality and Follow Up: A Case Report**

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Bisphosphonates (BP) are drugs used to treat various metabolic and malignant bone diseases. BP related osteonecrosis of the jaw (BRONJ) is an adverse drug reaction consisting of progressive bone destruction in the maxillofacial region of patients under current or previous treatment with BP. This case report presents to evaluate the benefits of PRF in breast and lung CA patient who developed BRONJ after using iv BP for 2 years.



**P-143****The Le Fort I Osteotomy Approach for Removal of Large Odontoma: a Case Report**

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Odontoma is the most common benign tumor of odontogenic origin and treatment is usually complete surgical removal. Depending on the size and location of the odontoma, surgical removal may cause large bony defects which is difficult to reconstruct. In the presence of large lesions in the maxilla, a Le Fort 1 osteotomy approach can be useful to provide excellent visibility and prevent large bony defects. We report a case in which an odontoma in the right maxillary sinus was treated with this technique. A 17-year old female referred to our clinic for dental treatment. Radiographic evaluation revealed a large well-demarcated radiopaque mass in the right maxillary sinus measuring 2,7 x 2,7 x 2,2 cm and a comparatively very small one in the left maxilla. It was initially diagnosed as odontoma considering its clinic and radiographic features. It was decided to remove the odontoma surgically under general anesthesia. Le Fort 1 osteotomy was performed, the tumor was exposed by down-fracture of maxilla and completely removed. A small bony defect which was caused by removal of posterior portion of the tumor was reconstructed with buccal fat pad. Than maxilla was fixed in its initial position with three titanium miniplates which were adapted before the osteotomy. Postoperative healing was uneventful. The histopathologic examination confirmed the diagnosis of a complex odontoma. Patient was followed up for 9 months and no clinical and radiological sign of recurrence or any other complications was observed. As the Le Fort I osteotomy is a frequently used procedure in oral and maxillofacial surgery for correction of maxillofacial deformities, it can also be used for removal of maxillary tumors. This approach allows direct visualization of the maxillary tumors and ensures complete excision, minimizing the possibility of damage to surrounding tissue and preventing large defects.

**P-144****Alveolar Distraction Osteogenesis for Dental Implant Rehabilitation of A Trauma Patient: A Case Report**

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Alveolar distraction osteogenesis (ADO), a novel bone augmentation technique, is gaining acceptance in restoring the vertical bone discrepancy. ADO can be applied as a first choice solution to restore large vertical mandibular defects due to trauma to guarantee the possibility of performing correct implant-supported rehabilitation.

The 17 year old male has applied to our clinic after motorcycle accident with a complaint of tooth luxation and lacerations. The treatment consisted of extraction of residual roots and surgical debridement. After wound healing the bone defects detected resulting from trauma and have remained challenging to surgically and protetic reconstruction. According to the clinical and radiographic evaluation of the patient, mandibular vertical deficiencies was inspected. Alveolar distaction osteogenesis was performed under general anesthesia. After the latency period, the distraction period was started at a distraction rate of 1 mm per day. At the end of the distraction period, 12 mm of bone increase was obtained after 12 days. Distractor was removed after 3 months consolidation of the distracted segment. 3 dental implants were placed in the distracted areas. 3 months later, abutments were connected and prosthetic loading of the implants began. The patient was successfully rehabilitated by means of an implant-supported prosthesis.

A primary advantage of distraction osteogenesis is that there is no need for additional surgery at the donor site. Another benefit is the coordinated lengthening of the bone and and associated soft tissues.

**P-145****Diagnosis and Surgical Management of Hereditary  
Gingival Fibromatosis (Elephantiasis Gingivae):  
A Case Report**

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**Objective:** Hereditary gingival fibromatosis (HGF) also known as elephantiasis gingivae is a rare condition characterized by various degree of gingival overgrowth. HGF is usually seen as an isolated disorder but can also manifest with multisystem syndrome. It has an autosomal dominant or recessive mode of inheritance. Treatment of HGF is surgical excision of gingival tissue. If it is left untreated pathological migration could occur in time, in addition to abnormal jaw development, and various functional and esthetic problems. In this paper, a patient with HGF of the mandible is reported.

**Methods:** A 30-year-old male patient was referred to the department of oral and maxillofacial surgery with a chief complaint of disfigurement of face due to the enlarged gums since one year, which was causing functional and masticatory difficulty. He presented with a generalized severe gingival overgrowth, involving the maxillary and mandibular arches and covering almost the entire dentition. The patient was not receiving any medications that could contribute to the gingival enlargement. Intraoral examination revealed enlargement of the gingiva on buccal side with fibrous inconsistency. Diagnosis was made based upon clinical and radiographic examination.

**Results:** Gingivectomy in association with gingivoplasty was performed under local anesthesia to fulfill the functional and esthetic needs. Complete healing of the normal gingival tissue was achieved and no complication was reported.

**Conclusion:** The postoperative period was uneventful. The patient was followed up for eight months with no evidence of recurrence.

**P-146****Isolated Zygomatic Arch Fracture: A Case Report**

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Radiology

**Objective:** Zygomatic bone is situated at the lateral part of the facial triangle, and is frequently exposed to maxillofacial traumas, since it forms the most prominent region of the facial skeleton. Isolated zygomatic arch fractures comprise 5% of all facial fractures and 10% of zygomatic bone fractures. In this case report, the clinical and radiological characteristics, and the treatment options of isolated zygomatic arch fractures have been discussed.

**Case:** The traumatic zygomatic arch fracture of the left zygomatic arch region of a 35-year-old male patient and its treatment have been reported in this case report.

**Conclusion:** The Gillies method should be considered as an effective treatment method in isolated zygomatic arch fracture cases due to its feasibility and esthetic properties.

**P-147****Prevention of Secondary Space Involment of Dental Infection with Immediate Intervention at Cellilutis Phase: A Case Report**

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Cellulitis is a spreading inflammatory reaction of tissue due to infection.

It follows bacterial invasion and is more pronounced than simple inflammation of a part. It arises and may spread rapidly, with an increase in the tension of the tissues involved, and displays a more severe manifestation of the cardinal signs of inflammation.

It terminates by resolution or suppuration. A common cause of cellulitis about the face and jaws is infected teeth.

This case report describes a patient who admitted to our clinics with complaints of pain upon chewing and extra-oral swelling in the mandible. In radiologic examination pus formation seen in both buccal and parapharyngeal spaces.

Immediately patient hospitalized and treated with IV antibiotics.

Also immediate drainage was administered to control the spread of infection to the secondary spaces and comparison of trachea.

**P-148****Resection of a Huge Fibroosseous Lesion: A Case Report**

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Fibro-osseous lesions (FOL) are a poorly defined group of lesions affecting the jaws and craniofacial bones. All are characterized by the replacement of bone by cellular fibrous tissue containing foci of mineralization that vary in amount and appearance. Diagnosis of these lesions based on histological appearance alone has considerable limitations. So proper categorization requires good correlation of the history, clinical findings, radiographic characteristics, operative findings, and histological appearance.

Here we report a 20-year-old woman with large fibro-osseous lesion measuring 7x5x4 cm which was located in the premolar and molar region of mandibula who treated via submandibular approach as the inferior alveolar nerve was protected carefully. Mandibular resection was performed under general anesthesia and reconstruction plate was placed. Postoperative healing was uneventful. Patient was followed up monthly and lower lip paresthesia still remains for 6 months.

As aggressive behavior and recurrence is a frequent finding in few patients with FOL, clinicians must be aware of radiologic and clinical findings to detect the lesions as early as possible. Despite small lesions can be treated with conservative surgical procedures, in larger lesions, reconstruction after resection may be necessary as in our case.



**P-149****An Unusual Complication of Transport Distraction Osteogenesis in Alveolar Cleft Patient**

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**Objective:** The aim of this study is to present an unusual complication of distraction of dentoalveolar segment using intraoral tooth-borne distraction device to repair alveolar cleft.

**Case:** A patient with alveolar cleft was referred to Hacettepe University, Department of Oral and Maxillofacial Surgery with a complaint of missing lateral incisor tooth at the site of cleft alveolus. He has been received an orthodontic treatment for 2 years and planned transport distraction osteogenesis to repair alveolar cleft with a tooth-borne distractor in a different center. The orthodontist prepared a custom made tooth-borne distractor using a hyrax screw and orthodontic bands. At the operation, horizontal and vertical osteotomy lines were outlined monocortically with a small bur and the osteotomy was completed by fine osteotomes. However, the left second premolar root was fractured during the vertical osteotomy in the interdental region. The left second premolar had to be removed. Following the distraction of the dento-osseous segment, docking site surgery was performed. Two dental implants were placed at the posterior edentulous area after the orthodontic treatment was finished.

**Results:** The interdental region between first and second premolar teeth was insufficient to perform the vertical osteotomy completely so the second premolar root was fractured during the osteotomy and had to be removed. Therefore, it was mandatory to place one more implant at the edentulous posterior area.

**Conclusion:** The authors emphasize that all orthodontic arrangements are completed before the surgery, orthodontist and surgeon should stay in close communication with each others and attentive surgery should be performed by an experienced surgeon.

**P-150****Spontaneous Fracture of Titanium Mandibular  
Reconstruction Plates After Hemimandibular Resection:  
Two Case Reports**

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Use of reconstruction plate after tumor resections in the mandible is an accepted technique to prevent the collapse of soft tissues, to obtain a functional occlusion and stabilize segments of the mandible. The plates are still widely used in mandibular defects although they may promote infection, extrude and even fracture. The most common complications are extraoral or intraoral exposure, loosening of the osteosynthesis screws and fractures of the reconstruction plate.

We reported spontaneously fractures of reconstruction plates were placed in two patients following hemimandibular resection. Patient 1 referred to our clinic with lack of mastication after right segmental mandibulectomy because of chondrosarcoma. Reconstruction plate was placed in general anesthesia via extraoral approach. One year later, patient referred to us again with pain, swelling and deviation to right side. After clinical and radiological examinations, it was revealed that the plate was broken but there was no discontinuity of the mandibular segments. It was decided to follow the patient because the masticatory function was adequate. Patient 2 had a left mandible resection after ameloblastoma diagnosis. Reconstruction plates were placed in general anesthesia. One year later, patient referred to us with pain, facial swelling and malocclusion. It was observed that reconstruction plate was broken and there was a discontinuity of the mandibular segments. Broken plate was replaced with new one in a second operation and the mandibular continuity and occlusion was gained again.

According to the literature, the fracture of reconstruction plate spontaneously is multifactorial

These are overloads produced in chewing, cumulative stresses occurring while bending of the plate, complex anatomy of human mandible. We report spontaneous fracture of reconstruction plates in two cases and its management.

**P-151****Gap Arthroplasty with Autogenous Fat Graft**

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*Baskent University*

Temporomandibular joint (TMJ) ankylosis involves the fusion of the mandibular condyle to the glenoid fossa the skull base. Various types (fibrous, fibroosseous and bony) of TMJ ankylosis were diagnosed. Temporomandibular joint (TMJ) ankylosis can be accompanied by various degrees of functional, pain, trismus, and a poor quality of life. Surgical treatment of TMJ ankylosis with gap arthroplasty, and fat grafting is an effective and easily procedure for preventing of re-ankylosis. This report describes a case of a 12-year-old girl with inability to open her mouth, diagnosed with unilateral left bony TMJ ankylosis. The surgical approach consisted of gap arthroplasty performed by extraoral and autogenous fat graft was then obtained from the abdomen and used as interpositional material. The average mouth opening before surgery was 7.6mm and the average mouth opening achieved postsurgery was 28 mm.

**P-152****Open Reduction and Rigid Internal Fixation of Bilateral Mandible Fractures: A Case Report**

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26-year-old male patient was admitted to our clinic because of having a traffic accident. In clinical examination severe pain, abrasion and hematoma on his face, mobility of jaw fragment, malocclusion and anterior open bite were detected. In Panoramic and Computed Tomography, there were fractures on right mandible parasymphysis area and left angle of mandible. Mesial root of left lower third molar was broken, crown of the tooth was dislocated posteriorly. Also, a non-displaced fracture line was observed on his left zygomatic bone. In general anesthesia, fractured jaw fragments were allowed to be in the proper position with open reduction and intermaxillar fixation and fixed with mini plates and screws bilaterally. The broken tooth was extracted.

**P-153****Is Inflammation Liquid Aspiration A Reliable Sign for Differential Diagnosis of Odontogenic Pathologies**

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Ameloblastoma is a benign odontogenic tumour, which often shows aggressive growth and a high recurrence rate after conservative surgical treatment. Unicystic ameloblastoma is considered to be a less aggressive form of ameloblastoma and treatment by conservative surgical methods is thought to be adequate for the majority of cases. In the present case report; a 20-year-old man referred to our clinic with complaint of pain and swelling in his left mandibula ramus region. Radiographic examination revealed a multilocular radiolucency in this region. The lesion was enucleated totally. And histologic examination diagnosed as unicystic ameloblastoma. After 1 year from surgery, almost complete healing was obtained clinically and radiographically. No recurrence hasn't seen yet. Follow-ups are going on.

**P-154****Pindborg Tumor: A Case Report**

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**Introduction:** The calcifying epithelial odontogenic tumor (CEOT) was first introduced into scientific literature in 1955 by Dr. J J Pindborg. World Health Organization in 1992 classified it as a benign odontogenic tumor, which is exclusively epithelial in its tissue of origin. The CEOT or Pindborg tumor is a rare and benign but locally aggressive odontogenic neoplasm that affects the jaw. The etiology is unknown and no predisposing factors have been identified.

**Case Report:** A 28 year old man referred to our hospital with a chief complaint of a swelling in the left side of the mandible in the region of 31, 36. Extraorally there was a diffuse swelling on the left side of the face with associated facial asymmetry. The patient had undergone excisional biopsy from the lesion with the extraction of the first molar, canine and unerupted premolar tooth and under general anesthesia. Histological examination of the biopsy specimen indicated Pindborg Tumor. In our case there is no evidence of recurrence at 3 months follow-up examination.

**Discussion:** CEOT is uncommon neoplasm and comprises less than 1% of all odontogenic tumors. The tumor occurs over a wide range of age the youngest being reported as 1year and the oldest as 82 years. There is no sex and race predilection. The radiographic features of the tumor may be unilocular or multilocular, approximately 50% of the cases are associated with an unerupted tooth or odontoma. The differential diagnosis for CEOT should include adenomatoid odontogenic tumor (AOT), calcifying odontogenic cyst (COC), ameloblastic fibro odontoma (AFO), odontoma and a variant of simple ameloblastoma.



**P-155****Peripheral Ossifying Fibroma: A Case Report**

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**Objective:** In oral cavity, there are common types of localized reactive lesions reported on the gingiva including pyogenic granuloma, peripheral giant cell granuloma, epulis gravidarum and peripheral ossifying fibroma (POF). POF contains mineralized tissues like bone, cementum-like material or focal calcification. Most lesions are less than 2 cm in size, rarely some lesions get bigger and cause superficial erosion of underlying bone.

**Methods:** 50-year-old male patient referred to our clinic because of slow-growing painless gingival mass for 5 years in his mouth. In extraoral examination, facial asymmetry was observed because of intraoral mass. In intraoral examination, there were pedunculated, reddish and ulcerated huge gingival mass consisted of 2 lobes and luxated teeth nearby the mass. Poor oral hygiene (periodontal problems and teeth decays) was observed. In panoramic and CT examination, calcifications and erosion on underlying bone were observed.

**Results:** An incisional biopsy was performed and tissue was submitted to oral pathology department for histopathological examination. According to pathology report, it was thought POF. The treatment plan was surgical excision and extracting the affected teeth in general anesthesia. In case of recurrence, superficial bone and periosteum were curetted.

**Conclusion:** POF is one of the most common reactive lesions of gingiva. Etiologic factors must be eliminated and an incisional biopsy must be performed. The main treatment option is surgical excision and curettage; and patient follow up is important for recurrence possibility.

**P-156****Peri-implantitis Management with Trephine Drill and Concentrated Growth Factor (CGF): A Case Report**

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**Objective:** Peri-implantitis is characterized as an inflammatory reaction that affects the hard and soft tissue. Signs of this disease are loss of supporting bone and pocket formation surrounding the functioning osseointegrated implant. The non-surgical approach involves the mechanical surface debridement using carbon or titanium curettes, laser therapy, and antibiotics. Surgical approach involves flattening rough implant surface, elevation of mucoperiosteal flap and removal of peri-inflammatory granulation tissue followed by surface decontamination and bone grafting.

**Methods:** In this case report, 65-year-old male patient applied to our clinic for routine dental visit. About 1 year ago, he had implant surgery and implant supported mandibular overdenture was rehabilitated. In clinical and radiographic examination, exposure of implant surface, dental plaque accumulation, inflamed gingiva and bone loss around the implants were detected on both implants. In local anesthesia, mucoperiosteal flap was elevated, horizontal bone loss was observed significantly around the both implants. Inflammatory tissue was curetted. Trephine drill that has bigger diameter than inserted implants was used around the both implants. Implant and surrounding solid bone were released from the mandible. Then, remained bone cavities were deepened with round drills, in case of the implants and adjacent solid bone could place deeper and be embedded. Implants and surrounding bone blocks were embedded and remained in the prepared cavities firmly. So, horizontal bone loss around the implants were eliminated and only expose areas were buccal surface of the implants. Then, bone grafting with CGF and collagen membrane was performed and wound closure was achieved.

**Results:** Soft and hard tissue healing occurred uncomplicated.

**Conclusions:** Peri-implantitis management using trephine drills is a new approach comparatively. Especially, if there is bone loss around all 4 sides of implant, this technique is really available and effective. Vertical height of maxilla or mandible alveolar ridge must be considered before using this technique.

**P-157****Segmental Le Fort I Osteotomy For Closing Wide Alveolar Cleft**

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Depending on the clinical situation such as vertical deficiencies, linear transport of the segment does not always ensure a proper closure of the cleft space. Rehabilitation of the large alveolar clefts with segmental Le Fort I osteotomy is one of treatment choices. Segmental Le Fort I surgery in patients with a cleft palate can be challenging even with excellent presurgical orthodontic planning. Closing the alveolar wide cleft fistula in patients who have not had alveolar bone grafting previously requires good soft tissue margins with gingival excess on one or both sides of the alveolar cleft. In this report, the authors present a patient in whom large unilateral cleft and alveolar deficiency were closed by unilateral segmental Le Fort I osteotomy. We conclude that segmental Le Fort 1 osteotomy is an effective method of closure of large unilateral alveolar cleft.

**P-158****Odontogenic Fibroma Located within a Traumatic Bone Cyst**

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**Introduction:** Traumatic bone cysts are benign lesions without any epithelial border. They are usually seen in long bones of the body but rarely may be seen in the jaws. Odontogenic fibromas are benign neoplastic lesions with periodontal ligament origin.

**Material / Method:** Routine radiographic examination of a 17-year-old female patient showed a radiolucency in relation to impacted tooth no: 38 and within this lesion, a second radiolucency at the apical portion of nonvital tooth no: 36 was seen.

**Result:** Larger lesion which resembled a dentigerous cyst was diagnosed as traumatic bone cyst and the second smaller lesion as odontogenic fibroma.

**Conclusion:** Radiographically, traumatic bone cysts may resemble many other lesions of the jaws and correlating results of radiological, clinical and pathological symptoms are necessary for a final diagnosis. Moreover, this is the first case in literature where a centrally located odontogenic fibroma is located within a traumatic bone cyst.



## P-159

**Malign GIST Tumor of Esophagus Metastases in the Hard Palate; a Case Report**Ertan Yalçın<sup>1</sup>, Ümit Ertaş<sup>1</sup>, Muhammet Çalık<sup>2</sup><sup>1</sup>Atatürk University, Dentistry faculty, Oral and Maxillofacial Surgery  
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Metastases in the oral regions, including soft tissues and jaw bones, account for only 1%- 8% of all oral malignancies. Bone metastases are the second most frequent malignant bone tumors after osteosarcomas. In 22% to 30% of cases, an oral presentation of metastasis is the first sign of the malignant disease. The maxilla is affected far less frequently than the mandible. The breast is the most common source for tumour metastasising to the jaw bones, whereas the lung is for oral soft tissues. A 61 years old man complaining about swelling in right hard palate. Lesion had an ulcerative appearance and painless. Medical history revealed the patient treated 7 years ago for gastrointestinal stromal tumor (GIST) which primary origin was esophagus. An incisional biopsy was confirmed that the lesion was a distant metastasis of previously diagnosed GIST. PET/CT scan showed multiple metastasis include in the hard palate. Patient was treated by medical oncology department with GLIVEC (imatinib) for multiple metastasis and after the treatment oral lesion diminished. GIST's are mesenchymal tumours of the gastrointestinal tract. They may arise throughout the stomach and small intestine. Malignant GISTs were once viewed as one of the most treatment-refractory tumours, with very few patients showing clinical response to conventional therapy. Targeted therapy (imatinib) may induce shrinkage of lesions and cystic change. the disseminated tumor cells from gastrointestinal, genitourinary, and respiratory system can bypass the pulmonary venous system and settle in the associated structures of the maxillofacial complex via Batson's plexus.



## P-160

**Spontaneous Healing of Bilateral Brown Tumors in Mandible Via Treatment of Endocrine Disorder**

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The giant cell lesions associated with hyperparathyroidism are referred to as brown tumors. The diagnosis of brown tumor can be made through the use of biochemical tests such as serum calcium, alkaline phosphatase, phosphorus, sodium, potassium and parathyroid hormone levels in the presence of giant cell lesions. After the endocrine treatment these lesions can regress spontaneously. 24-year old man was referred to our department with bilateral swelling and spontaneous gingival bleeding from posterior of mandible. Intraoral examination revealed pericoronitis and spontaneous bleeding from periodontal pocket of right mandibular third molar, swelling in the bilateral retromolar regions. In radiographic examination, radiolucent well-demarcated lesions bilaterally in the mandibular third molar regions, measuring 4\*3\*3 cm on the right and 2,5\*1,5\*1,5 cm on the left, were observed. Brown tumor was suspected from his family history of endocrine disorder and biochemical tests demonstrated high level of serum calcium, alkaline phosphatase, parathyroid hormone. After consulting to endocrinology department, patient was hospitalized in the endocrinology clinic and further test were performed. After 2 months of endocrine therapy, bilateral regression of the lesions occurred spontaneously. In radiographic examination complete calcification of the lesions were observed after 6 months. There was no evidence of recurrence at 2 years. We report unusual case of brown tumor in the mandible that completely recovered after endocrine therapy. Because it is difficult to distinguish brown tumor from other giant cell lesions histopathologically, a clinical decision should be made with considering underlying systemic event. Surgical excision of brown tumor is not always necessary if the endocrine disorder is treated properly.





## P-161

**Diverse Effects of Three Selective Serotonin Reuptake Inhibitors on Bruxism in A Depressive Patient Treated with Botox Therapy: A Case Report**

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The potential role of selective serotonin reuptake inhibitors (SSRI) in sleep bruxism (SB) remains controversial due to a lack of well-designed, controlled studies. Although some case reports demonstrated that different types of SSRIs seemed to initiate or aggravate SB, two recent reports provided conflicting evidence. This case report describes a patient with SB who received different types of SSRIs and other treatment modalities for anxiety and depression. According to the patient's history, long-term use of the SSRIs citalopram (5 years) and fluoxetine (1.5 years) did not aggravate mild bruxism symptoms, in contrast to the literature. The patient's psychiatrist changed these SSRIs to sertraline because the other antidepressants were ineffective. Two weeks later, the patient experienced intolerable oro-facial pain related to severe bruxism. Buspirone was prescribed for 45 days to reduce the bruxism-related symptoms. Contrary to published case reports, this did not reduce the frequency of the bruxism or the related symptoms. The patient was then referred to our clinic. A splint, hot pack, and myorelaxant therapy did not improve the patient's symptoms. Thus, botox therapy was applied, with a successful outcome. In conclusion, as the pharmacokinetic profiles of SSRIs differ, they may exert different effects on SB. Buspirone does not seem to be effective in treating SSRI-related SB, whereas botox treatment was successfully used. Further studies are needed to shed light on the role of SSRI-related SB.

**P-162****The Effects of Temporomandibular Joint Osteoarthritis (TMJ-OA) on Dental and Skeletal Asymmetries**

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**Objective:** This study was aimed to investigate whether dental or skeletal asymmetry exists in patients having TMJ-OA.

**Methods:** The study sample included 61 adult subjects having TMJ-OA aged between 18-59 years old. Dental and skeletal asymmetry values were computed on posteroanterior radiographs for all subjects: Upper and lower dental midline deviation (dental midline discrepancy), menton deviation, occlusal plane tilt, frontal convexity (right and left sides), jugular process distance relative to midsagittal reference line (right and left sides), antegonial notch distance relative to midsagittal reference line (right and left sides), antegonial notch-menton distance (right and left sides). Data was analyzed by means of paired t test.

**Results:** Mean dental midline discrepancy, menton deviation, and occlusal plane tilt is ranged from 0 to 1 mm. Frontal convexity and antegonial notch-menton distance measurements showed statistically significant difference between two sides. No significant difference was observed in the other parameters measured bilaterally.

**Conclusion:** The results of this study indicated that the subjects who had TMJ-OA could have skeletal asymmetries.

**P-163****Ossifying Fibromas: Case Series**

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**Introduction:** Ossifying fibroma is a rare benign fibro-osseous lesion with high recurrence. Ossifying fibromas are asymptomatic neoplasms of the maxillae that generally have slow growth and present proliferation of fibrous cell tissue. Ossifying fibroma, predominantly seen in females in 2nd–4th decade of life. Upon radiographic examination, it is observed that the edges of the lesion are usually well defined, with a thin radiolucent line. The internal structure shows mixed radiolucent–radiopaque density. The well-delimited clinical–radiographic appearance of ossifying fibroma and the ease with which it can be separated from normal bone is the main differential in relation to fibrous dysplasia. 60 cases of ossifying fibroma are reported until now. This presentation will include 5 cases of this rare entity.

**Material method:** 5 patients who attended Akdeniz University Faculty of Dentistry regarding their dental treatments were identified with lesions in various parts of their jaws during routine radiographic examination and were referred to our department. All patients were treated with surgical excision with access to the lesions via full thickness mucoperiosteal flap. Healthy bone margins were curetted after surgical excision of the lesions. Histopathological examinations confirmed our pre-diagnosis of ossifying fibroma. Patients are at least at their first year of follow ups, with normal osseous trabeculation at the surgery sites without any residues.

**Conclusion:** Ossifying fibroma is a rare lesion of the jaws. Early detection and complete surgical excision is essential to aid in better prognosis.

**P-164****Clinical Efficiency of Dextrose Prolotherapy Treatment in Subjects with Temporomandibular Joint Hypermobility and Osteoarthritic Joints**

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**Objective:** This study examined long-term clinical efficiency of dextrose prolotherapy injections in patients with temporomandibular joint (TMJ) hypermobility and osteoarthritic joints.

**Methods:** This study was carried out on 14 joints of 11 adult patients ( $35.09 \pm 13.98$  years) having TMJ hypermobility and osteoarthritis, diagnosed according to Research Diagnostic Criteria for Temporomandibular Disorders (RDC/TMD Grup IIIb guidelines). Dextrose injections were injected monthly into posterior disk attachment, superior joint space, superior and posterior capsular attachment and stylomandibular ligament in three sessions. The outcome variables were visual analogue scale (VAS) evaluations and maximal interincisal opening (MIO) measurements. Clinical examinations were conducted at baseline, immediately after last injection, and 12 months after last injection.

**Results:** Joint sound, MIO and pain complaints were decreased significant statistically after the last injection. MIO returned to baseline value during 12 months after last injection. Masticatory efficiency showed insignificant changes after last injection and during 12 months follow-up period.

**Conclusions:** Our findings suggested that dextrose prolotherapy may provide significant clinical improvements in joint sound and pain complaints in patients with TMJ hypermobility and osteoarthritic joints

**P-165****MRI Findings of Temporomandibular Joint Osteoarthritis**

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**Objective:** This study was aimed to identify prevalence of magnetic resonance image (MRI) findings of patients with temporomandibular joint osteoarthritis (TMJ-OA) diagnosed with cone-beam computed tomography (CBCT).

**Methods:** Fifty-five TMJ of 35 patients with osteoarthritis were included in this study. All patients were examined according to MRI findings obtained from patients with TMJ-OA diagnosed regarding to CBCT findings. Frequency analysis was made for all parameters.

**Result:** Of the 55 joint, 3 (5.5%) showed condylar flattening, 5 (9.1%) condylar erosion, 10 (18.2%) condylar osteophyte, 13 (23.6%) condylar sclerosis, 1 (1.8%) subcortical cyst, and 2 (3.6%) glenoid fossa resorption and 3 (5.5%) fossa sclerosiss. No flattening of articular eminence and pneumatization were observed in any joint. Hipomobility and hypermobility was detected in 6 (10.9%) and 17 (30.9%) degenerative joint, respectively. Joint effusion and disc perforation recorded in 19 (34.5%) and 1 (1.8%) joint, respectively. According to MRI findings, TMJ- OA detected in 28 (50.9 %) of 55 osteoarthritic joints.

**Conclusion:** MRI is not a reliable imaging technique for detecting osteoarthritic changes in TMJ.

**P-166****Two Cases Of Acute Myeloid Leukemia (AML) Who Had Diagnosed Due To Gingival Hyperplasia**

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One of the first signs of acute myeloid/myelogenous leukemia (AML) may be gingival hyperplasia disease about 3 -5 %. The most common leukemic infiltration of the gingiva are observed with AML, M4 (acute myelomonocytic leukemia) and M5 (acute monocytic leukemia) subtypes. Here we report two patients who applied to our hospital with severe complaints of hiperplastic gingiva, spontaneous bleeding and pain. Patients also had suffered from persistant infection for months and antibiotic therapy and pain killers had been applied to the both patients by different clinics and hospitals. But reduction of the patient's complaints were not observed, patients were sent to our clinic.

The swollen, red, painful and easy bleeding mucous membrane structure was observed as a result of physical examination. The patients were also suffering from weakness and fatigue.

According to existing symptoms, we had done several hemogramme and biochemical tests on patient and the results made us consider AML and because of that the patients were consulted to Hematology – Oncology Department of Erciyes University. Bone marrow aspiration biopsies were performed to the patients who had blast in the peripheral blood smear. As a result of bone marrow biopsies, AML were diagnosed for both patients and right after that the patient had chemotherapy treatment.

Gingival hyperplasia may develop because of many reasons. As in these cases, exhaustive examinations and consultations on diagnose of AML must be done in terms of fast-growing and spontaneous gingival bleeding. As clinicians, we must always be aware of the symptoms of AML and take adequate blood tests when necessary.



**P-167****Mandibular Asymmetries in Patients with Temporomandibular Joint Osteoarthritis**

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**Objective:** In this study, we aimed to determine whether condylar and ramal asymmetries exist in patients with TMJ osteoarthritis.

**Methods:** 55 patients ( $32.44 \pm 11.03$  years old) with TMJ osteoarthritis were included in this study. Condylar, ramal, and condylar-plus-ramal heights were measured on panoramic radiographs for all subjects. Descriptive data for condylar, ramal, and condylar-plus-ramal asymmetry was computed. Bilateral condylar, ramal, and condylar-plus-ramal heights were analyzed statistically with paired t test.

**Results:** No significant difference was found between two sides regarding condylar, ramal, and condylar-plus-ramal heights. Condylar, ramal, and condylar-plus-ramal asymmetries were found  $4.04 \pm 3.71$ ,  $1.63 \pm 1.23$ , and  $1.45 \pm 1.30$ .

**Conclusion:** Results of the present study indicated that subjects with TMJ osteoarthritis could have a slight condylar asymmetry, and this finding must be taken consideration for diagnosis and treatment planning.

**P-168****Broken Arthroscope Complication in Due Course of Temporomandibular Joint Arthroscopy**

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Arthroscopy of the temporomandibular joint (TMJ) is a valuable diagnostic and therapeutic tool for various intra-articular disorders, especially internal derangement of the TMJ. The effect of arthroscopic lysis and lavage lies primarily in the irrigation of the joint cavity, washout of inflammatory cytokines, mobilization of the articular disc, stretching of the capsule, and lysis of intra-articular adhesions. Although uncommon, complications do occur occasionally during or following arthroscopy. Infection, phlebitis (blood clots of a vein), excessive swelling or bleeding, damage to blood vessels or nerves, and instrument breakage are the most common complications, but occur in far less than 1 percent of all arthroscopic procedures. Because of the complex nature of TMJ, it is really very difficult to perform arthroscopy adequately. It is more common to have instrumental complications when the diameter of the endoscope is thinner. The thin endoscopes may bend easily during arthroscopy and the lenses of the endoscopes are so breakable. But also the direct visual technique has a disadvantage in that because the arthroscopic lens systems used for this technique need a channel for surgery, and the diameter of this endoscope is thick which causes a relatively high amount of surgical damage. In our case, we report a 57 year-old woman who applied to our clinic with osteoarthritis in TMJ. According to examination and radiographic evaluation, we decided to perform an arthroscopy under general anesthesia. During surgery, by means of using thin endoscopic devices, we encountered a broken lens complication that led us a semilunar view of the vision. In arthroscopic procedures, It should not be forgotten that the lenses of the endoscopes were really easy to break and that cause a lack of vision. Instead of thinner endoscopes, the clinicians could perform arthroscopy by thicker ones but they also should be very careful not to encounter serious complications.

**P-169****Fracture of An Athrophic Mandible Due to Occlusal Trauma: A Case Report**

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**Objective:** Mandibular atrophy due to edentulism leads to decreased bone mass and increased fracture risk. Fractures of the atrophic edentulous mandible are not common and present challenges to the clinician in terms of reduction and immobilization of the fracture site. The aim of this report was to present a fracture in mandible due to occlusal trauma. Case and its treatment will be discussed.

**Material-Method:** A 73-year-old male patient was referred to Selçuk University Faculty of Dentistry Department of Oral and Maxillofacial Surgery clinic. Extraoral examination showed anterior fragment of fractured mandible was seen right side of patient's face under skin and facial asymmetry was seen evidently. In intraoral examination there was not any opened wound but posterior fragment was palpable. In radiographic view fracture line was seen in right posterior mandible at 6th molar region. Under general anesthesia extraoral submandibular approach was performed and broken bone fragments were reduced to each other. Then a reconstruction plate adapted and fixed with screws. Post operative oral and radiographic examinations were performed 1,3 and 6 months. After the operation fracture line was healed well. Then prosthetic rehabilitation was performed.

**Conclusion:** Mandibular fracture due to occlusal trauma is a rare but possible complication. Clinicians must be aware of this complication especially when the factors like atrophic mandible, bone quality or osteoporosis. Patients must be informed before prosthetic rehabilitation. Also there are many treatment options for mandibular fractures but submandibular approach is still the gold standard for the treatment of atrophic mandibular body fractures.

**P-170****Effects of Arthrocentesis Plus Platelet-rich Plasma Injection on Pain during Joint Palpation after Treatment of TMJ Osteoarthritis**

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**Objective:** To compare the long-term changes of pain during lateral and posterior palpation of the joint with osteoarthritis (TMJ-OA) treated with arthrocentesis plus platelet-rich plasma (PRP) versus arthrocentesis alone.

**Methods:** We implemented a randomized clinical trial in adult patients with TMJ-OA referred to our clinic between May 2012 and July 2013. The sample was composed of 30 consecutive patients with TMJ-OA treated randomly with arthrocentesis alone (control group) and initial arthrocentesis plus PRP injection and then four consecutive PRP injections (study group). TMJ-OA diagnosed according to the Research Diagnostic Criteria for Temporomandibular Disorders (RDC/TMD axis I group IIIb). Pain during lateral and posterior palpation of TMJ were evaluated using five grading level scale (0 = absent; 1= slight; 2= moderate; 3= intense; and 4= severe) preoperatively and 12 months postoperatively.

**Results:** The sample was composed of 47 joints of 30 subjects with osteoarthritis (15 joints of 12 subjects with mean ages  $35.08 \pm 14.84$  years for the control group and 32 joints of 18 subjects with mean ages of  $32.22 \pm 14.32$  years for the study group). Pain at lateral palpation decreased significantly in both groups, but pain at posterior palpation decreased significantly in only the PRP group. However, pain at posterior palpation showed significantly greater decrease in the study group compared with the control group.

**Conclusion:** Our findings suggested that arthrocentesis plus PRP injections produced better pain relief during joint palpation compared to arthrocentesis alone.

**P-171****Management of a Patient With Cockayne Syndrome In  
Terms of Dental Care**

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Cockayne Syndrome is a rare form of dwarfism. It is an autosomal recessive disorder whose diagnosis depends on the presence of three signs: 1. growth retardation, 2. abnormal sensitivity to light (photosensitivity), and 3. prematurely aged appearance (progeria).

Progressive impairment of vision, hearing, loss of adipose tissue, mental retardation, skeletal and neurological abnormalities, and pigmentary degeneration of the retina are other significant findings of this disorder. Affected children have early postnatal contractures of the spine (kyphosis, scoliosis) and joints. Dental caries is also a common finding.

Here we report a case of 17-year-old woman with Cockayne's Syndrome who has numerous dental problems that effect her everyday life.

Significant physical and dental findings would make these syndromic patients one of the most challenging case for the dentists and anesthesiologists. Because of the difficulties encountered during clinical exam such as restricted mandibular range of motion and a very small oral entrance, the patient was treated under sedation.

A supportive team approach may be of benefit for patients with Cockayne Syndrome and may include treatment of the multiple dental problems under general anesthesia at a single session followed by special dental hygiene education and maintenance of frequent dental office visits.

**P-172****Mandibular Asymmetries in Patients with Temporomandibular Joint Hypermobility**

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**Objective:** The purpose of this study was to investigate condylar and ramal asymmetries in patients with TMJ hypermobility.

**Methods:** 24 patients ( $30.33 \pm 10.30$  years old) with TMJ hypermobility were included in this study. Condylar, ramal, and condylar-plus-ramal heights were measured on panoramic radiographs for all subjects. Descriptive data for condylar, ramal, and condylar-plus-ramal asymmetry was computed. Bilateral condylar, ramal, and condylar-plus-ramal heights were analyzed statistically with paired t test.

**Results:** Condylar, ramal, and condylar-plus-ramal heights on the one side were similar to those on the contralateral side. Condylar asymmetry index value was found  $4.04 \pm 3.94$ , while ramal and condylar-plus-ramal asymmetry index values were found smaller than 3 percent.

**Conclusion:** Subjects with TMJ hypermobility could have slight condylar asymmetry, and this finding must be taken consideration for diagnosis and treatment planning.





## P-173

### **The Effects of Temporomandibular Joint Hypermobility on Dental and Skeletal Asymmetries**

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**Objective:** The purpose of this study is to investigate whether dental or skeletal asymmetry exists in patients having temporomandibular joint hypermobility.

**Methods:** The study sample included 24 adult subjects having temporomandibular joint hypermobility aged between 22-66 years old. Dental and skeletal asymmetry values were computed on posteroanterior radiographs for all subjects for the following parameters: Upper and lower dental midline deviation (dental midline discrepancy), menton deviation, occlusal plane tilt, frontal convexity (right and left sides), jugular process distance relative to midsagittal reference line (right and left sides), antegonial notch distance relative to midsagittal reference line (right and left sides), antegonial notch-menton distance (right and left sides). Data was analyzed by means of paired t test.

**Results:** Mean dental midline discrepancy, menton deviation, and occlusal plane tilt is ranged from 0 to 1 mm. No significant difference was observed in the parameters measured bilaterally.

**Conclusion:** The results of this study indicated that the subjects who had temporomandibular joint hypermobility have no significant skeletal and dental asymmetries.

**P-174****Temporomandibular Joint Hypermobility: CBCT Findings, Clinical Features and Correlations**

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**Objective:** This study was aimed to identify prevalence of and associations between clinical signs and symptoms and cone-beam computed tomography (CBCT) findings of temporomandibular joint (TMJ) hypermobility.

**Methods:** The first-visit clinical records and CBCT data from 41 consecutive patients presented for the evaluation and management of TMJ hypermobility between January 2012 and June 2014 were assessed in this study. Sixty eight hypermobility joint of 41 patients, with mean ages of  $32.83 \pm 13.63$  years, were included in this study.

**Results:** The most frequent condylar bony changes observed were condylar erosion (43 joints, 63.2%), condylar osteophyte (32 joints, 47.1%), condylar hypoplasia (8 joints, 11.8%), condylar sclerosis (8 joints, 11.8%), flattening (6 joints, 8.8%), subcondral cyst (3 joints, 4.4%), and flattening of articular eminence (3 joint, 4.4%) in orderly. Pneumatization and bifid condyle were observed 1 joint (1.5 %). 41 patients had bilateral and 35 patients had unilateral degenerations, respectively. Degenerative joints were observed in 47 (%69.11) of TMJ hypermobility respectively. Pain, joint sounds, and worsened mastication were common in these patients. No correlations found between almost all parameters included CBCT osseous findings of condyle and clinical signs and symptoms of TMJ hypermobility.

**Conclusion:** Osseous changes of TMJ and clinical complaints are common findings of TMJ hypermobility. CBCT is a powerful diagnostic tool for the diagnosis of TMJ hypermobility

**P-175****Intrusion and Luxation of Maxillary Incisors with Displacement of The Labial Alveolar Cortical Bone: A Case Report**

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**Objective:** Tooth luxation occurs in many cases of maxillofacial trauma in children. The maxillary central incisors are most frequently luxated. The aim of this study was to provide surgical repositioning of intruded maxillary incisors.

**Material and Method:** A 10-year-old female patient was referred to Selçuk University Faculty of Dentistry Department of Oral and Maxillofacial Surgery clinic for management of trauma after she fell down at school. The patient complaint was pain in the maxillary anterior region. The intraoral examination showed that the maxillary right and left central incisor was submerged in the alveolar bone completely. Intraoral periapical radiographs taken of the maxillary anterior region showed the presence of intruded incisors. In surgical approach mature permanent teeth intruded beyond 3 mm should be repositioned surgically. Then repositioned teeth were splinted. After surgery 1, 3 and 6 month follow ups were performed.

**Conclusion:** Intrusion injuries in permanent teeth are difficult to manage and have a poor prognosis for healing. Pulpal necrosis, root resorption, and alveolar bone loss are common sequelae, and treatment is controversial because of the lack of clinical research. In conclusion, surgical repositioning of intruded teeth provide aesthetics and speech development.

**P-176****Management of Unilateral Condyle Fracture by Botulinum Toxin A (BTA)**

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**Objective:** Mandibular fractures are most commonly seen at condylar region. Condylar region is susceptible to trauma. The treatment methods of condylar process fractures have generated a great deal of discussion and controversy. Many different methods has been used such as open surgery, conservative and closed reduction by inter-maxillary fixation or splints. For closed therapy local injection of botulinum toxin A temporarily blocks the muscle's impulse and has been revealed to be an effective treatment method for many condyle fractures. Furthermore, the side effects are generally minimal, temporary, reversible, and self-limiting.

**Methods:** A patient with severe pan-facial fractures was attended to our hospital. Blow out fracture at infraorbital rim, displaced zygoma and zygomaticofrontal fracture was present in addition to mandibular body and right condyle fractures. When the patient got systemically stable and critical interventions was made, management of the facial fractures was planned.

**Results:** Peri-orbital operations was performed with rigid fixation. It was decided to inject botulinum toxin type A to lateral pterygoid muscle to correct displaced mandibular condyle fracture. Injections are performed under electromyographic control.

**Conclusion:** As generally agreed, conservative treatment should always be the first line of treatment for condyle fractures. The present study was designed following the promising preliminary results successful use of injection botulinum toxin type A for displaced mandibular condyle fracture. BTA has been used to immobilize muscles after jaw fractures to reduce the displacing forces on the fracture ends and obtain good immobilization especially if rigid internal fixation is not available or feasible.

**P-177**

## **The Rehabilitation of Patient Treated with Oral Bisphosphonates with Dental Implant Supported Prosthesis**

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Bisphosphonates are potent osteoclast and bone turnover inhibitors therefore this class of drugs were used for treatment of bone disease. In 2003, Marx pointed out the relationship between bisphosphonate therapy and osteonecrosis of the jaw. In recent years, numerous cases of bisphosphonate-associated osteonecrosis of the jaw (BRONJ) have been reported involving both intravenous and oral therapy regimens. Oral bisphosphonate-induced necrosis appears to be less frequent, less severe compared with intravenous bisphosphonate therapy. However cautious approach to extraction and implant surgery should be done for patients receiving bisphosphonate therapy either intravenously and orally. This case report presents the implant supported prosthetic rehabilitation of patient who were received oral bisphosphonate for a duration of 3 years and stopped the therapy for one year.

**P-178****Management of Bisphosphonate-Related Osteonecrosis of the Jaw With a Platelet-Rich Fibrin Membrane Coated with Topical Metronidazole**

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Bisphosphonates related osteonecrosis of the jaw (BRONJ) has been described as a serious complication of bisphosphonates. BRONJ lesions can develop spontaneously or after dentoalveolar processes. During oral surgery procedures in BRONJ patients, bone exposure might cause to bacterial invasion, and microbial contamination that seems to play an important role in osteomyelitis wounds. In recent literature, several studies discuss a range of different treatment modalities a range of topical to surgical treatment including laser phototherapy, hyperbaric oxygen therapy and platelet concentrations. Platelet-rich fibrin represents a relatively new biotechnology for the stimulation and acceleration of tissue healing and bone regeneration. This case report describes the management of 2 cases of BRONJ using platelet rich fibrin (PRF) coated with topical metronidazole.





## P-179

**Different Radiological Findings with The Same Pathologic Diagnosis: Two Cases of Cemento-Ossifying Fibroma**

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**Objective:** Cemento-ossifying fibroma (COF) is classified as a benign bone neoplasm, composed of fibrous tissue containing variable amount of calcified material structurally similar to bone and/or cement. It presents slow expansile progression, however, the esthetical deformity resultant from attaining enormous size, if left untreated or not realized. However, tumor has been reported to involve most frequently the maxillary or mandibular regions, it has been found in bones lacking periodontal membranes, such as the ethmoid bone, frontal bone or even long bones of the body, in accordance with the literature against the hypothesis supported that COF may arise from the mesenchymal blast cells of the periodontal ligament. A number of radiographic patterns described depending on the degree of calcific flecks of the lesion have a great importance to differentiate COF from the other fibro-osseous lesions. The purpose of this presentation is to compare different radiological features of two cases of cemento - ossifying fibroma involving the mandible.

**Method:** Two patients were referred with a complaint of painless gradual swelling at body of the right mandible. Computed tomography scan confirmed expansion of the buccal and lingual cortices of the mandible in both cases, one of which demonstrated a unilocular cyst-like lesion of the approximate size of 2 × 2 cm at the apex region of mandibular first molar with an irregular low -density. However the other case presented a round-like high-density mass extending from 34 to 37 at the posterior edentulous region with well defined radiolucent boundary line at periphery which approximately measured 6 cm × 2 cm. Surgically enucleation followed by curettage of the residual cavity was performed at the same time in both cases. Additionally, the involved teeth was extracted in second case. Histopathological analysis of the first case had shown some calcified areas in highly cellular fields. Different patterns of fibroblasts were observed in fibrous tissue. Calcified areas appeared to be composed of bone and cementum like material. The microscopic examination of second case revealed a mixture of bone, cementum and lamellar tissue with peripheral fibrous stroma. The lesions were diagnosed as a cemento-ossifying fibroma. In both cases, patients were reviewed after 3 months of surgery, and both cases are under follow-up.

**Conclusion:** The presentation shows the different radiographic characteristics of COF as a pattern of cystic lesion and mixed-density lesion. The diagnosis of cemento-ossifying fibroma is performed by the clinical and radiological aspect of the lesion. Treatment is surgical enucleation-resection depending on the size of the lesion. The recurrence of these benign tumors following surgery is considered rare.



## P-180

### Management of Oro-Mandibular/Cervical DystoniaB with BTX-A Injections

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Oro-mandibular /cervical distony is a disabling disorder which detoriate patients>s quality of life. Patients with this neuromuscular disorder lack control of voluntary muscles and experience permanent contractiles that cause speaking and swallowing difficulties. We present management of oro-mandibular dystonia with BTX -A injections in 3 patients. Benefits and disadvantages of BTX-A application would be discussed.

**P-181****Clinicopathological Study of Odontogenic Cysts in  
The Jaws in Diyarbakir Region of Turkey**

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**Objective:** The purpose of this retrospective study was to analyze clinic and radiologic features and the prevalence of jaw odontogenic cysts in Diyarbakır region of Turkey.

**Methods:** This study was carried out in 794 odontogenic cysts of the jaw diagnosed among individuals who were treated in our department from September 2006 to February 2016 during recent 10-year period. All cysts were treated by enucleation, marsupialization or combination.

**Results:** There were 458 cysts (%57,7) in men, 336 cysts (%42,3) in women. Male to female ratio was 1.36. We found 398 cysts (224 M, 174 F) in the maxillary and 396 (234 M, 162 F) in the mandible. It is observed that 719 were radicular cysts, 36 were dentigerous cysts, 17 were odontogenic keratocysts, 19 residual radicular cysts and 6 were eruption cysts. 12 cysts were treated by marsupialization and then enucleation. Others were treated by enucleation. 86 cysts were major cysts which were related to four teeth and more. Clinically, the chief complaint of patients was expansion and pain. Radiographically, in lesions scalloping of the lesion between the teeth, root resorption, displacement of the teeth and follicles were seen.

**Conclusion:** We found similar prevalence of jaw cysts that reported in the literature, in which most odontogenic cysts were inflammatory origin.

**P-182****Orthognatic Surgical Treatment of A Patient with Lingual Orthodontics**

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**Objective:** With the development of new aesthetic orthodontic techniques (lingual orthodontics, invisalign etc.) more adults seek orthodontic treatment. Even the patients with dentofacial deformities demand invisible appliances for their treatment. When combining lingual orthodontics and orthognathic surgery, precise planning is necessary involving a diagnostic set-up and profile analysis in close cooperation with the surgeon. Treatment results depend on the accuracy of orthodontic preparations and a surgical correction according to plan.

**Materials-Method:** In this case report, the treatment of a patient with lingual orthodontics and orthognathic surgery, will be presented. An 18 year old female patient requested orthodontic treatment for her prominent mandible and insufficient cheek bone contour. The cephalometric analysis indicated a retro positioned maxilla and a prognathic mandible, with an ANB angle of -7.5°. The treatment plan involved a double jaw surgery. Lingual bonding of all the teeth were carried out using Incognito system and the presurgical orthodontics lasted 17 months due to upper maxillary premolar extractions. Six miniscrews and clear buttons were placed to secure the surgical splint during the operation.

**Result:** The maxilla was positioned 4 mm forward and mandible was positioned 7 mm backwards. Posttreatment orthodontics started 4 weeks after the surgery.

**Conclusion:** Ideal occlusion in conjunction with ideal facial profile was achieved. The result demonstrates that extensive orthodontic treatment requiring orthognathic surgery to correct a skeletal malocclusion is feasible with a fixed lingual appliances.

### P-183

### 3d Guidance for Multiple Impacted Teeth

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**Objective:** Cleidocranial dysplasia (CCD) is a genetic skeletal disorder characterized by skeletal alterations at numerous bone segments and a typical hyperdontia. The constant presence of numerous supernumerary teeth can cause mechanical obstacle to the eruption of normal teeth. Accordingly aesthetic and functional problems are usually present in these patients. Surgical therapy is indispensable to restore a correct architecture to the alveolar-dental arches. Recently CBCT with dental software programs are important diagnostic tools for detecting and evaluating the pathologies on dentomaxillofacial region and have become widely available. In this case report, a treatment concept with an implant supported, screw retained fixed prostheses for CCD patient was reported with clinical terms.

**Methods:** A 48 years old female CCD patient presented at our department for a dental implant evaluation. She was in good health, was not taking any medication, had no known drug allergies, and no contraindication for dental treatment. Before the surgery panoramic radiograph and CBCT images were captured. The oral surgeon and radiologist evaluated the 3D images together and planned how to approach the unerupted teeth buccally or lingually, depending on their positions. Surgical extraction of impacted teeth on potential implant sites was performed under general anesthesia with the guidance of 3D CBCT images. Total of 32 teeth was extracted and bone defects were repaired with iliac crest graft. Minimally invasive, template-guided, implant surgery method was applied for maxilla and mandibula. Six implants were applied to upper jaw and four implants were applied to lower jaw in accordance with the concept of all on four (T6:Nucleous, İzmir, Turkey).

**Results:** Reevaluations were done to specify tooth position, phonetic, esthetic and proper vertical dimension for suitable upper and lower prostheses. Canine protected occlusal relation was adjusted which was ideal for proper appearance and avoid excessive occlusal loads. After the prostheses positioned on the implants with ensuring the aesthetic and function the abutment screws were tightened to 35 N cm torque. The saddle area and pontics of fixed partial denture were controlled for avoiding food accumulation. The light-cure composite was used for filling screw-access. The oral hygiene instructions was given and periodontal maintenance protocol applied to patient.

**Conclusion:** Prosthetic treatment planning for CCD patients is complicated because of lots of host factors. The implant retained fixed partial denture can be beneficial for prevention of bone resorption and getting more comfortable, stable dentures. Long term studies and more clinical cases needed for determining the ideal therapeutic approach for CCD patients.



**P-184****Extreme Maxillary Atrophy Treatment Solutions With Zygoma Implants**

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**Objectives:** Implant-supported or -retained fixed or removable prostheses application on extreme resorption of the edentulous maxilla or large pneumatized maxillary sinuses patients could only be considered after extensive ridge augmentation. This augmentation usually included major autologous bone grafting, prolonged length of treatment and surgical steps, long-term inability to wear any prosthesis, and a higher failure rate for conventional implants placed in large bone grafts. The zygoma implants could be used as an alternative treatment on this patients. The zygoma implant systems allows anchoring from zygomatic bone, presents regular and compact trabecular bone on residual alveolar ridge. Immediate loading after implant placement is an advantage for patients comfort, convenience and enhanced function. The aim of this paper is introduce zygoma implant rehabilitation on a patient with extreme maxillary atrophy.

**Methods:** A 50 year old female patient with total edentulous maxilla required fixed implant-prosthetic rehabilitation. Radiological evaluation showed atropic maxillary ridge and pneumatized maxillary sinuses. The implants were inserted under general anesthesia, two zygoma implants on premolar region and two conventional implants on premaxilla region.

**Results:** In this paper we reported implant reconstruction with zygoma implants on an atrophic, edentulous patient. Two zygoma and two conventional implants were inserted and temporary prosthesis was applied immediately. There were no complication on 2 years follow-up period.

**Conclusion:** As a conclusion Zygoma implants is a reproducible and predictable alternative to bone grafts, with the advantage of a considerable saving of time. However longterm follow-up periods needed to evaluate success of zygomatic implant reconstruction with immediate prosthesis.



### P-185

### Surgical Excision of a Fibrosarcoma of The Mandible

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**Objectives:** Fibrosarcoma has been defined as a malignant mesenchymal tumour, the cells of which recapitulate the appearance of the normal fibroblast, with variable collagen production. Fibrosarcoma is a very uncommon tumour in the head and neck regions constituting only 0.05% of all the fibrosarcomas presenting in humans. This tumour is usually seen in the 3rd to 5th decades of life with a slight male predilection. When it occurs in the oral cavity, it is usually seen in the mandible rather than in the maxilla. They cause no characteristic symptoms and pose difficulty in clinical diagnosis. In this paper we introduce surgical excision of a Fibrosarcoma of The Mandible.

**Methods:** 17 years old male patient came to our clinic with the complaint of about 1 cm diameter painless hardness in the left side of chin which can be felt by palpation but any swelling form can not be observed both extra and intra orally. Clinic and radiographic examinations showed no dental related cause and an intraoral incisional biopsy was taken from the buccal area for an accurate diagnose. After performing the biopsy a rapid swelling formed in the region which can be noticed both intra and extra orally. The result of incisional biopsy came as myofibroma and according this base an intraoral excisional surgery was performed with general anesthesia after two weeks from the biopsy. The whole mass was extracted with exception the part associated with mental nerve to avoid a permanent nerve injury. Two weeks after the excisional surgery, patient came with more expanded swelling in the same region and the result of second biopsy came as fibrosarcoma. Based on this information an extraoral surgery with more radical approach under the general anesthesia performed for prevention of recurrence. The whole pathology removed even sacrificing the mental nerve. After the surgery, patient directed to an oncology clinic for application of chemotherapy and follow up.

**Results:** The intra oral approached conservative surgery with protecting mental nerve resulted a rapid recurrence of fibrosarcoma in two weeks. The second excisional surgery which performed extraorally, a more radical approach preferred. Whole pathology removed including with the mental nerve. After 6 months of surgery no recurrence was observed and long term follow up is needed for an early diagnose of a recurrence.

**Conclusion:** Fibrosarcoma is a malignant neoplasm arising from the fibroblasts of the connective tissue. This is a common neoplasm of the bone and it is also found in soft tissues and rarely observed in oral cavity. When fibrosarcoma is suspected, it should be differentiated from other tumours in the oral cavity. The treatment of choice is surgical excision with a wide margin. A proper follow up of the patient is essential as this tumour possess high recurrence rates.

**P-186****Partial Anterior Segmental Osteotomy for Reposition of Malpositioned Dental Implants: A Case Report**

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**Objective:** Many complications can occur with the increase of implant usage, and methods of solving these problems have been developed. One complication is insertion of the implant in the wrong direction/position. Due to severe apical positioning of the implant fixtures, acceptable prosthetic treatment was not possible.

**Methods:** The aim of this case report is to describe an osteotomy technique to reposition malpositioned dental implants. A female patient, aged 45 years, was referred complaining of the malpositioned osseointegrated implants, which had been placed in the region of the maxillary central incisors. Alveolar segmental osteotomy procedure was used to reposition the implants. During the procedure only vestibular flap was removed, palatal flap was left attached for vascular support of mobilized segment

**Results:** Repositioned implants were functionally loaded after 7 months. Satisfactory results were obtained by osteotomy for 20-month of follow up.

**Conclusions:** It is observed that excessively axially placed implants due to insufficient vertical alveolar bone can be successfully treated by alveolar segmental osteotomy. The preservation of marginal gingiva permits obtaining better prosthetic results.

**P-187****Treatment of Central Giant Cell Granuloma with  
Intralesional Corticosteroid Injection: Three Case Reports**

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**Objective:** The 'Central Giant Cell Granuloma(CGCG)' is an uncommon lesion, accounting for fewer than 7% of all benign jaw lesions. Intralesional corticosteroid use for the treatment of CGCG was first described by Jacoway et al in 1988. The rationale for its use was the histologic resemblance of the CGCG to sarcoid. Because steroids are effective in the treatment of sarcoid, it was thought that they might have a similar therapeutic value in the management of CGCG. It was also thought that steroids might act by suppressing any angiogenic components of the lesion.

**Method:** Three patients with central giant cell granuloma treated with intralesional corticosteroid injections. To accomplish this, 20mg/2ml Prednol(metilprednisolon) and 2ml Jetocain(20mg Lidocain, 0.0125 mg efinephrin) were mixed and injected into different areas of the lesion. The patients were followed radiologically by panoramic radiography and computerized tomography after corticosteroid injection.

**Result:** After weekly intralesional injections, clinical and radiographical examinations showed lesion became smaller and calcsified.

**Conclusion:** Surgical resection has resulted in a low recurrence rate. Depending on the size and location of the lesion, surgical intervention will be associated with varying degrees of morbidity. Apparently, the treatment with intralesional steroid injections is advantageous for large CGCG in order to reduce the size of the lesion and thus minimize the need for extensive bone resection and loss of teeth that can result in functional and aesthetic defects. Intralesional corticosteroid injection is considered to be a safe, effective and more comfortable treatment of CGCG, especially with non-aggressive lesions

**P-188****Mucoepidermoid Carcinoma Localized in Palate: Case Report and Review of the Literature**

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**Objective:** Salivary gland carcinomas are a clinically varied group of neoplasms with histological patterns overlapping other tumors, thus complicating their diagnosis. This study aimed to investigate the clinical presentation and histopathologic aspects of mucoepidermoid carcinoma.

**Methods:** During 6 months period 3 different patients were evaluated clinically with palatal swelling seen any symptoms. The lesions were decided to be enucleated. The lesions, which extended from the premolar region to the molar region, was a firm nodule covered with normal mucosa but the borders of the lesions were irregular. Histopatholigcal evaluation showed mucoepidermoid carcinoma for all patients.

**Results:** Lesions were evaluated primarily as pleomorphic adenoma because the radiological findings did not showed destruction. This study includes 3 patients with minor salivary gland tumor as mucoepidermoid carcinoma localized in palatal region, mean age of 44 and all female patients..

**Conclusion:** Salivary gland tumours comprise almost 5% of head and neck malignancies. Minor salivary gland tumours account for 10–15% of all salivary gland neoplasms and are usually malignant. The second most common minor salivary gland tumour (12–40% globally) is mucoepidermoid carcinoma. A retrospective study conducted in Iran from March 2000 to March 2015 represents that pleomorphic adenoma was the most common occurring tumor, comprising 32.6% of all tumors, followed by mucoepidermoid carcinoma (27.1%) and adenoid cystic carcinoma (22.2%) Two recent large retrospective reviews reported on average that 44% of 546 minor salivary gland tumours were malignant. A study in US presented among 160 patient that most common malignant tumour diagnosed was mucoepidermoid carcinoma, which made up 48–52% of all cancers. It is critical to differentiate such tumors from common benign salivary gland lesions.

**P-189****Giant Sialolithiasis Perforating The Floor of The Mouth:  
A Case Report**

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**Objective:** Patient presenting with an unusually large submandibular gland duct sialolithiasis is presented.

**Methods:** A 52 year-old man patient was referred to our clinic with a dysphagia and recurrent pain in the right mandibular area. Radiographical examination revealed large irregular radio-opaque mass located floor of the mouth at second molar place. Intraoral examination showed yellow, irregular mass near the base of the tongue with hyperemic mucous membrane around it. Patient, also denoted about a removed sialolithiasis history. No information about mass or the surgical procedure was achieved. Sialolithiasis was removed with minimal surgical excision through the perforated duct.. Salivary flow was occurred at the perforated area.

**Result:** Salivary calculi are usually small and measure from 1 mm to less than 1 cm. They rarely measure more than 1.5 cm. Large and giant especially irregular calculi may perforate the floor of the mouth by ulcerating the duct or may result in a skin fistula by causing a suppurative infection. Clinical and radiological features of a large sialolith which was 20 mm in the size was presented in this case report. It was located into Wharton's ducts near the base of the tongue at second molar area place. Sialolithiasis, seems to perforated the wharton's ducts curve which was placed at the edge of the mylohyoid muscle.

**Conclusions:** Large sialolithiasis are rarely reported. Perforation of the duct causes a new point for salivary flow which may cause minimal negative effect on the maintenance of the oral health.



**P-190****Mandibular Reconstruction with Anterior Ilium Crest  
After The Curettage of Osteomyelitis Seen at Anterior  
Mandible: A Case Report**

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**Objective:** The deformity and disability caused by mandibular defects always decrease the quality of patient's life. The goals of mandibular reconstruction are to establish bone continuity with adequate anteroposterior and transverse relationships to the maxilla and provide a functional oromandibular complex preserving speech, mastication and deglutition. Autogenous bone grafts are often used in maxillofacial surgery for reconstruction. Autogenous grafts can be obtained from calvaria, costal, tibia, iliac and maxilla-mandibular bone. Anterior iliac crest is an accessible area to get adequate, quality and quantity of bone. The aim of the current report is to present surgical (with the iliac bone) rehabilitation of an 28 aged male patient who had a genioplasty surgery 8 years ago and was referred to our clinic because of (the radiolucent lesion) osteomyelitis at the anterior mandible determined in the panoramic radiography.

**Methods:** The patient was operated under general anaesthesia. Two mini plates and eight screw which placed on a previous genioplasty surgery was removed. Surgical curettage with extraction of mandibular left lateral, mandibular right canine and mandibular right first premolar teeth was applied for treatment of osteomyelitis seen at around the mini plates. Autogeneous graft was obtained from anterior iliac crest. Miniplates and screws were used to stabilize the graft onto the recipient area. The site was re-entered after 6 months for removal of the fixation plates, screws, and insertion of the implants.

**Results:** Patient was undertaken follow up period with 2 months intervals. Solid bone regeneration was observed at anterior mandible. After 6 months of healing period 2 endosteal implant were placed to anterior mandible.

**Conclusions:** The present case shows that surgical curettage is the most effective method of treating chronic osteomyelitis and autogeneous bone graft obtained from anterior iliac crest is a predictable technique for augmentation of mandibular deficiency.



**P-191****Chronic Extraoral Fistula Related with Mandibular Molar Infection Seen 25 years ago: A Case Report and Review of Literature**

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**Objective:** The extraoral facial fistulas are often have odontogenic origin. Although the differential diagnosis of draining lesions should include various types of skin infection, infected tumour, failed wound healing, foreign body, salivary gland fistula, sebaceous cysts and developmental cysts and fistulas.

**Methods:** A 70 years old male patient was referred to our clinic with extraoral fistula. Clinical examination and patient history confirm that the fistula occurred 25 years ago after submandibular infection related with the first molar tooth. The tooth was extracted 25 years ago but any curettage was applied to the infective side. Patient was complaining painless, smelly chronic extraoral fistula linked with oral cavity. Radiographical examination occur with placed gutta percha on related area and revealed that left molar toothless area and extraoral fistula has connection. The incision site was curettaged, irrigated debrided the fistula borders and closed in layers.

**Result:** In this case, we aimed to curettage, remove the fistula and close the pathway between facial skin and oral cavity. Treatment was simple and we achieved full intra and extra-oral repair.

**Conclusions:** Fistula is an abnormal pathological pathway between two anatomic spaces or a pathway that leads from an internal cavity or organ to the surface of the body. Cutaneous fistula is a pathologic communication between the cutaneous surface of the face and the oral cavity. In the literature, the terms fistulas are often used interchangeably. A cutaneous fistula of dental origin is a rare entity. Extraoral fistula are often reported.

**P-192****Rehabilitation of Resected Maxilla with Zygomatic  
Implant Supported Overdenture Prosthesis**

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Maxillary and mandibular defects are created by surgical treatment of benign or malignant neoplasms, armed injury or trauma and congenital malformation. Lack of support, stability and retention are common prosthodontic treatment problems for patients who experienced maxillofacial defects. The size and location of the defect influence the patients' clinic status and determine the management of prosthetic rehabilitation. In these cases, zygomatic implant is an alternative treatment choice for supporting the prosthesis when rehabilitating such defects. In this case report, to restore masticatory function and improve speech and esthetics of the 35 years old maxillary defect patient an overdenture prosthesis is used for maxilla which is supported with a zygomatic implant on the defect side.

## P-193

**Flapless Implant Surgery in the Esthetic Region:  
A Case Report**

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The success of implant therapy depends on successful osseointegration during the recovery period. But according to high technology of materials evolution the current trend is to develop techniques that can provide function, esthetics, and comfort with a minimally invasive surgical approach. This paper presents a clinical case of single-tooth implant placement in the esthetic region (anterior maxilla), which illustrate approaches to flapless implant surgery for immediate loading protocol. A 19-year-old woman missing a maxillary left lateral canine was treated using flapless implant placement and an immediate provisional acrylic crown. The three-dimensional analysis and virtual implant planning was performed with the NobelGuide software program. The use of a computer program for prosthetically driven implant planning is highly efficient and safe. The three-dimensional view of the maxilla allows the determination of the best implant position, the optimization of the implant axis, and the definition of the best surgical and prosthetic solution for the patient.

Drilling procedure



insertion of implant



mucosa view after drilling



mucosa view after insertion





temporary prosthesis

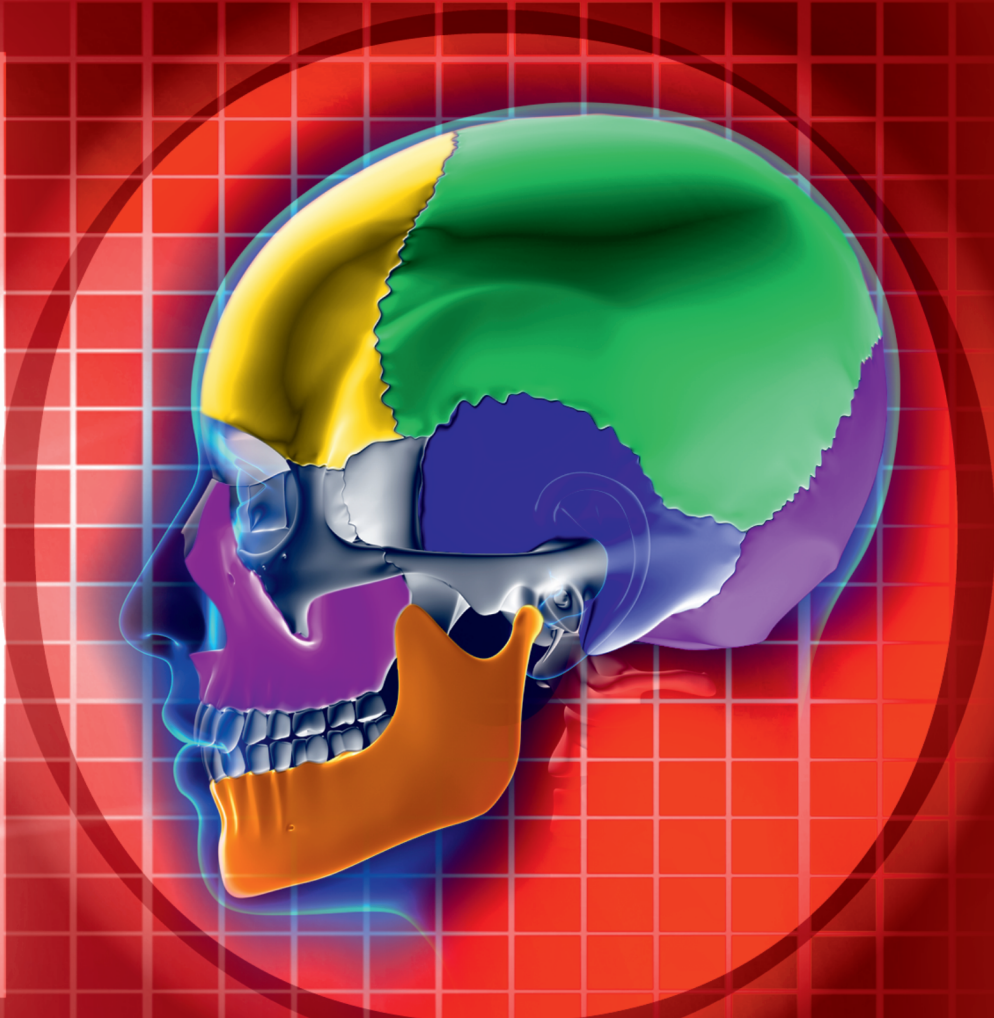






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