



29 May - 2 June, 2013  
Cornelia Diamond Convention Center / Antalya - Turkey

# ACBID 2013

## 7<sup>th</sup> International Congress



### ABSTRACT BOOK

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**ACBİD 2013 7<sup>th</sup> International Congress**

**29 May - 2 June, 2013**



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**Dear Colleagues,**

We have held in the month of May our 6th International Congress with over 500 participants from 20 countries, including 39 invited spokespersons of international acclaim. In addition to the 76 oral and 186 poster presentations, the event housed 7 lunch and learn sessions and 3 training courses with 2 of them being hands-on practices. The ACBID congress has once again achieved a high level of success in the name of science, while providing a pleasant experience for the participating colleagues who enjoyed the diverse range of social activities throughout the congress schedule.

Since its founding, our association has been maintaining an active schedule of scientific events; launching training courses, symposiums and congress events which enable our respectful colleagues to reinforce their knowledge and share their experiences with each other; while at the same time enabling young prospective maxillofacial surgeons to expand their horizons and improve their etiquette. In this context; the upcoming symposium that will be held in Erciyes, which is the first scientific event in this year's schedule; carries a significant meaning. 7 years after our symposium held at Marmara University, which had a theme of ortognathic surgeries including live surgical practices and which was the first scientific event ever held following the founding of our association; basic principles of Ortognathic surgery and latest improvements in the field will once again be discussed by invited spokespersons in Erciyes University Hospital of Oral and Maxillofacial Surgery, the first hospital that displays the name of our specialty branch in its name. I whole heartedly invite all my colleagues at the event, which will be accompanied with social activities including winter sports in the snowy peaks of Erciyes, and wish a successful winter season for you all.

As a conclusion of countless positive comments from our colleagues regarding the meeting grounds and the schedule of our previous congress; we have decided to meet again next year at the same time and at the same place, with of course, a much more interesting scientific program accompanied by an even more enjoyable social events schedule. Therefore, I would like to inform you that our congress, which is traditionally held at the end of May each year in Belek, will once again be held at the Cornelia Diamond Hotel starting on 29th of May. With training courses, 3D presentations, and live surgery practices a rich schedule shall await our colleagues once again.

We are going to provide all of you with further information on the event, detailing the scientific program and the social activities schedule very soon.

With due respect,

**Prof. Dr. Selçuk Basa**  
**President of Oral and Maxillofacial Surgery Society (ACBID)**



**Dear colleagues,**

On behalf of Oral and Maxillofacial Surgery Society (AÇBİD) it is my pleasure to invite you to the AÇBİD2013 7th International Congress, which will be held between the dates of May the 29th - June the 2nd at Cornelia Diamond Hotel located in Antalya-Turkey.

Despite the incredible improvements in the communication industry in the recent years, it would not be wrong to say that face-to-face sharing and critiquing of accumulated experiences and scientific knowledge in the warm and friendly atmosphere of a congress is still as much important and indispensable as ever. As seen in every discipline and industry concerning healthcare, there are fast-paced developments today in the field of Oral and Maxillofacial Surgery, which progress alongside technological and multi-disciplinary efforts. For this reason, the main goal of our congress is to contribute into the developments in OMFC, by providing a suitable environment where accumulated knowledge in subjects within the OMFC framework from our colleagues of international fame will be evaluated, whereas newer information will be shared and discussed upon.

During the congress, clinical experiences and surgical research of fellow scientist invited from around the nation and all over the world will be conveyed alongside 3D presentations, workshops and panels; ensuring a highly effective knowledge transfer between the masters of our field and the younger scholars. Additionally, scientific activities in the congress event shall be complemented by social activities that shall enrich our perspectives on Turkish culture and arts, while also demonstrating our hospitality to our guests. I sincerely hope that this event, which has been carefully planned by our young colleagues with the passion of scientific achievement in their hearts, shall be at least as successful as the previous AÇBİD congresses.

We await you in our congress, to witness the awakening of the nature in the most cheerful season of the year, at one of the most beautiful and world renowned cities of Turkey; and to immerse yourself in scientific knowledge and friendship.

With due respect,

**Prof. Dr. Asriye Mocan**

**President of AÇBİD2013 7th International Congress**



**CONGRESS PRESIDENT**

Asriye Mocan

**PRESIDENT OF ORAL AND MAXILLOFACIAL SURGERY SOCIETY**

Selçuk Basa

**SCIENTIFIC COMMITTEE**

Doğan Dolanmaz

Timuçin Baykul

İsmail Doruk Koçyiğit

**ORGANISING COMMITTEE**

Figen Şenel

Umut Tekin

Bora Özden

**TECHNICAL COMMITTEE**

Altan Varol

Erdem Kılıç



Wednesday, 29 <sup>th</sup> May 2013	
08:30-18:00	REGISTRATION
09:00-17:00	PRE-CONFERENCE HANDS-ON FRESH CADAVER COURSE AKDENİZ UNIVERSITY
	"TMJ Arthroscopy" <span style="float: right;">Reha Kışınçı, Gerhard Undt</span>
13:30-15:00	PRE-CONFERENCE MINI COURSE MAIN HALL <span style="float: right;">Chairpersons: James Brown, Selçuk Basa</span>
	"Botox and Fillers" <span style="float: right;">Ilanko Ilankovan</span>
15:00-15:30	COFFEE BREAK
15:30-16:45	PLENARY SESSION 1 – RECONSTRUCTION MAIN HALL <span style="float: right;">Chairpersons: Piet Haers, Mohammad Bayat, Onur İçten</span>
15:30-15:55	"Principles of Management of Oral Cancer: From Diagnosis to Treatment" <span style="float: right;">Nick Kalavrezos</span>
15:55-16:20	"Microvascular Reconstruction of the Mandible" <span style="float: right;">Vedran Uglesic</span>
16:20-16:45	"Reconstructing the Maxilla, Orbit and Nose" <span style="float: right;">James Brown</span>
18:00-19:00	OPENING CEREMONY
19:00-20:00	WELCOME RECEPTION
20:00-21:30	DINNER

Thursday, 30 <sup>th</sup> May 2013			
08:30-17:00	POSTER PRESENTATIONS		
08:30-17:00	EXHIBITION		
08:30-09:30	ORAL ABSTRACT SESSION 1	ORAL ABSTRACT SESSION 2	ORAL ABSTRACT SESSION 3
	HALL A Chairpersons: Funda Tuğcu, Gühan Dergin, Mohammed Saeid Hamed	HALL B Chairpersons: Sanjiv Nair, Timuçin Baykul, H. Ayberk Altuğ	HALL C Chairpersons: Hossein Mesgarzadeh, Hanife Ataoglu, M. Cemil Büyükkurt
08:30-08:40	<b>OP-01</b> Surgical Approach to Complicated Orbital Bone Fractures <i>Fawzy Tantawy, Abo Derra</i>	<b>OP-07</b> Marginal bone changes around platform switching implants placed at crestal or subcrestal positions: a 1- year clinical and radiographic evaluation <i>Esmâ Kütan Mısırlıoğlu, Nilüfer Bölükbaşı, Tayfun Özdemir</i>	<b>OP-13</b> Comparison of the Soft Tissue Reactions to Four Different Suture Materials in a Rat Model <i>Firat Selvi, Sırmahan Çakarer, Bilge Bilgiç, Mehmet Yaltrık</i>
08:40-08:50	<b>OP-02</b> 'A New 'K' Shaped Miniplate Design for Mandible Angle Fractures - Mechanical Test Study <i>İsmail Doruk Koçyiğit, Süleyman Kaman, Hakan H. Tüz, Berkay Tolga Süer, Fethi Atlı, Umut Tekin</i>	<b>OP-08</b> Use of Zygomatic Implants for Rehabilitation of Severe Atrophied Posterior Maxilla <i>Belir Atalay, Ülkem Cural, Özge Cetin, Aysegül Erten, Yusuf Emes, Buket Aybar, Hakan Bilhan, Selen Ergin</i>	<b>OP-14</b> Clinical Comparison of Submucosal Injection of Dexamethasone and Triamcinolone Acetonide on Postoperative Discomfort After Third Molar Surgery <i>Tamer Zerener, Yavuz Sinan Aydıntuğ, Metin Şençimen, Gürkan Raşit Bayar, Mahmut Yazıcı, Hasan Ayberk Altuğ, Ahmet Ferhat Mısır, Barış Oral</i>
08:50-09:00	<b>OP-03</b> Experimental Use of Autogenous Bone Grafts as an Alternative Method for Bone Plates in Treatment of Mandibular Fracture <i>Maha Mohamed Sallam, Hanan Mohamed Shokier, Ghada Ahmed Khalifa, Ahmed Mohamed Fawzy</i>	<b>OP-09</b> Evaluation of sinus floor elevation methods and different grafting materials: A Retrospective study of 143 patients <i>Yusuf Buğra Özdemir, Esin Demir, Gülsün Yıldırım, Doğan Dolanmaz</i>	<b>OP-15</b> Closure of oroantral fistulae using auricular cartilage: A modification of the technique by retroauricular approach <i>Erol Cansız, Sabri Cemil İşler, Zerrin Çebi</i>
09:00-09:10	<b>OP-04</b> Orbital Volumetric Study in Craniofacial Trauma <i>Abdelhameed Mohamed Eissa, Ayman M Esmail, Mageed M Amin, Fouad M Ghareeb</i>	<b>OP-10</b> Panoramic Radiographic Findings For Maxillary Complete Denture Opposed to Implant-Supported Mandibular Overdenture <i>Seçil Karadeniz, Sadullah Üçtaşlı</i>	<b>OP-16</b> The effects of operation time and tooth position on patient anxiety in impacted third molar surgery <i>Sema Nur Öktem, İsmail Doruk Koçyiğit, Umut Tekin, Hakan H. Tüz, Dilara Emikoğlu</i>



09:10-09:20	<b>OP-05</b> Three dimensional bone mineral density evaluation of autogenous iliac bone grafts after ridge augmentation:a microcomputed tomography analysis <i>Berfin Karatas, Arda Büyüksungur, Selçuk Basa</i>	<b>OP-11</b> Tunnel Approach for Intraoral Onlay Bone Augmentation: Preliminary Surgical Results <i>Nur Altıparmak, Sina Uçkan</i>	<b>OP-17</b> Versatility of tongue flaps in oral cavity reconstruction <i>Fawzy Tantawy Abo Derra</i>
09:20-09:30	<b>OP-06</b> Combined treatment of internal derangement and myofascial pain dysfunction: A clinical protocol <i>Mohammed Ahmed Elsholkamy, Wael Mohamed Talaat, Rehab Tarek Elsharkawy</i>	<b>OP-12</b> Effects of Leukocyte and Platelet-Rich Fibrin (L-PRF) on Osseointegration of Titanium Implants in Rabbits: Histomorphometric Study <i>Serap Gülsever, Elif Öncü, Burak Bayram, Emine Elif Alaaddinoğlu</i>	<b>OP-18</b> Effect of platelet rich plasma (PRP) on fibrocartilage, cartilage and bone repair in temporomandibular joint <i>Nükheth Kütük, Burcu Baş, Emrah Soylu, Zeynep Burçin Gönen, Canay Yılmaz, Saim Özdamar, Esra Balcıoğlu, Alper Alkan</i>
09:30-10:00	<b>COFFEE BREAK</b>		
10:00-12:05	<b>PLENARY SESSION 2 – TRAUMA</b> MAIN HALL		<b>Chairpersons:</b> Joseph Van Sickels, Vedran Uglešic, Yavuz Sinan Aydıntuğ
10:00-10:25	"Orbital Reconstruction"		<b>Ilanko Ilankovan</b>
10:25-10:50	"Endoscopic Assisted Treatment Of Mandibular Subcondylar Fracture"		<b>Mohammad Bayat</b>
10:50-11:15	"Facial Reanimation by Temporalis Muscle"		<b>Fouad Ghareeb</b>
11:15-11:40	"Patterns of Zygomatic Fractures. Limited vs. Extended Approaches"		<b>Timuçin Baykul</b>
11:40-12:05	"Simulation and CAD/CAM Techniques in The Reconstruction of Jaw Defects"		<b>Peter Kessler</b>
12:05-13:30	<b>LUNCH</b>		
12:05-13:30	<b>LUNCH AND LEARN SESSION 1</b> ROOM A Chairperson: Özgür Pektaş	<b>LUNCH AND LEARN SESSION 2</b> ROOM B Chairperson: Altan Varol	
12:05-13:30	"Ortognathic Surgery – Step Wise Approach from Diagnosis to Postoperative Care" <b>Piet Haers</b>	"Step by Step Fibular Flap Reconstruction: Harvest and Anastomotic Technique" <b>Nick Kalavrezos</b>	
13:30-15:10	<b>PLENARY SESSION 3 – TMJ</b> MAIN HALL		<b>Chairpersons:</b> Nabil Samman, Reha Ş. Kişnişci, Sevtap Günbay
13:30-13:55	"Matrix Associated Autologous Chondrocyte Transplantation for Temporomandibular Joint Reconstruction"		<b>Gerhard Undt</b>
13:55-14:20	"Reconstruction of the TMJ using microvascular techniques and prosthetic devices"		<b>Gary Warburton</b>
14:20-14:45	"What, Which and When? - Reconstructive Options for the TMJ"		<b>Nadeem Saeed</b>
14:45-15:10	"Autogenous Abdominal Fat Grafting for Failed Alloplastic TMJ Reconstruction"		<b>Umut Tekin</b>
15:10-15:30	<b>COFFEE BREAK</b>		
15:30-17:30	<b>CORPORATE SESSION</b> HALL A	<b>AWARD WINNING INTERACTIVE QUESTIONNAIRE FOR RESIDENTS</b> HALL B	
15:30-17:30	"Award Winning Interactive Questionnaire for Residents" <b>Nick Kalavrezos, Michael Miloro, Doruk Koçyiğit</b>		
19:00	<b>DINNER</b>		



Friday, 31 <sup>st</sup> May 2013			
08:30-17:00	POSTER PRESENTATIONS		
08:30-17:00	EXHIBITION		
08:30-09:40	ORAL ABSTRACT SESSION 4	ORAL ABSTRACT SESSION 5	ORAL ABSTRACT SESSION 6
	<b>HALL A</b> Chairpersons: Gary Warburton, Ayşegül Mine Tüzüner Öncül, Osman Etöz	<b>HALL B</b> Chairpersons: Mine Cambazoğlu, Sinan Tozoğlu, Ümit Karaçaylı	<b>HALL C</b> Chairpersons: Alper Alkan, Metin Şençimen, Vugar A. Gurbanov
08:30-08:40	<b>OP-19</b> Evaluation of Prolotherapy at TMJ Dislocation in One Year Follow-Up Period <i>Fatih Taşkesen, Cem Üngör, Kerem Turgut Atasoy, Onur Yılmaz</i>	<b>OP-25</b> Sinus augmentation with platelet-rich fibrin in combination with bovine bone graft versus bovine bone graft in combination with collagen membrane <i>Nilüfer Bölükbaşı, Selim Ersanlı, Cansu Başeğmez, Nurullah Keklikoğlu, Tayfun Özdemir</i>	<b>OP-31</b> Clinical & Radiographic assessment of the outcome of autogenous chin graft for augmentation of deficient maxillary bone <i>Mohammed Ahmed Elsholkamy, Tamer Abdelbari Hamed</i>
08:40-08:50	<b>OP-20</b> Effects of Zoledronic Acid on Physiologic Bone Remodeling of Condylar Part of Tmj: A Preliminary Study In Rabbits <i>Ufuk Tatlı, Yakup Üstün, Mehmet Kürkçü, Mehmet Emre Benliday</i>	<b>OP-26</b> Influence of Caffeic Acid Phenyl Ester (CAPE) on Bone Defect. <i>Mahmut Koparal, Musa Can Uçan, Ulaş Alabalık, Serahim Serhat Atılgan, Ferhan Yaman</i>	<b>OP-32</b> Effect of Rifampin in Combination With Allogeneic, Alloplastic, and Heterogenous Bone Grafts on Bone Regeneration in Rat Tibial Bone Defects <i>Alper Kaya, Beyza Kaya, Ayfer Aktaş, Ela Tules Firat</i>
08:50-09:00	<b>OP-21</b> Condylar and Ramus Height of The Mandible in Temporomandibular Disorders: A Panoramic Radiograph Study <i>Fatma Şenses Kuşkaya, Hakan H. Tüz, Umur Tekin, Gökhan Gürsesli, İsmail Doruk Koçyigit, Fethi Atl</i>	<b>OP-27</b> Is Kryptonite Bone Cement an Alternative Graft Material in Sinus Lifting? A Histologic and Stereological Study <i>Seda Yılmaz, Bora Özden, Berrin Zuhul Altunkaynak, Burcu Baş, Gamze Yayla Altun</i>	<b>OP-33</b> Rehabilitation for Gunshot Defect of Mandible with Alveolar Distraction Osteogenesis and Implant Treatment <i>Ümit Karaçaylı, Mustafa Dağ, Emre Dikicier</i>
09:00-09:10	<b>OP-22</b> Efficacy of Botulinum Toxin Type-A (BTX-A) in Patients with Chronic Orofacial Pain <i>Zehra Yılmaz, Ferdousey Basit, Tara Renton</i>	<b>OP-28</b> Experimental Investigation on Effects of Platelet Rich Fibrin (PRF) for Bone Defects Healing; Histomorphometrical Evaluation <i>Neslişül Niyaz Kökdere, Timuçin Baykul</i>	<b>OP-34</b> A Simple Solution for Vector Control in Vertical Alveolar Distraction Osteogenesis <i>İsmail Doruk Koçyigit, Hakan H. Tüz, Özkan Özgül, Fatih Mehmet Coskunes, Reha Ş. Kişnişci</i>
09:10-09:20	<b>OP-23</b> Evaluation of the therapeutic effectiveness of arthroscopic lysis and lavage on TMJ <i>Kerem Turgut Atasoy, Cem Üngör, Fatih Taşkesen, Figen Çizmeçi Şenel, Çağışan Pirpir</i>	<b>OP-29</b> Effect of zoledronic acid on defect repairment in osteoporotic rat models: stereological evaluation <i>Akif Türer, İsmail Şener, Mehmet Cihan Bereket, Berrin Zuhul Altunkaynak</i>	<b>OP-35</b> Periosteal distraction using a new distraction device; an in vivo study in rabbits <i>Onur Evren Kahraman, Özgür Erdoğan</i>
09:20-09:30	<b>OP-24</b> Comparative evaluation of arthrocentesis on postmenopausal women <i>Burak Cezairli, Cem Üngör, Fatih Taşkesen, Kerem Turgut Atasoy, Figen Çizmeçi Şenel</i>	<b>OP-30</b> An experimental investigation of locally applied rifamycin effects on release of Bone Morphogenetic Protein and new bone formation <i>Emin Ün, İlker Özeç, Hasan Esen, Mustafa Cihat Avunduk</i>	<b>OP-36</b> Clinical Manifestations and Surgical Treatment of Craniosynostosis in Mosul City – Iraq (2007 – 2012) <i>Ali Salim Mahmood</i>
09:30-09:40		<b>OP-56</b> Implementation of Lefort I “M” Osteotomy for Maxillary Inferior Repositioning <i>Alanur Ciftci, Mustan Barış Sivri, Sohrab Popal, Gökhan Göçmen, Elif Özcan, Ahmet Hüseyin Acar, Selçuk Basa, Altan Varol</i>	<b>OP-37</b> Computer aided and navigated maxillofacial surgery in complex cases <i>Ahmad Qasem, Roman Pfortner, Christopher Mohr</i>
09:40-10:00	COFFEE BREAK		
10:00-12:05	PLENARY SESSION 4 – PATHOLOGY MAIN HALL		Chairpersons: Ilanko Ilankovan, Fouad Ghareeb, Hakkı Tanyeri
10:00-10:25	“Clinical Features, Pathogenesis and Treatment of Bisphosphonate-Related Osteonecrosis of the Jaw”		Sven Otto
10:25-10:50	“Impact of Compromised Bone Healing on Oral Rehabilitation”		Jeroen Fennis
10:50-11:15	“Managements of Periorbital and Orbital Tumors”		Raja Kummoona
11:15-11:40	“Surgery for Vascular Lesions of the Head and Neck”		Sanjiv Nair
11:40-12:05	“Maxillofacial Osteomyelitis an Old Problem With Recent High Incidence, What Happen?”		Fawzy Tantawy
12:05-13:30	LUNCH		



12:05-13:30	<b>LUNCH AND LEARN SESSION 3</b> ROOM A Chairperson: Erdem Kılıç	<b>LUNCH AND LEARN SESSION 4</b> ROOM B Chairperson: Enis Redzep
12:05-13:30	"Distraction Osteogenesis for Jaw Discrepancies, Experience with Both the Maxilla and Mandible" Joseph Van Sickels	"Pitfalls in Cleft Repair" Nabil Samman
13:30-15:10	<b>PLENARY SESSION 5 – ORTHOGNATHIC SURGERY</b> MAIN HALL	Chairpersons: Nadeem Saeed, Sven Otto, Nedim Özer
13:30-13:55	"Approach to Orthognathic Planning-Surgeon's Side"	David Richardson
13:55-14:20	"Approach to Orthognathic Planning-Orthodontist's Side"	Tim Morris
14:20-14:45	"3D Orthognathic Surgery"	Michael Miloro
14:45-15:10	"Differential Diagnosis of Obstructive Sleep Apnea and Management by Skeletal Surgery"	Reha Ş. Kışnişci
15:10-15:30	<b>COFFEE BREAK</b>	
15:30-17:10	<b>PLENARY SESSION 6 – ORTHOGNATHIC SURGERY</b> MAIN HALL	Chairpersons: Michael Miloro, Fawzy Tantavy, Sina Uçkan
15:30-15:55	"A to Z About Intra Oral Vertical Ramus Osteotomy"	Ali Hossein Mesgarzadeh
15:55-16:20	"Management of Complications with Orthognathic Surgery with Emphasis on the Class II Patient"	Joseph Van Sickels
16:20-16:45	"'Surgery First' Approach in Orthognathic Treatment Planning"	Tülin Taner
16:45-17:10	"Computer Based Visual Treatment Objectives in Orthognathic Surgery"	Özgür Pektaş
19:00	<b>DINNER</b>	



Saturday, 1 <sup>st</sup> June 2013			
08:30-17:00	POSTER PRESENTATIONS		
08:30-17:00	EXHIBITION		
08:30-09:30	ORAL ABSTRACT SESSION 7	ORAL ABSTRACT SESSION 8	ORAL ABSTRACT SESSION 9
	<b>HALL A</b> Chairpersons: Ümit Ertaş, Gülsün Yıldırım, Zehra Yılmaz	<b>HALL B</b> Chairpersons: Meltem Koray, Bora Özden, Maged M. Amin	<b>HALL C</b> Chairpersons: Mehmet Kürkcü, Fawzy Tantawy, Abdelhameed M. Eissa
08:30-08:40	<u>OP-38</u> Splint Fabrication and Basics of 3D orthognathic Case Plans <i>Barış Ünlü</i>	<u>OP-44</u> Using of intraoperative C–Arm digital radiography for removing of lost orthodontic bracket during orthognathic surgery: Report of a rare challenging case <i>Ali Hossein Mesgarzadeh</i>	<u>OP-50</u> The application of Ozonotherapy in the Treatment of salivary gland chronic diseases <i>Vuqar Asif Gurbanov, Yunus Emiraslan Yusubov, Sabrin Ali Azim</i>
08:40-08:50	<u>OP-39</u> Perioperative Rare and Common Complications of Orthognathic Surgeries <i>Tuba Develi, Sıdika Sinem Soydan, Serap Gülsever, Özgür Pektaş, Burak Bayram, Sina Uçkan</i>	<u>OP-45</u> Design and Production of a Novel Computer Assisted, Patient Specific Sagittal Split Osteotomy Guide and Soft Tissue Retractor <i>Erol Cansız, Yunus Ziya Arslan, Fatih Turan, Berkem Atalay</i>	<u>OP-51</u> Management of central giant cell lesions of the jaws <i>Saeed Nezafati, Javad Yazdani</i>
08:50-09:00	<u>OP-40</u> The Influence of the Amount of Mandibular Movement and Type of the Surgical Procedure on Submental-Cervical Esthetics <i>Sıdika Sinem Soydan, Burak Bayram, Burcu Bayrak, Ayca Üstdal, Sina Uçkan</i>	<u>OP-46</u> Maxillary anterior segmental osteotomy: A meta analysis of the literature with the concurrent 16 cases <i>Ezher Hamza Davısoylu, Sina Uçkan, Ali Alper Pampu, Cem Üngör, Mehmet Birol Özel</i>	<u>OP-52</u> Treatment of Bisphosphonate Related Osteonecrosis of the Jaw: A case report <i>Esin Demir, Ceyhan Arıcıoğlu, Hanife Ataoğlu</i>
09:00-09:10	<u>OP-41</u> The Correction Of Mandibular Prognathism And Polidistema By Mandibular Corpus Osteotomy <i>Metin Şençimen, Sencer Secer, Hasan Ayberk Altuğ, Handan Altuğ, Gürkan Raşit Bayar, Aydın Gülses</i>	<u>OP-47</u> Orthognathic Surgery possibilities at patients without pre-orthodontic treatment <i>Şami Salihu, Osman Sejjija, Fellanza Gjinolli, Mergime Prekazi, Nijazi Heta, Arsim Kelmendi, Agreta Geci</i>	<u>OP-53</u> Can locally applied alkaline substances prevent the development of BRONJ?: Preliminary results of an experimental study <i>Ezher Hamza Davısoylu, Figen Çizmeçi Şenel, Cem Üngör, Fatih Taşkesen, Mine Kadioğlu Duman, Şafak Ersöz</i>
09:10-09:20	<u>OP-42</u> The Extent of Chin Ptosis and Lower Incisor Exposure Changes Following the Osseous Genioplasties <i>Secil Cubuk, Sıdika Soydan, Zafer Özgür Pektaş, Sina Uçkan</i>	<u>OP-48</u> Evaluation of the Benign Paroxysmal Positional Vertigo Following Le Fort I Osteotomy: Preliminary Study <i>Kağan Deniz, Sıdika Sinem Soydan, Ayça Özbal Koç, Levent N. Özluoğlu, Sina Uçkan</i>	<u>OP-54</u> A new and simple classification method for cleft lip & palate patients; Marmara Classification <i>Buket Coşkuner Gönül, Toros Alcan, Ahu Acar</i>
09:20-09:30	<u>OP-43</u> Alveolar Bone Grafting in Cleft Patients: Our Clinical Approach <i>Aysegül Mine Tüzüner Öncül, Merve Nur Kadioğlu, Özün Karaahmetoğlu, Abbascan Kortmaz</i>	<u>OP-49</u> Cone beam computed tomographic analysis of mandibular morphology in relation to sagittal split ramus osteotomy <i>Nükhet Kütük, Yıldray Şişman, Alper Alkan</i>	<u>OP-55</u> The Role Of Coronoidectomy in Temporomandibular Joint Ankylosis Cases <i>Elif Özcan, Gökhan Göçmen, Altan Varol, Selçuk Basa</i>
09:30-10:00	COFFEE BREAK		
10:00-12:05	PLENARY SESSION 7 – IMPLANTOLOGY MAIN HALL	Chairpersons: David Richardson, Jeroen Fennis, Tayfun Günbay	
10:00-10:25	"Mandibular Reconstruction for Successful Implant Rehabilitation in the Non Oncologic Patient "Potpourri of Techniques"		Howard Holmes
10:25-10:50	"Immediate Loading in Edentulous Jaws; Overdenture to Fixed Restorations"		Hasan Alkumru
10:50-11:15	"Improving Dental Implant Rehabilitation by Orthognathic Surgery"		Piet Haers
11:15-11:40	"Full Arch Mandibular Implant Reconstruction"		Vítomir S. Konstantinovic
11:40-12:05	"Effect of Augmentation Techniques on the Success of Implant Surgery"		Sina Uçkan
12:05-13:30	LUNCH		



12:00-13:30	LUNCH AND LEARN SESSION 5 ROOM A Chairperson: Ercüment Önder	LUNCH AND LEARN SESSION 6 ROOM B Chairperson: Ülkem Cilasun
	"Site Development Strategies for Dental Implants" Michael Miloro	"Principles of Facial Plastic Surgery" Vedran Uglesic
13:30-14:45	PLENARY SESSION 8 – CLP& CRANIOFACIAL MAIN HALL	Chairpersons: Raja Kummoona, Peter Kessler, Serpil Altundoğan
13:30-13:55	"Management of Speech Problems in Cleft Lip and Palate with Emphasis on Surgical Aspects"	Nabil Samman
13:55-14:20	"Cleft Palate and Speech Therapy"	Maviş Emel Kayıkçı
14:20-14:45	"Nasal Clefts: How to Diminish a Lifelong Deformity?"	Fouad Ghareeb
15:30-16:30	EXECUTIVE BOARD MEETING Meeting Room	HANDS-ON COURSE – Orthognathic Planning HALL A
	EXECUTIVE BOARD MEETING	"Hands on" Orthognathic Treatment Planning David Richardson, Tim Morris
20:30	CLOSING PARTY	

Sunday, 2 <sup>nd</sup> June 2013		
09:00-11:30	POST-CONFERENCE COURSE HALL A	
	"Bone Graft Harvesting in Maxillofacial Surgery"	Selçuk Basa, Altan Varol, Peter Kessler
12:00	CHECK-OUT	



**TEMPOROMANDIBULAR JOINT ARTHROSCOPY COURSE**  
*Hands-on Cadaver Workshop*

**Course Chairman**  
*Reha Kışnişci, Ankara*

**International Faculty**  
*Gerhard Undt, Vienna*  
*Nadeem Saeed, Oxford*

**Local Faculty**  
*Feza Korkusuz, Ankara*  
*Hakan H. Tüz, Ankara*  
*Doğan Dolanmaz, Konya*

**Workshop Assistants**  
*Özkan Özkaynak, Antalya*  
*Utku Dede, Istanbul*  
*Fethi Atıl, Kırıkkale*  
*Timur Songör, Ankara*  
*Cem Üngör, Trabzon*  
*Fatih Coşkunes, Kocaeli*  
*Serkan Dadakoğlu, Ankara*



## PROGRAM

29 Mayıs 2013

- 08:45 - 09:00 **Welcome, Introductory Remarks**  
*Reha Kişnişci*
- **Didactic Session Module**
- 09:00 - 09:20 **General and Topographic TMJ Anatomy**  
*Nadeem Saeed*
- 09:20 - 09:40 **Arthroscopic anatomy**  
*Nadeem Saeed*
- 9:40 - 10:00 **Progress in basic sciences translational to clinical case**  
*Feza Korkusuz*
- 10:00 - 10:20 **Imaging modalities and relevance in intra-articular derangements**  
*Doğan Dolanmaz*
- 10.20 - 10.40 **TMJ Biomechanics, Synovial Fluid**  
*Hakan H. Tüz*
- 10:40 - 11:00 **Artrocentesis**  
*Reha Kişnişci*
- 11:00 - 11:20 **Coffee / Tea Break**
- 11:20 - 11:40 **Patient preparation, basic operative principles**  
*Reha Kişnişci*
- 11:40 - 12:00 **Indications of Arthroscopic Surgery**  
*Gerhard Undt*
- 12:00 - 12:20 **Arthroscopic surgical techniques**  
*Gerhard Undt*
- 12:20 - 12:40 **Avoiding Complications of Arthroscopy**  
*Gerhard Undt*
- 12:40 - 13:15 **Lunch Break**
- **Cadaver Workshop Module**
- 13:15 - 14:30 **Paralel Session I**  
**Group A - Hands-On TMJ Arthroscopy Cadaver Workshop**  
**Group B - Case Discussions / Open Surgical Approaches to Cadaver TMJ**
- 14:30 - 15:45 **Paralel Session II**  
**Group B - Hands-On Cadaver Workshop**  
**Group A - Case Discussions / Open Surgical Approaches to Cadaver TMJ**
- 15:45 - 16:00 **Coffee / Tea Break**
- 16:00 - 16:20 **Decision making against arthroscopy and indications for open surgery**  
*Nadeem Saeed*
- 16:20 - 16:30 **Closing Remarks and End of Course**  
*Reha Kişnişci*



29 Mayıs 2013

PROGRAM

08:00-09:00	Wellness Initiative Program Açılış
09:00-09:30	Öğle Yemeği
09:30-10:00	Genel Kurul Toplantısı
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**PLENARY SESSION ABSTRACTS**







## **PRINCIPLES OF MANAGEMENT OF ORAL CANCER: FROM DIAGNOSIS TO TREATMENT**

Nick Kalavrezos, London, UK

Head and Neck Cancer is the sixth most common cancer globally and oral cancer is the most common form of head and neck malignancies. This presentation will concentrate on the main diagnostic protocols and the pearls and pitfalls in modern diagnostics of oral cancer, while a protocol of treatment will be discussed. Surgery remains the mainstay of treatment for oral cancer and this presentation will encompass elements of the ablative and reconstructive parts of the treatment in oral cancer.

## **MANDIBLE RECONSTRUCTION WITH FREE VASCULARISED BONE GRAFTS**

Vedran Uglesic, Zagreb, Croatia

The mandible assists in verbalization, oral competence, mastication, deglutination, airway support, and is a major aesthetic highlight of the face. Our reconstructive goal is to redefine the preoperative functions and facial aesthetics and return patient to a normal family and social life. In presentation indications and contraindications for microvascular reconstruction and surgical technique will be discussed. Characteristics of ideal microvascular flap will be outlined and composite forearm flap, DCIA, scapula and fibula flap will be scored according to these characteristics. The fibula flap seems to be the first choice for the mandible reconstruction followed by DCIA, scapula and forearm flap.

## **RECONSTRUCTING THE MAXILLA, ORBIT AND NOSE**

James Brown, Liverpool, UK

These anatomical areas are interconnected both by their position and by the controversies over the best ways to reconstruct and rehabilitate these defects. This is the midface of the patient and the main concern is a reasonable aesthetic outcome rather than function. Having said that there are important functional roles in terms of the airway and sense of smell for the nose, binocular vision and the restoration of chewing for the maxilla.

I will explain my philosophy in the management of this area and show cases reconstructed immediately and some in which secondary reconstruction has been attempted. In each area there is a role for a prosthesis either as a definitive treatment or to enhance a reconstruction such as an orbit. There is a need for a team approach with due respect for each of the methods available to be able to choose the most appropriate option for the patient in terms of their expectation, prognosis and return to a reasonable quality of life.

## **ORBITAL RECONSTRUCTION**

Ilanko Ilankovan, UK

Orbit is the anatomical structure of the face which requires symmetry and is closely linked to the forehead, nasal complex, maxilla and the malar projection. Reconstruction needs are as a result of congenital and acquired problems. Trauma is the commonest acquired problem, needing orbital reconstruction.

We describe the anatomy of the area, deformity caused by congenital and ageing process, investigative tools, clinical presentation and management of congenital and acquired orbital problems. We shall also describe and discuss the reconstructive materials used in orbital reconstruction.



### **ENDOSCOPIC ASSISTED TREATMENT OF MANDIBULAR SUBCONDYLAR FRACTURE**

Mohammad Bayat, Iran

One of the most challenging subjects in maxillofacial trauma cases is mandibular sub condylar fracture. For many years closed treatment was the choice by surgeons and open treatment used rare, except in special cases that indicated.

In recent years there is more relish to do open surgery by surgeons because it is prevent the future problems such as malocclusion, mandibular deviation, mouth opening limitation and ankylosis.

Surgeons try to perform open approach but two big problems limited them.

1- Presence of facial nerve in field of operation

2- Scar formation on facial skin

Intra oral approach aided with endoscope that used recently is suitable alternative to resolve mentioned difficulties.

This technique more complicated and needs more expensive equipments and experiences.

In condylar fractures that upper part is small and intraoral approach to that sometimes is impossible and in situations that facilities are not available the closed treatment is the choice and has its partials.

In our cases the results was good and in long term is successful.

### **FACIAL REANIMATION BY TEMPORALIS MUSCLE**

Fouad Ghareeb, Cairo, Egypt

Facial paralysis following Bell s palsy and tumor extirpation is a very devastating problem leading to facial distortion and patient segregation from the community. Immediate or early treatment is necessary to prevent facial muscle atrophy, a condition that defies later treatment. A period of 6 months is given as the maximum time to achieve satisfactory nerve repair or using other methods to activate the muscles, unfortunately these is not be possible in many cases.

The last resort is facial reanimation by using extrinsic muscles like the temporalis, the masseter and free muscle transfer.

The presenter will demonstrate his experience in facial reanimation by the temporalis muscle to achieve satisfactory results.

### **PATTERNS OF ZYGOMATIC FRACTURES. LIMITED VS. EXTENDED APPROACHES**

Timuçin Baykul

Zygoma articulates with frontal, sphenoid, temporal and maxillary bones and contributes significantly to the strength and stability of the midface. The forward projection of the zygoma causes frequent injuries. The most common causes reported of the zygomatic complex fractures are assault and maxillofacial traumas like traffic accidents. In the past, the classification of the zygomatic fractures was used to predict which fractures would remain stable after reduction and which of them would require open reduction and some method of fixation. With the advent of CT scans, fracture patterns are classified by anatomic location and by the pattern of segmentation and displacement seen on CT scans. Management of zygomatic complex and arch fractures depends on the degree of displacement and resultant functional deficits. Open reduction with wide surgical access and use of multiple fixation points have been very satisfactory in preventing post-operative facial asymmetry and enophthalmos in zygomatic complex injuries. closed reduction should not be neglected as a quick and effective means of treating minimally displaced type A or isolated arch fractures.



**SIMULATION AND CAD/CAM TECHNIQUES IN THE RECONSTRUCTION OF JAW DEFECTS**

Peter Kessler, Netherlands

CAD/CAM techniques are prerequisites today in cranio-maxillofacial reconstructive surgery. Maxillary and orbital floor reconstruction with micro-vascular grafts, as well as the planning of mandibular reconstructions are the main fields of application. Pre-bent plates, customized implants and individualized titanium meshes are part of patient-focused individualized therapy concepts. The operation can be planned virtually; templates are made by rapid prototyping. The postoperative computer tomography scans show that the planned positions are achieved correctly. This presentation illustrates the feasibility of computer aided design/computer aided manufacturing (CAD/CAM) in reconstructive surgery cranio-maxillofacial surgery today.

**MATRIX ASSOCIATED AUTOLOGOUS CHONDROCYTE TRANSPLANTATION FOR TEMPOROMANDIBULAR JOINT RECONSTRUCTION**

Gerhard Undt, Vienna, Austria

**Objectives:** Matrix associated transplantation of autologous chondrocytes was described by Brittberg et al. in 1994. Nowadays, the method is widely used for reconstruction of circumscribed cartilage defects in knee joints, but also in smaller joints of the body. We describe the use of this method in reconstructive temporomandibular joint (TMJ) surgery in case of bony ankylosis and severe osteoarthritis.

**Materials and methods:** From September 2003 to May 2009, ten joints in seven patients were reconstructed according to the new method. The patient collective consisted of one man and six women. Their ages at time of surgery ranged between 27 and 66 years (mean 47 years). The pre-operative maximum inter-incisal distance ranged from 9 to 33 mm (mean 11 mm). Three to five weeks prior to the surgical relief of ankylosis, rib cartilage, which is more similar to fibrocartilage than other hyaline cartilage, was harvested from the patient's 6th or 7th rib. In the laboratory, the cartilage fragments were digested and the chondrocytes cultivated in autologous blood serum for three to five weeks. After 1-2 cell passages, the total number of chondrocytes ranged from 37 to 104 million. Following open relief of the bony ankylosis and / or contouring of the joint surfaces, the suspension of autologous chondrocytes delivered to a collagen scaffold pre-shaped to cover the condylar head or the articular fossa at the skull base exactly. These constructs were attached to the condyle and the zygomatic arch with resorbable pins. Finally a 0.75 mm silastic sheet was positioned between the new articulating surfaces and fixed to the zygomatic arch with titanium pins. 120 to 140 days later the silastic membrane was removed and biopsies of the joint surfaces were taken under endoscopic control.

**Results:** One patient was lost to follow-up. In the remaining patients, the maximum inter-incisal distance increased significantly following surgery and remained stable at the two years control (mean 33, min. 25, max. 49 mm). For three of the patients, clinical eight-year results are presented. Histological examination of the biopsies taken from patients younger than 60 years at the time of surgery showed good differentiation of the tissues toward regular fibrocartilage 4 months after surgery.

**Conclusion:** Because of the excellent clinical two-year results and the histological findings at four months after primary surgery, we recommend the method for reconstruction of the temporomandibular joint in case of ankylosis and severe osteoarthritis.

**RECONSTRUCTION OF THE TMJ USING MICROVASCULAR TECHNIQUES AND PROSTHETIC DEVICES**

Gary Warburton, Baltimore, USA

Replacement and reconstruction of the temporomandibular joint (TMJ) can be accomplished using a variety of techniques, including prosthetic and microvascular techniques. There has been significant advancements in computer and virtual planning technology in recent years that have applications in Oral and Maxillofacial surgery. This presentation will review the role of virtual planning for custom alloplastic reconstruction and how computer planning and guided surgery can be applied in microvascular reconstructions of the TMJ.



### WHAT, WHICH AND WHEN - RECONSTRUCTIVE OPTIONS FOR THE TMJ

Nadeem Saeed, UK

The aims of TMJ reconstruction are well established but the ideal method of treatment for any individual patient is still controversial. A number of variables can influence the decision making process including disease processes, previous reconstructions, surgeon training and preference. Costs can also impact on any final treatment planning and in children the fourth dimension of growth is frequently problematic. This talk will review the current thought processes used in Oxford to customise a reconstruction option for any individual patient.

### AUTOGENOUS ABDOMINAL FAT GRAFTING FOR FAILED ALLOPLASTIC TMJ RECONSTRUCTION

Umut Tekin, Turkey

A variety of alloplastic materials have been used to reconstruct the human temporomandibular joint. Alloplastic implants such as Silicone rubber and Proplast- Teflon interpositional implants (PTIPI) and autogenous grafts, such as temporalis fascia, ear cartilage, dermis graft, fat graft and abdominal dermis-fat graft were used to replace the articular disc following TMJ discectomy procedures. During the past several years management of failed alloplastic TMJ reconstruction has progressed from a subject for discussion. Various protocols for the management of failed alloplastic TMJ disc implants were described in literature. Abdominal fat harvest and augmentation to the maxillofacial region is a relatively inexpensive, safe, and readily available procedure. Autologous free fat grafts prevent scar formation by acting as an effective haemostatic agent and space filler that prevents the accumulation of blood and serum, which would otherwise turn into scar or bone. The aim of this study to evaluate long-term outcome of autogenous abdominal fat graft placement following major alloplastic temporomandibular joint (TMJ) implant removal. Long-term clinical follow-up of 4 patients where fat graft was only surgical treatment after removal of failed alloplastic TMJ implant. CT scans were available long-term on 3 of 4 patients. Study showed long-term (average 4.7 years) clinical success including normal jaw and dental function. Long-term CT scan (average 5 years) documented fat graft retention in 3 of 4 patients. Autogenous fat graft placement alone following major TMJ alloplastic removal provides excellent long-term outcome.

### CLINICAL FEATURES, PATHOGENESIS AND TREATMENT OF BISPHOSPHONATE-RELATED OSTEONECROSIS OF THE JAW

Sven Otto, Munich, Germany

**Background:** Osteonecrosis of the jaw (ONJ) is a serious side-effect that occurs especially in patients suffering from metastatic bone disease and receiving intravenous administrations of nitrogen-containing bisphosphonates. Despite a rising number of publications detailed investigations into clinical features, pathogenesis and treatment options remain sparse.

**Material and Methods:** Clinically, a single-centre study collated medical records (2003-2009) of all patients suffering from bisphosphonate related ONJ within the Department of Oral and Maxillofacial Surgery Ludwig-Maximilians-University of Munich, Germany. In total, 126 patients fulfilled the case criteria of ONJ and were examined clinically. Besides that the results of a prospective pilot study dealing with fluorescence guided bone resection is presented.

Experimentally, the effect of two N-BPs (zoledronate and ibandronate) and one non-N-BP (clodronate) on immortalized mesenchymal stem cells (SCP-1) was tested at different concentrations and different pH-values (7.4, 7.0, 6.7 and 6.3). Cell viability and activity was analyzed by WST-assay. Cell motility was investigated by means of scratch wound assays and visualized using time-lapse microscopy.

**Results:** The vast majority of bisphosphonate related ONJ cases occurred in patients suffering from malignant diseases (n=117, 92.8%), in particular breast cancer (n = 57; 45.2%), multiple myeloma (n = 37; 29.4%) and prostate cancer (n = 13; 10.3%), all received nitrogen containing bisphosphonates intravenously. ONJ was also diagnosed in 9 patients (7.1%) suffering from osteoporosis or rheumatoid arthritis. The most prevalent clinical feature was exposed necrotic bone (93.9%) in the oral cavity which was accompanied in 78.8% of cases by pain. A predilection for the mandible and in particular for molar and premolar regions in both jaws could be detected. Fluorescence-guided bone resection resulted in complete mucosal healing in 85% of



the cases included in the prospective pilot study (17/20 lesions).

Zoledronate and ibandronate showed a dose- and pH-dependent cellular toxicity. Increasing concentrations of both N-BPs and acidic milieu led to a significant decrease in cell viability and activity ( $p < 0.01$ ), with more pronounced effects for zoledronate. In contrast, equimolar concentrations of clodronate did not affect the cell survival or activity significantly, apart from the effect of pH reduction itself, which was also detectable in controls without bisphosphonates.

**Discussion:** The predilection for mandibular molar and premolar regions, and the infectious conditions that often precede the onset of ONJ support recent pathogenesis theories stating that local inflammation and associated pH-changes may trigger the release and activation of nitrogen-containing bisphosphonates leading, ultimately resulting in necrosis. Fluorescence-guided bone resection is a promising and innovative tool for the treatment of bisphosphonate related osteonecrosis of the jaw.

### IMPACT OF COMPROMISED BONE HEALING ON ORAL REHABILITATION

Jeroen P.M. Fennis, Arnhem, Netherlands

- Head & neck radiotherapy or the administration of bisphosphonates may give rise to iatrogenic osteonecrosis of the jaws
- Pathofysiologic pathways differ entirely, as well as the therapeutic options.
- The possibility of surgical oral rehabilitation will be discussed
- Hyperbaric oxygen (HBO-) therapy may be an adjuvant therapy in irradiated jaws.
- Irrespective of HBO-therapy the risks for complications in implant therapy seem to increase with radiation dosages over 45 Gy.
- In patients treated with intravenous bisphosphonates, there is no place for elective surgery and all effort should be directed to secondary (and, if possible, primary) prevention of Bisphosphonate Related Osteonecrosis of the Jaws (BRONJ).
- Osteopetrosis may mimic BRONJ
- Osteoporosis in itself seems is no contra-indication for pre-prosthetic surgery
- For patients with a history of oral bisphosphonates, the risk for BRONJ seems to increase after 3 years of use.
- A 'drug holiday' may be an option to reverse the damage to the bone-remodelling process.
- Most patients are unaware of the possible side-effects of bisphosphonate treatment

### MANAGEMENTS OF PERIORBITAL AND ORBITAL TUMORS

Raja Kummoona, Baghdad, Iraq

Orbital cancer is a rare disease, tumors either benign and might be aggressive or malignant and some tumors reported by us as highly malignant and fatal.

Tumors reported consist of sixteen patients, nine female and 7 males, age ranged from nine months to 75 years and tumors types were squamous cell carcinoma, basal cell carcinoma, conjunctival squamous cell carcinoma, retinoblastoma, fibrosarcoma and ectopic mixed tumors in 2, 1,2,1,1 and one respectively in addition to eight patients with jaw lymphoma involving the orbit out of 24 patients were reported by us.

Eight patients were treated surgically with adjuvant DXT, while 8 patients of jaw lymphoma were treated with combination chemotherapy CHOP (Vincristine, Adriamycin, Cyclophosphamid, Methotroxat and Pridnisolone) and survival rate was very poor. Follow up from 1-5 years.

Surgery was constituted of complete excision of the orbital content (Exonerations) with or without partial orbitectomy in 4 patients and wide excision of the tumor in four cases. Reconstruction of the defect was accomplished by using various local flaps and temporalis muscle flap was used for augmenting the orbit. No complications were reported, survival rate was quiet good except for patients with jaw lymphoma with 91% mortality.

There is no single best method for reconstruction of peri orbital and orbital defects left after tumor resection and different flaps were applied for reconstruction had given satisfactory result related to the type and complexity of the deformity.

In this study temporalis muscle flap had proved to be versatile and highly reliable in terms of bulk and vascularity for blocking the orbit.

The aim of this study was to show our experience in managements of some difficult tumors with minimum surgical morbidity and deformity.



### **SURGERY FOR VASCULAR LESIONS OF THE HEAD AND NECK**

Sanjiv Nair, India

Vascular anomalies are amongst the most common congenital abnormalities observed in infants and children. Their occurrence in the head and neck region is a source of functional and aesthetic compromise. This presentation reviews the surgical management of 115 cases of vascular anomalies involving the head and neck area treated by the author between 1998 and 2009. It discusses the diagnostic aids, treatment protocol and the results obtained. A new classification based on the anatomical location and depth of the lesion has been proposed. This allows guidelines for surgical ablation of the vascular lesions. The complications encountered are discussed. The use of external carotid artery control as opposed to pre-surgical embolization has proved effective and the technique is described. The location and extent of a vascular malformation should dictate the preoperative investigations, surgical procedure and subsequent outcome.

### **MAXILLOFACIAL OSTEOMYELITIS AN OLD PROBLEM WITH RECENT HIGH INCIDENCE, WHAT HAPPEN?**

Fawzy Tantawy Al Sayed, Egypt

Osteomyelitis of the jaws was relatively common before the era of antibiotic therapy and improvement of medical and dental care. In pre antibiotic era the classical presentation of jaw osteomyelitis was usually started by acute onset of inflammation followed by chronic process with wide spread of bone necrosis and large sequester formation with intra and extra oral fistula and significant facial deformities. Recently with the introduction of antibiotics the acute phase often concealed without fully elimination of infection with long course of chronic phase associated with facial pain. The introduction of recent diagnostic modalities like CT scans and bone scintigraphy increases the chance of early detection.

The biological change of treatment policy in head and neck cancer increases as well the risk of osteochemiconcrosis and osteo radio necrosis of the jaws. Retrospective study done at the Oral and Maxillofacial Surgery Department Shebin Al Kom Teaching Hospital Egypt on 40 cases of jaw osteomyelitis presented with variety of causes and different clinical presentation according the etiology and general condition of the patients. The mortality and morbidity rates were consider and the protocol of treatment was customized according each patient condition. Further details will be discussed at presentation time.

### **APPROACH TO OTHOGNATHIC PLANNING-SURGEON'S SIDE**

David Richardson, UK

Combined Orthodontic and Orthognathic treatment for the correction of dentofacial anomalies is a complex management pathway. Patient satisfaction and successful treatment outcome is based on the correct diagnosis, evaluation of the skeletal base discrepancy and malocclusion, treatment planning and treatment execution.

This combined presentation will discuss the evaluation of the dentofacial anomalies, and timing of treatment. Alternative treatment strategies for patients presenting too early for definitive treatment will be discussed in order to improve the patient's malocclusion while awaiting their definitive orthognathic treatment. The planning process, and selection of the surgical procedure most appropriate to correction of the dento-facial anomaly will be discussed. The management of the pre-surgical orthodontic and orthognathic surgical treatment pathway will be outlined in an approach to gain the best correction and outcome for the patient's anomaly.

The presentation is aimed at the trainee and junior surgical and orthodontic resident.

The hands on course will consist of an interactive use of case records to put the theoretical principles into practice. The cases will demonstrate different dento-facial anomalies and malocclusions requiring treatment. The principles of planning and treatment selection will be developed. The outcome of these cases will be discussed along with some reflection on the treatment choice, outcome and possible improvements.



**APPROACH TO OTHOGNATHIC PLANNING-ORTHODONTIST'S SIDE**

Tim Morris, UK

Combined Orthodontic and Orthognathic treatment for the correction of dentofacial anomalies is a complex management pathway. Patient satisfaction and successful treatment outcome is based on the correct diagnosis, evaluation of the skeletal base discrepancy and malocclusion, treatment planning and treatment execution.

This combined presentation will discuss the evaluation of the dentofacial anomalies, and timing of treatment. Alternative treatment strategies for patients presenting too early for definitive treatment will be discussed in order to improve the patient's malocclusion while awaiting their definitive orthognathic treatment. The planning process, and selection of the surgical procedure most appropriate to correction of the dento-facial anomaly will be discussed. The management of the pre-surgical orthodontic and orthognathic surgical treatment pathway will be outlined in an approach to gain the best correction and outcome for the patient's anomaly.

The presentation is aimed at the trainee and junior surgical and orthodontic resident.

The hands on course will consist of an interactive use of case records to put the theoretical principles into practice. The cases will demonstrate different dento-facial anomalies and malocclusions requiring treatment. The principles of planning and treatment selection will be developed. The outcome of these cases will be discussed along with some reflection on the treatment choice, outcome and possible improvements.

**3D ORTHOGNATHIC SURGERY**

Michael Miloro, Chicago, USA

Recent advances in 3-dimensional image computing for diagnosis and treatment planning for orthognathic surgery have improved the accuracy and precision in overall treatment outcomes, with the elimination of several database variables and inaccuracies. This process requires 3D patient imaging and a computer software program that integrates all components of our current orthognathic database. Virtual surgical treatment is performed in the computer environment which allows 3D assessment of hard and soft tissue changes and the ability to view various treatment schemes in real-time, and to recognize expected surgical movements and interferences prior to the actual surgery. Based upon the integrated data and computerized plan, surgical splints are fabricated that allow the virtual plan to be brought from the computer directly into the operating room. While this technology may be useful for routine orthognathic cases, it is most appropriately applied to complex congenital, developmental, or acquired deformities with a significant asymmetrical component to the dentoskeletal problem. This lecture will discuss some of the limitations of our current diagnostic and treatment techniques in orthognathic surgery, and describe the advantages and limitations of the computer planning process, including case examples.

**DIFFERENTIAL DIAGNOSIS OF OBSTRUCTIVE SLEEP APNEA AND MANAGEMENT BY SKELETAL SURGERY**

Reha Ş. Kişnişci, Turkey

Obstructive sleep apnea may pose serious health problems due to its adverse effects. Those risks related to obstructive sleep apnea that may be encountered have an impact on the quality of life including from day time sleeplessness to fatal consequences. Usually multiple sites are encountered in cases presenting with hypnoic or apneic episodes. Oropharyngeal and hypopharyngeal levels are the causative sites with higher incidences. This feature lends the problem to be diagnosed and treated properly where in severe and/or refractory cases maxillomandibular advancement might be carried out to improve posterior airway space. The ultimate aim of maxillomandibular advancement is to volumetrically increase retropharyngeal airway space. Synchronous maxillomandibular advancement is executed in the form of Le Forte I and bilateral sagittal split osteotomies unless preexisting malocclusion dictates otherwise with or without advancement genioplasty. Distraction osteogenesis for bilateral or unilateral mandibular advancement may also be planned for selected cases to improve obstructive sleep apnea. It has also been reported that midfacial distraction osteogenesis can improve posterior pharyngeal airway thus ameliorate the condition. Skeletal surgery aims to reposition related structures so that at a certain extend volumetric changes in the oropharyngeal airway would improve the problem. In addition and even more crucial by pulling the soft tissues most notably the tongue considered as the major contributing factors.



## **A TO Z ABOUT INTRA ORAL VERTICAL RAMUS OSTEOTOMY**

Ali Hossein Mesgarzadeh, Iran

Different type of mandibular osteotomy has been used for correction of dentofacial and mandibular deformities. Bilateral sagittal split osteotomy (BSSO), vertical mandibular body osteotomy, anterior subapical osteotomy, inverted L ramus osteotomy, bilateral step osteotomy and Intraoral vertical ramus osteotomy (IVRO). Every procedure have their own advantages and disadvantages.

Today the bilateral sagittal split ramus osteotomy, (BSSO) is the most commonly used procedure in the treatment of maxillofacial deformities such as prognathism or retrognathism. Due to the low incidence of inferior alveolar nerve injuries and Also patients tend to have fewer TMJ complaints after IVRO than BSSO and moreover simplicity of its technique, nowadays IVRO is a useful method for major asymmetric setback and correction of some mandibular deformities. On the other hand correction of dentofacial deformities by IVRO in patients with existing TMJ dysfunction and pain frequently resulted in improved function and resolution of symptoms. This was in sharp contrast with BSSO treated patients whom not frequently developed hypomobility and TMJ postoperative dysfunction so it is one of surgical modalities for TMJ dysfunction. During this lecture I try to present all aspects of IVRO and share complications and difficulties of technique with other colleagues.

## **MANAGEMENT OF COMPLICATIONS WITH ORTHOGNATHIC SURGERY: WITH EMPHASIS ON THE CLASS II PATIENT**

Joseph Van Sickels, Kentucky, USA

Orthognathic surgery is very technique sensitive and dependent on good planning. Yet even with good planning and execution, complications can occur. The etiology of the complication can be related to management of the patient during the preoperative, intraoperative or postoperative phases of therapy. Failure to obtain accurate records can result in poor esthetic outcomes especially when a two jaw surgery is planned. Large advancements of the mandible may require modifications of the osteotomy design or changes in the plate/s used when a sagittal split is done. In some cases it is advantageous to move the mandible first and then the maxilla. Changes in the way orthodontist prepare their patients for surgery can have intraoperative implications for the oral and maxillofacial surgeon.

There are many causes of adverse fractures that can occur with both the proximal and distal segments. Among them is the timing of the removal of third molars. The author will review some of the changing concepts with regards to the removal of third molars and management of adverse fractures that can occur with a bilateral sagittal split. Failure to achieve the desired occlusal results may be due to technical issues that happen at the time of surgery or later as a result of relapse. Relapse may occur during the first six weeks after surgery or it may be seen months or years later. Each type of relapse represents a challenge to treat. In this presentation the author will review his experiences with complications that arise in all phases of treatment. The focus will be on the treatment of the skeletal Class II patient emphasizing both prevention and management of these complications.

## **'SURGERY FIRST' APPROACH IN ORTHOGNATHIC TREATMENT PLANNING**

Tülin Taner, Turkey

Correction of severe skeletal problems in adulthood is implemented by orthognathic surgery. Orthognathic surgery or treatment refers combined use of orthodontic and surgical techniques for correction of dentofacial deformities. Treatment stages of this approach can be classified as; Diagnosis and treatment planning, Pre-operative orthodontic treatment, Cephalometric and model surgery, Surgical technique, Bimaxillary fixation, Post-operative orthodontic treatment and evaluation of results. The aims of pre-operative orthodontic treatment comprises correction of all kind of malalignments in dental arches, elimination of compensations in tooth inclinations, correction of maxillary constriction and co-ordination of upper and lower dental arches to ensure optimum final occlusion. Cephalometric surgery guides prediction of the profile changes and osteotomy planning. A simulation of surgery is made by model surgery and the amounts of jaw movement are determined on the basis of achieving an optimum final occlusion. In Surgery-First approach surgery is carried out immediately after initial diagnosis and treatment planning stage so orthodontic treatment is left after surgery. By using this approach, immediate correction of the profile improves quality of life of the patient considering rapid treatment expectations of many adults. Another advantage of this technique is empha-



sized to be the rapid orthodontic tooth movement due to increased blood flow after surgery. Determination of patients' expectations when orthognathic treatment is scheduled is an important consideration. The need for a pre-operative orthodontic treatment phase can be evaluated at the initial stage of orthognathic treatment. When Surgery First' approach is considered, prediction of surgically induced profile changes together with changes due to orthodontic tooth movement are inevitable in order to achieve optimum function and aesthetics.

#### **COMPUTER BASED VISUAL TREATMENT OBJECTIVES IN ORTHOGNATHIC SURGERY**

Özgür Pektaş, Turkey

The need for orthognathic surgery has increased recently, as more adult patients are seeking orthodontic treatment. Orthognathic surgery differs from other procedures of maxillofacial surgery procedures in a way that, the esthetic and psychosocial impact plays an important role in the patient perception of a successful treatment outcome. Therefore, a satisfying outcome for orthognathic surgery includes not only the decisive surgical technique and intermaxillary correction but also the accomplishment of the aesthetic goals that are successful to both patients and professionals. However, the concept of the ideal result is rather subjective and mainly determined by the consequence between the patient expectations and the actual result. Without a visual reference, it is hard for the patients to visualize the outcomes of the surgical procedures and to contribute to the treatment plan in the preoperative planning session. In this manner, visualized treatment objectives (VTO) are important predictive tools to interpret the patients' perspectives of esthetics and to give an acceptable preview of the result. The purpose of the present study was to evaluate the validity of current computer-assisted imaging systems in predicting the soft tissue response on the basis of real surgical outcomes following orthognathic surgery.

#### **MANDIBULAR RECONSTRUCTION FOR SUCCESSFUL IMPLANT REHABILITATION "THE POTPOURRI OF AVAILABLE TECHNIQUES"**

Howard Holmes, Toronto, Canada

Mandibular reconstruction is a common clinical procedure practiced by several surgical disciplines to afford the restoration of osseous tissue, lost or destroyed by trauma, infectious and oncologic ablation, or that is developmentally absent, or subjected to atrophy. Presently, autogenous bone of some type is the most common and successful graft system available. Techniques of reconstruction have and is continuously evolving, thus affording a variety of treatment options suitable to the specific needs of the different clinical circumstance that maybe encountered:

This lecture will provide a systematic approach to mandibular reconstruction to afford the necessary form and bulk necessary to provide oral rehabilitation with an implant born prosthesis based on a historical perspective of its evolution, clinical experience and evidence based medicine. The place for primary and secondary reconstruction will be reviewed and the various techniques of alloplastic, free non vascularized autogenous bone grafts (block, particulate marrow), composite and free microvascular grafts will be presented. As well the use of resorbable meshes and morphogenic proteins will be exemplified and discussed.

In the era of bioresorbables, 3-D imaging with model prototyping and tissue engineering traditional techniques have improved in their accuracy and efficiency and we may well be approaching a millennium of conventional graft procurement obsolescence.

#### **IMMEDIATE LOADING IN EDENTULOUS JAWS; OVERDENTURE TO FIXED RESTORATIONS**

Hasan Alkumru, Toronto, Canada

Dental prostheses have been constructed traditionally over the titanium implants allowing bone to heal for a couple of months depending on the bone quality. During this healing period implants have been left in the bone without functioning forces.

Recent clinical studies have indicated that implants do not have to be submerged during the extending healing phase. Minimizing the period between implant surgery and the prostheses placement is getting more and more popular.

The advantages of immediate loading are: Patients will be able to quickly resume oral functions and appearance and there will be no need for a second surgery.

In this conference; the advantages and disadvantages of immediate loading with full fixed prostheses and a conventional loading with overdentures will be discussed.



### **IMPROVING DENTAL IMPLANT REHABILITATION BY ORTHOGNATHIC SURGERY**

Piet Haers, London, UK

Dental Implant Rehabilitation is done in increasingly complex conditions and patients presenting with underlying dysgnathias and malocclusions of all types.

This is in particular the case in patients with congenitally missing teeth, older cleft patients with inadequate historic correction of the underlying maxillofacial deformity, sleep apnea patients and in some instances severe residual ridge resorption or traumatic bone loss

This lecture aims to show clinical examples and a treatment rationale for patients where oral rehabilitations should be based on a comprehensive diagnosis, taking into account a complete assessment of

- The maxillofacial skeleton
- The residual dento-alveolar anatomy
- All orofacial functions
- Facial aesthetics
- Medical condition

It is essential to listen to patient's needs and to inform them on all aspects of their condition so that treatment goals that are relevant for the patient's wellbeing can be defined.

As always in oral rehabilitation it is important to "plan backwards", starting with the desired restorative outcome, but with respect for improving overall oro-facial functioning if that is required. The next step consists in assuring adequate positioning of dental implants in a healthy environment with adequate bone volumes and soft tissues. In some instances that may require extensive bone grafting, orthognathic surgery or a combination of both. Treatment options, solutions and clinical examples will illustrate this lecture

### **FULL ARCH MANDIBULAR IMPLANT RECONSTRUCTION**

Vitomir S. Konstantinovic, Serbia

The aim of this lecture to present possibilities of full arch mandibular rehabilitation with implant supported prosthesis, particularly in cases with bone atrophy. The lecture include value of planning in oral implantology; 2. full arch implant rehabilitation in adequate bone dimensions; 3. Implantation in mandibular atrophy; Importance of adequate planning will be emphasized. 2D, CT / 3D Cone Beam planning and Stereolitography (biomodels) will be evaluated. Cases in late and immediate/early loading protocols with sufficient alveolar bone will be shown and discussed. Besides conventional bone augmentation procedures, basally osseointegrated implants (BOI) will be introduced and the following strategies for mandibular atrophy treatment will be presented: 1. interforaminal implant placement; 2. positioning the base plate below the bone canal of the mandibular nerve; 3. implant placement in the anterior part of the mandibular ramus; 4. placement of the basal implant above mandibular nerve. Treatment with conventional dental implants imposes no problem today if enough bone is present (10-12 mm vertical bone height and 5 mm horizontal bone width). Treatment outcome becomes unpredictable, lengthy and expensive, as soon as we involve bone augmentation procedures. Treatment the atrophied mandible with basal implants and splinting them through the bridge in an immediate loading protocol is a safe and effective procedure. Suitable devices for our strategies are: basal implants which are anchored cortically thus providing macro-retention. Generally, the use of basal implants avoids the risks and hassles of bone augmentation procedures and distractions.

### **EFFECT OF AUGMENTATION TECHNIQUES ON THE SUCCESS OF IMPLANT SURGERY**

Sina Uçkan, Turkey

In this presentation, success of alveolar ridge augmentation techniques including onlay bone grafting, internal & external sinus lifting and alveolar distraction procedures will be covered. Comparison of these surgical techniques including implant success rates will be evaluated.

This presentation will help participants to make their decisions when dealing with insufficient alveolar ridges and implant insertion.



### **MANAGEMENT OF SPEECH PROBLEMS IN CLEFT LIP AND PALATE WITH EMPHASIS ON SURGICAL ASPECTS**

Nabil Samman, Hong-Kong, China

Speech in repaired cleft lip and palate (CLP) patients is an important outcome of treatment and a determinant of quality of life. Investigation involves perceptual and objective assessment including pharyngoscopy. Surgical treatment is restricted for demonstrable cases of velopharyngeal incompetence and the outcomes of surgery are variable.

The presentation explores the process of investigation and management of speech problems, and a detailed description of the available surgical procedures, their indications and results will be given.

### **CLEFT PALATE AND SPEECH THERAPY**

Maviş Emel Kayıkçı, Turkey

Children with a history of cleft palate or submucous cleft are at risk for resonance and speech problems due to velopharyngeal dysfunction, structural and dental anomalies. Speech sound distortion can also occur due to other structural anomalies, including malocclusion. Whenever there are structural anomalies, speech can be affected by obligatory distortions or compensatory errors. When speech therapy is appropriate, the techniques involve methods to change articulation placement using standard articulation therapy principles.

### **NASAL CLEFTS: HOW TO DIMINISH A LIFELONG DEFORMITY?**

Fouad Ghareeb, Cairo, Egypt

Nasal clefts occur in both typical and atypical facial clefts (1 in 800 and 100000 births respectively), they need comprehensive treatment starting very early to prevent secondary permanent deformity, which is very difficult to correct in adult life. In this presentation the presenter will demonstrate how we can diminish these deformities by comprehensive and timed soft tissue and skeletal reconstruction of the nose in both the very common cleft lip noses and the rare Tessier facial deformities.

Also the presenter will demonstrate how the ineffective soft tissue treatment in infancy can compromise the normal growth of the nose in adulthood.







**ORAL PRESENTATIONS**



**OP-1****SURGICAL APPROACH TO COMPLICATED ORBITAL BONE FRACTURES**Fawzy Tantawy Abo Derra

Shebin al -Kom Teaching Hospital Egypt

Complicated orbital bone fractures are relatively increased and place the globe and associated structures at significant risk. Management of this kind of fractures is challenging and indicates thorough ophthalmic evaluation, precise imaging, expertise surgeons and contemporary surgical approaches. Retrospective study had been done to 98 patient's sustained different forms of complex orbital bone fractures (naso- orbital- ethmoidal fractures, fronto orbital fractures, zygomatico orbital fractures and entirely orbital fracture with rupture globe) these cases were surgically managed at the department of Oral and Maxillofacial Surgery, Shebin El Kom Teaching Hospital Egypt through the period of 2007 -2011 by team work. 83 patients were males and the rest were females with range of age (4 - 66 years) and mean age 32.5 years. The time lapsed from trauma to admission was ranged from 0 -42 days and some of them are incompletely treated at another Hospital, follow up was extended to more than one year. Each complicated case has a variety in clinical and radiographic findings so surgical approach was customized accordingly and different reconstructive materials were used. Further details about the results, the difficulty encountered and the obliged residual deformities which entail special protocol for management of these complicated cases will be explained and discussed during presentation.

**Keywords:** orbital fractures, complexed type, surgical approach, results

**OP-2****A NEW 'K' SHAPED MINIPLATE DESIGN FOR MANDIBLE ANGLE FRACTURES - MECHANICAL TEST STUDY'**Ismail Doruk Koçyiğit<sup>1</sup>, Suleyman Kaman<sup>1</sup>, Hakan H Tüz<sup>1</sup>, Berkay Tolga Suer<sup>2</sup>, Fethi Atıl<sup>1</sup>, Umut Tekin<sup>1</sup>

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2) GATA Haydarpaşa Training Hospital Dentistry Service Department of OMS, Istanbul, Turkey

The aim of this study was to evaluate the efficiency of new titanium miniplate design (Modified Champy) resistance against the mechanical forces in mandible angle fracture. Thirty fresh sheep hemimandibles were assigned into three major (n=10) and two subgroups (n=5) and sectioned in the mandibular angle region to simulate the fracture. The bone segments fixed by 6 holes 2.0mm non-compression titanium miniplate via champy method and 6 holes 2.0mm 'k' shaped titanium miniplate with 2.0mmX6mm monocortical screws. After fixation hemimandibles were loaded in compressive strength until a 4mm displacement or fixation loose occurred between the segments, vertically, horizontally and sagittally. 'k' shaped miniplate system (Modified Champy Technique) provided significantly greater resistance to displacement than conventional miniplate system (Champy technique) (p <.01).

**Keywords:** miniplate, angle, mandible, strength, force, fracture

**OP-3****EXPERIMENTAL USE OF AUTOGENOUS BONE GRAFTS AS AN ALTERNATIVE METHOD FOR BONE PLATES IN TREATMENT OF MANDIBULAR FRACTURE**Maha Mohamed Sallam<sup>1</sup>, Hanan Mohamed Shokier<sup>3</sup>, Ghada Ahmed Khalifa<sup>3</sup>, Ahmed Mohamed Fawzy<sup>2</sup><sup>1</sup>Research institute of ophthalmology<sup>2</sup>Abo El Reesh, Cairo University Hospitals, Ciaro<sup>3</sup>Faculty of Oral and Dental Medicine, Azhar University, Girl Branch

Mandibular fractures have a high incidence among facial bone fractures that necessitated prompt treatment. The use of autogenous graft as a fixation device for mandibular fracture may have an important role in bone



healing with accepted biological effect, and normal bone growth especially in pediatric patients. Moreover it avoids the side effect of both inter maxillary fixation (IMF) and bone plates. The aim of this study is to evaluate the use of autogenous bone graft for fixation of mandibular body fracture in dogs, both histologically and radiographically. Nine male mongrel dogs were included in this study. Fracture lines were induced in their mandibular bodies followed by their fixation using autogenous bone grafts harvested from fracture sites. The grafts were rotated by 90 degrees to the fracture lines and fixed with 4 bicortical titanium screws at their corners. The radiographic examination is performed at one, three and six weeks after surgery. The animals were sacrificed after six weeks of surgical procedures for histological examinations. Four dogs showed initial healing of induced fracture line with integration of the bone graft to the underlying lingual cortical plate through woven bone formation at six weeks postoperatively. While three animals exhibited failure of the graft to fix the fracture and two cases were excluded from the study due to fracture of the harvested graft during its fixation. It could be concluded that this technique could be an alternative treatment modality in fracture fixation but with favorable fracture with stable bony segment in order to achieve proper bone healing.

**Keywords:** autogenous, bone, grafts, mandibular, fracture

#### OP-4

#### ORBITAL VOLUMETRIC STUDY IN CRANIOFACIAL TRAUMA

Abdelhameed Mohamed Eissa<sup>1</sup>, Ayman M Esmail<sup>2</sup>, Maged M Amin<sup>2</sup>, Fouad M Ghareeb<sup>3</sup>

<sup>1</sup>As-Salam HO

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Craniofacial trauma involving the orbit causes variety of cosmetic and functional disturbances in the orbital region and the eye. Skeletal reduction and fixation are not the only treatment to reverse these problems as intra-orbital soft tissues including muscles, ligaments and fat play an important role in these problems. The presenter will discuss these problems with the aid of the volumetric measurements by accurate CT scan.

**Keywords:** volumetric, orbit, craniofacial

#### OP-5

#### THREE DIMENSIONAL BONE MINERAL DENSITY EVALUATION OF AUTOGENOUS ILIAC BONE GRAFTS AFTER RIDGE AUGMENTATION: A MICROCOMPUTED TOMOGRAPHY ANALYSIS

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Successful osseointegration of dental implants requires sufficient bone surrounding implant. (1) After tooth extraction the greatest loss of bone in the maxilla and mandible occurs. Horizontal bone resorption approach %50 of the ridge width at 12 months. (2) Reconstruction of the severely resorbed alveolar bones in preparation for endosseous dental implant placement can be one of the most challenging tasks presenting to the oral and maxillofacial surgeon. Although there is no ideal bone graft, autogenous bone remains the gold standard for alveolar reconstruction as it possesses the three classic qualities of the ideal graft, including osteoinduction, osteoconduction and osteogenesis. MicroCT ( $\mu$ CT) is a good non-destructive method to obtain three-dimensional structure of bone with maximum resolution. (2) The aim of this study is determine the relationships and differences (3D) bone mineral density (BMD), between autogenous bone grafts and their adjacent native bone. 24 human bone biopsy samples were obtained by trephine from the maxillary and mandibular anterior region after the augmentation with anterior ilium and posterior ilium. (12 posterior ilium, 12 anterior ilium). The samples were immediately stored on 10% neutral buffered formalin but samples were scanned after overnight immersion in physiological saline. The samples were



scanned with high resolution cone beam  $\mu$ CT system A high resolution microtomographic system (Bruker\_microCT 1172, Kontich, Belgium) to quantify the BMD and other parameters related to 3D microarchitectures of trabecular bone. All samples were scanned at 90 kV of source voltage and 112  $\mu$ A of source current with Al 0.5 mm filter. Samples were scanned for 360 degree with a rotation step of 0.4 degrees and pixel size was 6.6  $\mu$ m. Nrecon software (Nrecon v.1.4.4, Bruker\_microCT ) was used to reconstruct the raw data. Data analyzed with CTAn (CTAn, v.1.6.0, Bruker\_microCT ). Although the embryologic origin of the bone graft was suggested as a predictor resorption, this report presents ,as more recent studies focus on,emphasize the importance of the osseous microarchitecture.

**Keywords:** Micro-CT, BMD, Bone Graft, Dental implant, Anterior Ilium, Posterior Ilium

#### OP-6

### COMBINED TREATMENT OF INTERNAL DERANGEMENT AND MYOFASCIAL PAIN DYSFUNCTION: A CLINICAL PROTOCOL

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**OBJECTIVES:** This study aimed to formulate a clinical protocol to deal with cases complaining of myofascial pain dysfunction along with internal derangement and hence assessing the outcomes of such protocol.

**MATERIAL-METHODS:** Nineteen patients were recruited in this study from 2008 – 2012. They were complaining of pain and tenderness over the joint region and masseter and temporalis muscles besides limitation in mouth opening and jaw function. Clinical examination including pain and tenderness scores, absence or presence of clicking, and maximal mouth opening was performed for all patients. Radiographic examination and magnetic resonance imaging (MRI) for the affected joints were also performed. The patients received 35 units of Botox injection in each masseter muscle. The temporalis muscles received 15 units each. The injections were done under electromyographic guidance. The patients underwent arthrocentesis one week later for the affected joints followed by injection of 1 ml of sodium hyaluronate. The clinical parameters mentioned above were recorded pretreatment and 1 day post-treatment then at 1, 3, and 6 months post-treatment. The clinical parameters were analyzed statistically using one-way anova by SPSS.

**RESULTS:** The cases presented with 29 affected joints. The cases were 14 females and 5 males and the age ranged from 18- 51 with a mean of 29.16. The pain scores decreased significantly after treatment. The maximum mouth opening increased significantly also after treatment. There was a decrease in number of clicking joints. The tenderness scores for joint capsule and masseter and temporalis muscles were reduced significantly. Five patients reported return of symptoms 4 months post-treatment though less than the original scores. three of those patients were bruxers.

**CONCLUSION:** It was concluded that Botox injection followed by arthrocentesis and sodium hyaluronate injection proved efficacy in improving the clinical parameters and elimination of pain and tenderness.

**Keywords:** myofascial pain, Botox, internal derangement, arthrocentesis, sodium hyaluronate



**OP-7**

**MARGINAL BONE CHANGES AROUND PLATFORM SWITCHING IMPLANTS PLACED AT CRESTAL OR SUBCRESTAL POSITIONS: A 1- YEAR CLINICAL AND RADIOGRAPHIC EVALUATION**

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**AIM:** The aim of this study is to evaluate the effects of platform switching concept on peri-implant hard and soft tissues of implants placed crestal or sub-crestal.

**MATERIAL-METHOD:** Totally 55 patients and 126 implants included to the study. Platform switched implants placed on the bone level (control group) in one part of the jaw, in the other part of the jaw they are placed below the level of crestal bone (test group). Marginal bone level changes evaluated with the digital peri-apical radiographs which are taken at the beginning, 3, 6 and 12 months later from the function of the implants. Modified plaque index, gingival index, bleeding on probing and probing depths are evaluated to determine the periodontal health of the implants.

**RESULTS:** As a result, after 1 year of function marginal bone resorption was found in  $0,40 \pm 0,35$  mm in the control group and  $0,89 \pm 0,46$  mm in the test group. The marginal bone resorption is found higher statistically significant in the test group ( $p < 0,01$ ). In both test and control groups peri-implant soft tissues are found healthy.

**CONCLUSION:** As a conclusion, lower bone resorption may occur around platform switching implants. Within the limitation of this study, when platform switched implants placed more apically, more bone resorption occurs but without any esthetic problem. So when it is necessary to place the implants below the bone level, it may be useful to use platform switching implant design. There need to be done more studies about this subject.

**Keywords:** platform switching design, marginal bone resorption, peri-implant soft tissue health

**OP-8**

**USE OF ZYGOMATIC IMPLANTS FOR REHABILITATION OF SEVERE ATROPHIED POSTERIOR MAXILLA**

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**PURPOSE:** the aim of this presentation is to describe the indications, surgical techniques, complications, advantages, disadvantages, early and long term outcomes of zygomatic implants (ZIs) based on the literature and our own experience by three cases.

**MATERIAL-METHODS:** An electronic search was undertaken in January 2013. The titles and abstracts from these results ( $n=145$ ) were eliminated to identify studies which reports clinical series of ZIs and systematic review. In addition to this research we added our three cases to describe pre-surgical planning, surgical technique and early outcomes.

**RESULTS:** ZIs are indicated for the treatment of severe atrophied maxilla in combination with conventional implants which applied in the anterior region. This system is also a reliable treatment option for patients with maxillary resection due to a tumoral lesion, cleft palate, syndromes and systemic conditions which affect maxilla. Although chronic sinusitis is regarded as a contraindication, in literature, there are successful cases with this condition. Four different techniques is mentioned in literature; the classical approach, the sinus slot approach, the exteriorized approach and computer aided surgical navigation system approach. The studies showed high survival rates (96,7%) of the ZIs. Because of the complex anatomical structure of the area, complications are common but the risk may be reduced by 3d printed models and guides.

**DISCUSSION:** ZIs reduced the amount of bone grafting for those patients seeking a permanent solution with a minimum number of surgeries without compromising the long term success. Also the Immediate loading option allows patient to gain the esthetic look and function back with in the shortest time possible.

**Keywords:** zygomatic implants, atrophied maxilla, dental implants



**OP-9****EVALUATION OF SINUS FLOOR ELEVATION METHODS AND DIFFERENT GRAFTING MATERIALS: A RETROSPECTIVE STUDY OF 143 PATIENTS**

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Dental implants are a common treatment method for replacing missing teeth with predictable results. However implant rehabilitation of the edentulous or partly edentulous maxilla is often restricted by bone quantity especially in the posterior region thus involving sinus floor elevation and augmentation procedures. This was a retrospective study involving 143 patients and 185 sinus floor elevation procedures, 67 of them were internal lifting and 118 of them were external lifting procedures. Patients included to study who are treated at University of Selçuk Department of Oral and Maxillofacial Surgery, between October 2007 and July 2012. Based on medical records and radiographs, intraoperative and postoperative complications, sinus floor elevation methods, bone grafts and substitutes and subantral bone height improvement will be reported.

**Keywords:** grafting materials, retrospective, sinus lifting

**OP-10****PANORAMIC RADIOGRAPHIC FINDINGS FOR MAXILLARY COMPLETE DENTURE OPPOSED TO IMPLANT-SUPPORTED MANDIBULAR OVERDENTURE**

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Treatment of the edentulous mandible using a conventional complete denture, has caused problems such as lack of stability and retention. This could be mainly affected by the height and shape of the mandibular ridge. Advantages of two-implant-supported overdenture are; better stability and retention of the mandibular denture, better chewing function, reduces further bone resorption. The aim of this study was to evaluate edentulous patients with panoramic radiography who would receive maxillary complete denture opposed to two-implant-supported mandibular overdenture.

**Subjects and Methods:** In this study, 197 patients, ages ranged from 60 to 75 years, who have attended the University of Ankara, Faculty of Dentistry for routine dental treatment. A dental panoramic radiograph was taken from each patient using the same X-ray machine by a single operator. Measurements on panoramic images carried out with Planmeca Romexis 3.0.0.R software by one oral radiologist. Marginal bone levels were radiographically determined at two points at canine region. The number of re-mained root and/or impacted teeth on panoramic radiographs were recorded. The data was analyzed using SPSS for Windows Version 12.0. Analysis included frequency, cross tabulations, calculation of means Spearman's rho. Significance was set at the 5% level.

**Results:** The number of impacted teeth observed in females and males were 5 and 7. The number of intrabony root remains was 18 for females, 11 for males. There were no significant differences in gender for the number of impacted teeth and intrabony root remains ( $p > 0.05$ ). The mean marginal bone levels measured between the two mental foramina was  $18,51 \pm 4.82$  mm (min: 4.83, max: 29.25) for males and  $15,71 \pm 4.46$  (min 4.43, max 26.70) for females. There was a significant statistical difference for female gender ( $p > 0.01$ ).

**Conclusions:** Out of 197 patients 14 patients (7.1%) bone level between interforaminal areas were not suitable for two dental implant placement.

**Keywords:** complete denture, implant-supported overdenture, radiographic findings



## OP-11

**TUNNEL APPROACH FOR INTRAORAL ONLAY BONE AUGMENTATION: PRELIMINARY SURGICAL RESULTS**

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**OBJECTIVE:** Crestal incision is the most commonly used technique for intraoral bone augmentation procedures. However graft exposure due to tight suturing and lack of adequate soft tissues may result with failure. Although tunnel approach may eliminate this not very uncommon complication there is no scientific data about this. In this presentation preliminary surgical results of 12 tunnel approach patient for onlay bone grafting of the alveolar process avoiding crestal incision will be discussed.

**STUDY DESIGN:** 12 consecutive patients requiring alveolar bone grafting were included in this study. Donor sites were chin and ramus of the mandible. Patient age, sex, location of the defect, graft size, minor complications (minor exposure, mild infection, transient paresthesia) and major complications (Large exposure, major infection leading partial or total graft loss, permanent paresthesia) appeared were recorded. Following local anesthesia administration vertical incision about 5 mm away from the alveolar defective site was performed. Vertical incision was planned as long as possible caring the vital structures especially mental nerve. The subperiosteal dissection was carried on until the tunnel width and height was considered enough for accepting the bone graft.

**RESULTS:** Tunnel grafts had significantly less morbidity and graft exposure compared with crestal technique. Although grafting through the tunnel was more technique sensitive and more time consuming it eliminates the crestal incision and suturing.

**CONCLUSION:** Tunnel technique decreases soft tissue dehiscence and graft failure. Despite a short follow-up and relatively small number of patients, this preliminary report shows the feasibility and advantages of "tunnel approach".

**Keywords:** subperiosteal tunneling, onlay bone graft, alveolar resorption

## OP-12

**EFFECTS OF LEUKOCYTE AND PLATELET-RICH FIBRIN (L-PRF) ON OSSEOINTEGRATION OF TITANIUM IMPLANTS IN RABBITS: HISTOMORPHOMETRIC STUDY**Serap Gülsever<sup>1</sup>, Elif Öncü<sup>2</sup>, Burak Bayram<sup>1</sup>, Emine Elif Alaaddinoğlu<sup>2</sup><sup>1</sup>Department of Oral and Maxillofacial Surgery, Baskent University, Faculty of Dentistry, Ankara, Turkey<sup>2</sup>Department of Periodontology, Baskent University, Faculty of Dentistry, Ankara, Turkey

**OBJECTIVE:** The objective of this study was to evaluate the effect of L-PRF on new bone formation and bone-to-implant contact (BIC) of titanium implants in rabbit tibia.

**METHODS:** Ten New Zealand white rabbits (4 months, 3.0-3.5 kg) were used for this study. Two bone cavities 5 mm apart were created in each tibia of the rabbits. In order to prepare L-PRF 8 to 10 ml of blood was obtained from the central artery of the ear and centrifuged for 12 minutes at 2700 rpm. Subsequently, in the left tibia the cavities were laid with L-PRF and 2 press fit implants (diameter 3.0 mm, length 5.0 mm) were installed (experimental group) while in the right tibia implants were installed without L-PRF (control group). Rabbits were sacrificed respectively at 2, 3 and 4 weeks after surgery and histomorphometric analysis was done. Paired t-test and Mann Whitney U test were used for statistical analysis.

**RESULTS:** 3 and 4 weeks after surgery, mean new bone formation and mean BIC in the experimental group were significantly higher than in the control group ( $P < 0.05$ ). On the other hand 2 weeks after surgery, mean new bone formation and mean BIC in the experimental group were significantly lower than in the control group ( $P < 0.05$ ).

**CONCLUSION:** L-PRF can encourage the creation of new peri-implant bone, may lead to faster healing rates and reinforce the osseointegration process of the titanium implant surface; therefore, the loading period could be reduced and the immediate loading of the implants could be more secure.

**Keywords:** L-PRF, osseointegration, bone-to-implant contact, new bone formation



## OP-13

**COMPARISON OF THE SOFT TISSUE REACTIONS TO FOUR DIFFERENT SUTURE MATERIALS IN A RAT MODEL**

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We aimed to investigate the soft tissue healing differences of four different suture materials: coated polyglactin 910, polypropylene, silk and polyglecaprone 25. 20 male Sprague-Dawley rats were randomly allocated into two groups based on sacrifice days (post-operative 1st or 7th days). On each rat's dorsum, four skin incisions, each 1cm in size, were created and primarily closed using each of the four different types of sutures. Effects of suture materials on soft tissue healing were compared histopathologically, using the following variables: cell density, necrosis, fibrosis, presence of acute and chronic infection cells, and foreign body reaction. Chi-squared test was used for descriptive statistics (Mean ± SD) and the comparison of qualitative data. P values < 0.05 were considered significant. There was no statistical difference neither within groups nor sacrifice days, regarding cell density and necrosis. In all groups, fibrosis and foreign body reaction were statistically higher on the 7th day compared to the 1st post-operative day (P = 0.0001 per group). In all groups, the presence of acute infection cells was statistically lower at the 7th day compared to the 1st day (p = 0.002, p = 0.011, p = 0.003, p = 0.001). In polypropylene and silk groups, the presence of chronic infection cells was statistically higher at the 7th day compared to the 1st day (p = 0.020, p = 0.035). All 4 materials showed similar results. However, within the limits of this study, polypropylene had shown slightly less tissue reaction compared with others. In addition, ease of handling, good flexibility, and allowance of secure knots were clinically superior for the silk and coated polyglactin 910. Besides these, factors associated with the patient, type of operation and the type of soft tissue, must all be taken into account in the selection of the suture material to achieve better outcomes.

**Keywords:** coated polyglactin 910, polypropylene, silk, polyglecaprone 25, suture, rat

## OP-14

**CLINICAL COMPARISON OF SUBMUCOSAL INJECTION OF DEXAMETHASONE AND TRIAMCINOLONE ACETONIDE ON POSTOPERATIVE DISCOMFORT AFTER THIRD MOLAR SURGERY**

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**OBJECTIVES:** The aim of the current study is to compare the effect of submucosal injection of dexamethasone and triamcinolone acetonide on postoperative pain, swelling and trismus occurred after the impacted lower third molar surgery.

**MATERIAL-METHODS:** A total of 78 patients (aged 18-35) with asymptomatic, unilateral, impacted lower third molar, and without any systemic disease were included in this study. Patients were divided into three groups randomly. In the experimental groups; dexamethasone and triamcinolone acetonide were injected into submucosa at about 1 cm above the surgical area, and control group of patients were not received any drug submucosally. Pain evaluation was performed by visual analogue scale (VAS). Swelling was measured by a flexible standard ruler measuring the dimensions of the axes between the certain points on the face. For trismus evaluation, maximum mouth opening was measured. Measurements taken on the preoperative, and on postoperative 1st, 3rd and 7th days were compared each other and statistically evaluated.



**RESULTS:** There were statistically significant differences between the control and experimental groups on the different days of postoperative period. Statistically, although the effect of triamcinolone acetonide on pain started on the third day postoperatively, effects of triamcinolone acetonide on trismus and pain was longer-lasting than other groups. Also, there was not a statistically significant difference between the effects of dexamethasone and triamcinolone acetonide regarding to postoperative complications.

**CONCLUSIONS:** It was concluded that the submucosal injection of dexamethasone or triamcinolone acetonide might be an effective treatment on postoperative discomfort occurred following the impacted lower third molar surgery, and the triamcinolone acetonide could be applied alternative to dexamethasone.

**Keywords:** dexamethasone, triamcinolone acetonide, third molar surgery

#### OP-15

### CLOSURE OF OROANTRAL FISTULAE USING AURICULAR CARTILAGE: A MODIFICATION OF THE TECHNIQUE BY RETROAURICULAR APPROACH

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Various surgical techniques have previously been described for the closure of oroantral fistulae. Today, besides some conventional techniques such as simple vestibular mucosal flaps, rotational pedicled palatinal flaps or buccal flaps, some recently described alternative methods and approaches are also utilized. One of these newly described methods is the closure of oroantral fistulae using the auricular cartilage. Auricular cartilage is an ideal graft material for the closure of oroantral fistulae owing to its mechanical and biologic features. This research is the modification of the original auricular cartilage method to develop the technique.

**Keywords:** oroantral fistulae, auricular cartilage, graft, retroauricular approach

#### OP-16

### THE EFFECTS OF OPERATION TIME AND TOOTH POSITION ON PATIENT ANXIETY IN IMPACTED THIRD MOLAR SURGERY

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Dental treatment procedure causes psychologic stress among people which can lead to dental anxiety on patients. Dental anxiety is an obstacle for the patients to provide their dental health care. Impacted third molar surgery is a dental treatment procedure one of which causes dental anxiety among patients. The operation time of impacted third molar surgery and difficulty of surgery can affect the dental anxiety. In this study we evaluated the relationship between the operation time and difficulty of surgery and patient dental anxiety. 58 patients were treated with the impacted third molar surgery. Sociodemographic information form, Corah's dental anxiety scale, state trait anxiety inventory 2, scale were applied to the patients before the surgery whereas state trait anxiety inventory 1, was applied after the surgery. Moreover Corah's dental anxiety scale was applied again after the surgery. Besides, the difficulty of the tooth extraction is evaluated according to Pederson scale and the duration of operation time is recorded. The results of the scales were analysed statistically. As a result of this study, anxiety level before the surgery is higher than after the surgery anxiety level, although there is no relationship between the operation time and difficulty. Moreover, men were more relaxed than women after the surgery. Thus, patients can overcome or decrease the level of their dental anxiety with giving a chance for the first impacted third molar surgery.

**Keywords:** impacted third molar surgery, dental anxiety, operation duration, surgery difficulty



## OP-17

## VERSATILITY OF TONGUE FLAPS IN ORAL CAVITY RECONSTRUCTION

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Soft tissue reconstruction in oral cavity defects are challenging surgery for crucial maintaining the oral cavity integrity and function. Tongue is one of the most versatile organ used for providing tissues required for reconstruction of oral cavity defect. Its abundant blood supply permits different flap design according the anatomy of the reconstructed area, as posterior and anterior based tongue flaps, dorsal and ventral tongue flaps as well as island tongue flaps. The review articles had been reported that tongue flaps are accepted method for oral tissue replacement. 21 patients (15 M & 6 F) sustained different anatomical defects at the oral cavity post tumor ablation and congenital anomalies. The patient age ranged from 3 - 74 years with mean age 43 years. Routine admission laboratory investigations were done for every patient, patient with tongue pathology were exempted from the study. The cases were selected and treated at the Oral and Maxillofacial Surgery Department Shebin Al Kom Teaching Hospital Egypt. Oral cavity reconstruction was done in 12 cases by anterior based tongue flaps while in five cases posterior based tongue flaps were used, Island flap in two cases and both ventral and dorsal sides for lip reconstruction in further two cases. The criteria of using tongue flaps and the difficulty encountered post operatively were managed according each patient tolerability to the nasogastric tube and the save way to divide the tongue flaps without compromising the airway and tongue motility. The results of this modality in comparison to others will be discussed in details during presentation.

**Keywords:** causes of oral cavity defects, management, tongue flaps, advantage

## OP-18

## EFFECT OF PLATELET RICH PLASMA (PRP) ON FIBROCARILAGE, CARTILAGE AND BONE REPAIR IN TEMPOROMANDIBULAR JOINT

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**OBJECTIVES:** New methods of stimulating the repair of cartilage are being investigated currently. Platelet-rich-plasma is blood plasma with highly concentrated platelets. This technique has recently been used successfully for the treatment of knee degenerative pathologies. However, unlike the other synovial joints with hyaline cartilage, temporomandibular joint (TMJ) has a specific structure in which articular surfaces are covered by fibro cartilage. The aim of this study was to determine whether this novel approach is safe and effective for TMJ osteoarthritis, in experimentally induced osteoarthritic TMJs of rabbits.

**DESIGN:** Fifteen rabbits, two of them were being intact controls, were used in this study. 13 rabbits underwent bilateral surgical procedure of creating defects on TMJ fibro cartilage, articular cartilage and condylar bone. In the study group, PRP was injected to the TMJs, while physiological saline injected in the control group. After four weeks, the animals were sacrificed, and the specimens were examined histologically, and by using scanning electron microscope (SEM). The healing tissues were classified into 3 groups according to their similarities to normal TMJ: grade 1-near normal; grade 2- fibro cartilage; grade 3- fibrosis.

**RESULTS:** Twelve TMJs in the study group and 8 in the control group were evaluated histologically. In the control group 5 TMJs (67.5%) showed fibrosis like healing (grade 3), 2 TMJs (25%) were classified as grade 2, and 1 TMJ (12.5%) classified as grade 1 in the control group. 5 TMJs (41.7%) classified as grade 3, 1 TMJ classified as grade 2 (8.3%) and 6 TMJs (50%) showed good healing and classified as grade 1, in the study group.

**CONCLUSION:** Bioactive growth factors in PRP may enhance healing of fibro cartilage by modulating the microenvironment of the TMJ. Platelet-rich-plasma may have positive effects in treating degenerative diseases of temporomandibular articular cartilage.

**Keywords:** platelet rich plasma, temporomandibular joint, osteoarthritis



**OP-19**

**EVALUATION OF PROLOTHERAPY AT TMJ DISLOCATION IN ONE YEAR FOLLOW-UP PERIOD**

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**OBJECTIVE:** In this study we aimed to evaluate the efficacy of intracapsular injection of dextrose to the TMJ for treating acute or chronic luxation or subluxation of TMJ in one year period.

**MATERIALS-METHODS:** In this study, 24 patients with TMJ dislocation were evaluated retrospectively. All patients were treated with injection of 2 mL of 10% of hypertonic dextrose solution into upper joint space, capsule and retrodiscal tissue following local anesthesia with 2mL articain.

**RESULTS:** 20 of the patients showed significant decrease in pain and open-lock episodes in one year follow-up period. Maximal mouth opening decreased in all patients at three months period however in one year period decrease in maximal mouth opening was found insignificant.

**Keywords:** prolotherapy, dislocation, maximum mouth opening

**OP-20**

**EFFECTS OF ZOLEDRONIC ACID ON PHYSIOLOGIC BONE REMODELING OF CONDYLAR PART OF TMJ: A PRELIMINARY STUDY IN RABBITS**

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**OBJECTIVE:** The purpose of the present study is to evaluate the effects of systemically administered Zoledronic acid (ZA) on the physiological bone remodeling and the micro-architectural parameters of the condylar part of TMJ in a rabbit model.

**STUDY DESIGN:** Thirty skeletally mature male New Zealand white rabbits were randomly divided into two groups. The experimental group was administered an intravenous, single dose of 0.1 mg/kg ZA diluted with 15 mL of saline in a 15-minute perfusion with an infusion pump. The control group was administered only saline infusion for 15 minutes. All rabbits were sacrificed on the 21st postoperative day. Radiodensitometric and histomorphometric examinations were performed on the harvested mandibular condyles. The data were analyzed statistically.

**RESULTS:** Radiodensitometric findings showed that ZA treatment resulted in a significant increase in the mineralization of mandibular condyle. This result was supported by the histomorphometric findings

**CONCLUSION:** The present study have revealed that a temporary delay in the physiological bone remodeling using single dose of ZA increases bone mineral content and makes the micro-architecture of the mandibular condyle more compact. These effects may be regarded as a base data and considered in numerous clinical situations including TMJ.

**Keywords:** bisphosphonate, mandibular condyle, rabbit, TMJ, zoledronic acid



**OP-21****CONDYLAR AND RAMUS HEIGHT OF THE MANDIBLE IN TEMPOROMANDIBULAR DISORDERS: A PANORAMIC RADIOGRAPH STUDY**

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The temporomandibular joint (TMJ) is a joint in the body that is composed of a hinge and a sliding compartment. It has a frequency of motion indicated up to 2000 times per day during talking, chewing, swallowing and snoring. In spite of the fact that a large number of people who are suffering from TMJ disorders, the TMJ field of research has not been deeply explored and it is one of the least studied joints in the human body. The most common TMJ disorders are trauma or fracture, advanced degenerative disease, tumors, developmental anomalies and ankylosis. Temporomandibular disorder (TMD) is an umbrella term, embracing conditions that involve the temporomandibular joint (TMJ) and/or masticatory muscles and associated structures. Panoramic imaging is a widespread diagnostic aid in dental practice. Despite the methodological limitations, some studies have shown the possibility of performing vertical linear and angular measurements with satisfactory accuracy, provided that the patient is well positioned and the film is correctly exposed. Although its usefulness in the assessment of the TMJ is controversial, some studies have concluded that panoramic radiographs are suited to find alterations in the condyle, others support the opposite position. The aim of the present study was to evaluate the correlation of TMJ disorders and ramus and condylar heights of the mandible using the panoramic radiographs.

**Keywords:** condyle, disorders, measurement, panoramic radiograph

**OP-22****EFFICACY OF BOTULINUM TOXIN TYPE-A (BTX-A) IN PATIENTS WITH CHRONIC OROFACIAL PAIN**

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**OBJECTIVES:** Chronic orofacial pain (COFP) can have profound functional and social implications. When this type of pain becomes unresponsive to treatment modalities, it in turn presents a clinical problem. Botulinum Toxin A (BTX-A) has been shown in previous studies to reduce pain in chronic pain conditions, such as chronic migraine and chronic tension-type headaches. This study compared the efficacy of BTX-A in patients with various COFP conditions.

**METHODS:** Sixteen patients undergoing treatment with BTX-A completed a questionnaire addressing their pain symptoms. These patients were suffering from headaches (n=5), migraines (n=3), Trigeminal neuralgia (n=2), occipital neuralgia (n=2), nummular headaches (n=1), atypical Trigeminal neuralgia (n=2), and atypical odontalgia (n=1). Pain levels pre- and post-BTX were examined through the use of a visual analogue scale of 0 (no pain) to 10 (worst pain imaginable). Interruptions to everyday functions due to their pain, side-effects and medication use were recorded. Administration of BTX-A varied amongst the different COFP sufferers, depending on the level of pain and the area in pain.

**RESULTS:** 62.5 % of patients indicated substantial benefit using BTX-A, whereby their functionality improved and medication use decreased. Mean pain levels at rest, at worst and on average significantly decreased following BTX-A treatment, from 6.8 to 3.8 (p=0.0099), 9.6 to 7.3 (p=0.0059) and 7.0 to 4.8 (p=0.0115), respectively. BTX-A appeared to be significantly more efficacious in neurovascular and tension-type COFP conditions. Minimal side-effects were experienced, with the most severe being facial palsy.

**CONCLUSION:** Our results provide promising data for the efficacy of BTX-A in a wide range of COFP conditions. This emerging treatment could be revolutionary to pain management in instances where other treatment modalities are failing.

**Keywords:** Botox, chronic orofacial pain, pain management



**OP-23**

**EVALUATION OF THE THERAPEUTIC EFFECTIVENESS OF ARTHROSCOPIC LYSIS AND LAVAGE ON TMJ**

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TMJ disorders affect almost %25 of the population and can be managed by conservative methods consisting of NSAIDs, myorelaxants, soft diet, occlusal splints and arthrocentesis. Although patients who do not respond to conservative methods to overcome pain and restriction of mouth opening may benefit from arthroscopic lysis and lavage. Arthroscopy is a less invasive method in comparison with surgical treatment methods of TMJ and also offers a superior diagnosis to that of MRI scanning. Our study is based on the evaluation of our initial experience in TMJ arthroscopy to manage TMJ disorders resistant to conservative treatment methods.

**Keywords:** arthroscopy, disorder, lysis and lavage, TMJ

**OP-24**

**COMPARATIVE EVALUATION OF ARTHROCENTESIS ON POSTMENOPAUSAL WOMEN**

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**INTRODUCTION:** Temporomandibular joint (TMJ) internal derangement disorders occur more commonly in women and the symptoms are limited mouth opening, TMJ pain with or without dysfunction, deviation on mandibular movements. In this retrospective study we aim to evaluate the outcomes of arthrocentesis treatment on reproductive and postmenopausal women patients classified as Wilkes class III and IV.

**MATERIAL AND METHOD:** In the study we compare the efficacy of arthrocentesis on closed-lock, maximum mouth opening, chewing dysfunction, pain and quality of life between 30 reproductive and 30 postmenopausal women, total 60 patients classified as Wilkes class III and IV.

**DISCUSSION:** We found that arthrocentesis was clinically effective on closed-lock, maximum mouth opening, chewing dysfunction, pain and quality of life in both patients group and these results were also statistically significant.

**RESULTS:** Arthrocentesis is an effective and reliable treatment on TMJ internal derangement disorders.

**Keywords:** arthrocentesis, menopause



## OP-25

**SINUS AUGMENTATION WITH PLATELET-RICH FIBRIN IN COMBINATION WITH BOVINE BONE GRAFT VERSUS BOVINE BONE GRAFT IN COMBINATION WITH COLLAGEN MEMBRANE**

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The lateral window approach in the treatment of atrophic posterior maxilla is very predictable, safe and one of the most frequently performed treatment modality. However there is no consensus on the ideal grafting material for sinus augmentation surgery. Platelet-Rich Fibrin (PRF) is described in 2001 as a second generation platelet concentrate. It was reported that PRF can be used successfully solely or in combination with graft materials. The objective of this study was to compare the efficacy between the use of bovine bone graft material and Platelet Rich Fibrin (PRF) mixture and routinely used bovine bone graft material and collagen membrane combination in sinus augmentation surgery 32 two stage unilateral or bilateral maxillary sinus augmentation surgeries were selected for the study. A total of 66 one-staged implants were placed after 6 month healing period. During implant surgery also samples were taken for histologic and histomorphometric analyses. Panoramic radiographs were used to evaluate the change in the height and histomorphometric analyses. Panoramic radiographs were used to evaluate the change in the height of the grafted sinus for approximately 36 months. No implant loss or complication was observed during the evaluation period. There were no statistical differences according to new bone formation ( $35.0 \pm 8.60$  in test group,  $32.97 \pm 9.71$  in control group) and biomaterial remnant ( $33.05 \pm 6.29$  in test group,  $33.79 \pm 8.57$  in control group). It was observed that grafted sinus covered the implant apex and sinus floor was above the original sinus height in both groups. During the evaluation period PRF+bovine bone graft group showed statistically less change in the height of grafted sinus floor for each implant than control group. Within the limitation of this study it can be concluded that both combinations can be successfully used for sinus augmentation.

**Keywords:** sinus augmentation, platelet-rich fibrin, bovine bone graft, collagen membrane

## OP-26

**INFLUENCE OF CAFFEIC ACID PHENYL ESTER (CAPE) ON BONE DEFECT**

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**OBJECTIVE:** CAPE is a substance of honeybee origin with known, antioxidant, anti-inflammation, antiviral and anticancer effects. The purpose of this study was to examine the effects of CAPE on bone regeneration and fibrotic healing in critical size defect of rats.

**MATERIAL-METHODS:** Forty-eight male Sprague-Dawley rats with a mean age of 7 weeks and weighing 280–490 g were included in this study. These rats randomly were divided into three groups. The rats were anaesthetized with cetamine (8 mg/100g intraperitoneally). Group A (Control group): Tibia defects were performed and no treatment was received (n=6); Group B (Experimental group): Tibia defects were performed and CAPE was received Group C (Experimental group): Tibia defects were performed and CAPE and beta tricalcium phosphate/hydroxyl apatite were performed. Caffeic acid was daily injected intraperitoneally (10 micromole/kg). The rats were sacrificed at the day of seven, fifteen and thirty after the procedure. Bone regeneration, fibrotic healing and osteoblastic activity were evaluated by histopathologically

**RESULT:** The levels of bone healing 30th day in the graft and CAPE combination group (Group C) and CAPE group (Group B) were significantly higher than in the control group (Group A) ( $P < 0.0167$ )

**CONCLUSION:** CAPE can significantly improve bone defect healing.

**Keywords:** Caffeic acide, bone defect, bone healing



## OP-27

**IS KRYPTONITE BONE CEMENT AN ALTERNATIVE GRAFT MATERIAL IN SINUS LIFTING? A HISTOLOGIC AND STEREOLOGICAL STUDY**Seda Yılmaz<sup>1</sup>, Bora Özden<sup>2</sup>, Berrin Zuhul Altunkaynak<sup>3</sup>, Burcu Baş<sup>2</sup>, Gamze Yayla Altun<sup>3</sup><sup>1</sup>Istanbul Aydın University, Department of Oral and Maxillofacial Surgery, İstanbul, Turkey<sup>2</sup>Ondokuz Mayıs University, Department of Oral and Maxillofacial Surgery, Samsun, Turkey<sup>3</sup>Ondokuz Mayıs University, Department of Histology and Embryology, Samsun, Turkey

**PURPOSE:** The aim of this study is to histologically and stereologically evaluate the effect of Kryptonite®, a newly developed graft material in sinus lift operations by comparing with autogenous bone graft and xenograft.

**MATERIAL-METHODS:** Twenty-one New Zealand rabbits were used in this study. Rabbits were randomly divided into 3 groups including 7 rabbits. Bilateral maxillary sinus lifting operation was carried out with lateral window technique and Kryptonite®, Bio-Oss® and autogenous bone graft harvested from tibial bone were used for augmentation. Maxillary sinuses with surrounding bone tissue were dissected at post-operative 1 and 2 months. The new formed bone was evaluated with stereologic analysis. Data was statistically analyzed with SPSS software (SPSS 17.0 for Windows).

**RESULTS:** In Kryptonite® group, bone tissue ossification was observed between graft material and surrounding bone tissue, there was no bone formation within the porous structure at 1st and 2nd months. In Bio-Oss® group, the osseointegration of graft materials and ossification areas was seen at 1st and 2nd months. In autogenous bone group, active bone formation and osteoblast cells were observed at 1st and 2nd months. When the newly formed bone volume was compared at 1st and 2nd month, the highest value was obtained from autogenous bone group and significant difference was found among the three groups.

**CONCLUSION:** Kryptonite® bone cement was found less effective than Bio-Oss® and autogenous bone graft with regard to new bone formation in maxillary sinus lifting procedure.

**Keywords:** maxillary sinus lifting, kryptonite bone cement, autogenous bone, bio-oss, stereology

## OP-28

**EXPERIMENTAL INVESTIGATION ON EFFECTS OF PLATELET RICH FIBRIN (PRF) FOR BONE DEFECTS HEALING; HISTOMORPHOMETRICAL EVALUATION**Nesligül Niyaz Kökdere<sup>1</sup>, Timuçin Baykul<sup>2</sup><sup>1</sup>Private Clinic<sup>2</sup>Suleyman Demirel University Dentistry Faculty Oral and Maxillofacial Surgery Department, Turkey

In recent studies, it is pointed out that "Platelet-rich fibrin (PRF)", which is derived autogenously from the own blood of the individuals might have the potential to increase regeneration and accelerate wound and bone healing due to the various growing factors it consists. In addition to limited number of clinical studies, it is observed that current studies are mostly experimental and focused on the researches of appropriate PRF/graft combination. In literature, any controlled experimental study about PRF and particulate autogenous graft combination in different time intervals were not encountered. The aim of our study is to evaluate, the efficiency of PRF and PRF/autogenous graft combination on bone healing in different time intervals in a rabbit model. 24 skeletally mature New Zealand rabbits were used. Animals were divided randomly to 2 groups. 3.3 mm diameter, two bone defects were created on the right and left tibia for each. Solely particulate autogenous bone graft, solely PRF and combination of PRF/autogenous bone graft was performed to defects. One defect was left empty as a control group. The animals in the first experimental group were sacrificed after 30 days. The animals in the second experimental group were sacrificed after 60 days. Histomorphometrical and statistical analysis was performed. Histomorphometrical analysis showed that either PRF used solely or used in conjunction with autogenous bone graft, PRF accelerate the healing of bone defects. The results of this study verified that PRF increase new bone formation and has a positive effect on early bone healing. In this study, it is demonstrated that bone defects could be restored successfully by the application of PRF as solely graft material or combination with autogenous bone graft. There have been many clinical successes when PRF was used solely or in combination with other graft materials.

**Keywords:** autogenous graft, bone healing, growth factors, histomorphometry, platelet rich fibrin



**OP-29**  
**EFFECT OF ZOLEDRONIC ACID ON DEFECT REPAIRMENT IN OSTEOPOROTIC RAT MODELS: STEREOLOGICAL EVALUATION**

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**AIM:** Osteoporosis is a systemic skeletal disorder which results from an imbalance in bone remodelling. Zoledronic acid is a nitrogen-containing bisphosphonate that inhibits osteoclast activity and bone resorption. The aim of this study is to evaluate effect of zoledronic acid on bone defect healing in osteoporotic rat model.

**MATERIAL-METHOD:** All rats underwent bilateral ovariectomy. 6 weeks after ovariectomy. A 5-mm diameter critical size defect was made with a trephine used in a low-speed handpiece under continuous sterile saline irrigation. The defect included a portion of the sagittal suture. After operation forty-eight rats were divided into six groups: Group 1 (control), Group 2 (control+ZA), Group 3 (autogenous graft), Group 4 (autogenous graft+ZA), Group 5 (Mineross), Group 6 (Mineross+ZA). All animals were sacrificed at 8 weeks postoperative. New bone formation, the remaining bone graft particles and connective tissue were evaluated by radiographic, histologic and stereologic methods.

**RESULTS:** Analysis showed that autogenous graft and zoledronic acid treated defects (Group 4) had significantly more new bone at 8 weeks compared with all other groups ( $p < 0.05$ ).

**CONCLUSIONS:** Zoledronic acid enhances the new bone formation by bone graft in the rat calvarial defect model suggesting that the inhibition of the osteoclastic activity allows an increased rate of bone apposition.

**Keywords:** autogenous, critical size defect, osteoporosis, new bone, zoledronic acid

**OP-30**  
**AN EXPERIMENTAL INVESTIGATION OF LOCALLY APPLIED RIFAMYCIN EFFECTS ON RELEASE OF BONE MORPHOGENETIC PROTEIN AND NEW BONE FORMATION**

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**OBJECTIVES:** Bone is a tissue that has regeneration. But large bone defect healing might be concluded with fibrosis. The certain studies showed that to increase of Bone Morphogenetic Protein (BMP) concentration in defect area provide to healing the defect with bone tissue. So the researcher have study about the method or factor that increased BMP oscillation and new bone formation. This study investigated that the effect of rifamycin to increase of BMP and new bone formation in defect area.

**DESIGN:** Mandibular defect models were performed in adult male Wistar rats. Standardized 5.0 mm diameter critical size bone defect was created in right mandible angulus. In the control group there has not been any process, the defect was irrigated with rifamycin in the first experimental group, rifamycin impregnated spongostan collagen was placed in defect in the second experimental group. All the rats were sacrificed at 21th day after surgery. Histological evaluation was performed as histomorphometric and immunohistochemistry analysis (bone morphogenetic protein-2 anti-bodies).

**RESULTS:** The evaluation with histomorphometric analysis in defect area showed that the average new bone formation was observed  $88789 \pm 3643$  in the first,  $89287 \pm 3413$  in the second experimental group,  $78583 \pm 4834$  in the control group. In addition the number of osteoblast, fibroblast and new formation of blood vessels was increased more in both of experimental groups in comparison with control group. The evaluation with immunohistochemistry analysis showed that the average cell number of stained Anti-BMP-2 was observed  $6,4 \pm 0,9$  in both of experimental groups and  $4,0 \pm 0,9$  in control group. Statistical evaluation for all parameters showed significant difference between the experimental groups and the control group.

**CONCLUSION:** Our results showed that rifamycin contributing significantly to healing to critical size bone defect.

**Keywords:** bone morphogenetic protein, histomorphometry, regeneration, rifamycin



**OP-31**

**CLINICAL & RADIOGRAPHIC ASSESSMENT OF THE OUTCOME OF AUTOGENOUS CHIN GRAFT FOR AUGMENTATION OF DEFICIENT MAXILLARY BONE**

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**OBJECTIVE:** This clinical and radiographic prospective study investigated the efficacy of autogenous chin graft as a method of maxillary reconstruction.

**METHODS:** This is a prospective study carried out on 7 patients. They were complaining of loss of number of maxillary teeth as well as deficient residual bone. This study was carried out at oral and maxillofacial surgery Department, Faculty of Dentistry, Suez Canal University along the period of two years ( from 2010 - 2012). The cases were examined clinically for the extent of the edentulous span and extent and type of bony defect. Cone beam CT (CBCT) was performed preoperatively, two weeks postoperatively, 6 months postoperatively. Surgical access to the symphysis area was established under local anesthesia on an outpatient basis and the graft was harvested as one or two blocks along with cancellous graft according to the size of the defect. The recipient site was prepared by decortication and the graft fixed by screws in place and tissue expansion and periosteal scoring were performed to achieve primary closure using resorbable sutures. Follow up was done clinically 1 day, 1 week, and 2 weeks postoperatively.

**RESULTS:** The patients were 4 males and 3 females ranging in age from 21-34 with mean of 27.83. The clinical parameters of pain, edema, and donor site morbidity were satisfactory starting 1 week postoperatively except for one case which lost one of its two blocks 1 month postoperatively. The bone volume of the grafted area as assessed by CBCT showed statistically significant increase

**CONCLUSION:** The chin graft could be considered as simpler and reliable method for maxillary bone augmentation as long as the defect is moderate sized and it yielded less complications and donor site morbidity as far as 1 year postoperative follow up

**Keywords:** Symphyseal graft, chin graft, cone beam CT, maxillary bone augmentation

**OP-32**

**EFFECT OF RIFAMPIN IN COMBINATION WITH ALLOGENEIC, ALLOPLASTIC, AND HETEROGENOUS BONE GRAFTS ON BONE REGENERATION IN RAT TIBIAL BONE DEFECTS**

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**PURPOSE:** The aim of this study was to evaluate the efficacy of rifampin with allogeneic, alloplastic, and heterogeneous bone graft substitutes on osteogenesis of experimentally created bone defects in rat tibias.

**MATERIALS-METHODS:** Twenty-eight male Wistar albino rats were used in this study. In each animal, two bone defects were created in the left and right tibias, respectively. The animals were divided into four groups. In Group 1, the defects were irrigated with rifampin alone. In Group 2, the defects were filled with rifampin and allogeneic bone graft. In Group 3, the defects were treated with rifampin and alloplastic bone graft. In Group 4, the defects were filled with rifampin and heterogeneous bone graft.

**RESULTS:** The animals were sacrificed on the 21st postoperative day. Histopathological analysis of samples was performed to evaluate the process of bone regeneration and the presence of spongy bone, cortex bone, and bone marrow. Bone union ( $p = 0.023$ ) and spongy bone ( $p = 0.030$ ) values were higher in Group 1A (rifampin alone) than those in Group 1B (saline alone). Bone union ( $p < 0.001$ ) and spongy bone ( $p < 0.001$ ) values in Group 2B (allograft + saline) were higher than those in Group 2A (allograft + rifampin). These differences were statistically significant.



**CONCLUSIONS:** Topical rifampin can accelerate the bone repair process, but the combination of rifampin and allogeneic bone grafts can also reduce new bone formation in osseous defects. Further studies involving long-term follow-up with a larger number of cases and different antibiotic agents should be conducted. These will provide additional data regarding new bone formation, especially in contaminated bone defects, resulting from use of antibiotic-supplemented bone grafts.

**Keywords:** bone graft, rifampin, antibiotic supplemented bone graft, osteogenesis

### OP-33

## REHABILITATION FOR GUNSHOT DEFECT OF MANDIBLE WITH ALVEOLAR DISTRACTION OSTEOGENESIS AND IMPLANT TREATMENT

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**AIM:** The aim of this presentation is to describe alveolar distraction osteogenesis protocol and after that implant surgery with a case that the patient had severe mandibular bone deficiency because of gunshot.

**INTRODUCTION:** Many etiologies (dental extraction, trauma, oral infection, intra- or extraosseous tumors, etc.) can lead to mandibular bone defects. Several methods for alveolar ridge reconstruction exist: autogenous bone grafting, guided bone regeneration, and alloplastic materials. In recent years, alveolar distraction osteogenesis has become one of the principle surgical techniques used in preimplant surgery to increase the height of the alveolar ridge and to obtain periimplant soft tissue.

**CASE:** The 30-years-old patient with severe bone deficiency of mandibular anterior region presented to our department, three months after gun shot. After clinical and radiological examination, distraction osteogenesis was preferred for treatment. After incisions mucoperiosteum was reflected, exposing the labial surface of the mandible with local anesthesia. Osteotomy was performed with a bone saw. After confirming mobility, traction to the labial side was placed on the bone segment and then the distraction device was placed. After the 7-day latent period, the mandibular bone was distracted by 1mm every day. The total amount of distraction was 14mm and four months consolidation period with the distraction device in the mouth was allowed. After consolidation period, the distraction device was removed and four implants were inserted. Four months after implant insertion, the definitive prosthesis was fabricated and placed. The patient was satisfied with both the esthetic and functional results, and a good prognosis was predicted.

**DISCUSSION:** In contrast to bone graft, which can be difficult for cases with wide bone defects, distraction osteogenesis is the preferred method for wide-range augmentations, owing to advantages of this technique. The most important factor that influenced its success was correct planning and stay true to distraction osteogenesis protocol.

**Keywords:** dental implant, distraction osteogenesis, bone deficiency



**OP-34****A SIMPLE SOLUTION FOR VECTOR CONTROL IN VERTICAL ALVEOLAR DISTRACTION OSTEOGENESIS**

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Vertical alveolar distraction (VAD) adds an adequate amount of bone along with the required soft-tissue. In order to ensure that new bone is positioned suitably for implant placement, it is essential for the distraction device to be properly aligned. One of the important and frequent complications in VAD osteogenesis is vectorial change of the transport segment. It is not uncommon for the bone to be misdirected due to the forces exerted by surrounding muscle and tight connective tissue, especially in the symphyseal and maxillary regions. This report presents a simple solution for vector angulation control by placing intermaxillary fixation screws intraoperatively. Advantages of the technique were also discussed.

**Keywords:** alveolar distraction, complication, implant, segment, vector

**OP-35****PERIOSTEAL DISTRACTION USING A NEW DISTRACTION DEVICE; AN IN VIVO STUDY IN RABBITS**

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**OBJECTIVE:** The osteoinductive potential of periosteum and bone can be stimulated by elevating the periosteum in a distraction-like modus. It has been shown that periosteal distraction can regenerate new bone in previous animal and clinical studies. In this study, we evaluated the bone regeneration capacity of periosteal distraction with newly designed periosteal distractor in a rabbit model. The periosteal distractors were custom designed allowing precisely adaptation to recipient site and minimally traumatizing periosteum.

**MATERIAL-METHODS:** Ten New Zealand rabbits weighing 3.2 to 3.7 kg were used. The mandible was accessed via a horizontal skin incision. The periosteum was carefully detached from the bone and the cortical bone was perforated by drilling. The distractor was placed between the periosteum and the cortical bone. After a 7-day latency period, the periosteum was distracted 0.5 mm per day for 10 consecutive days. Rabbits were sacrificed after consolidation periods of 45 days. Computed tomography and histomorphometric analyses were performed to evaluate the new bone formation.

**RESULTS:** No intraoperative or postoperative complication was met. New bone formation was seen in gross specimens. Histomorphometric analyses on undecalcified sections and HU scores obtained from CT scans revealed new bone formation at the distraction gap in all specimen.

**CONCLUSION:** Periosteal distraction with minimal damage to periosteum can be an effective alternative treatment for rehabilitation of atrophic alveolar bones.

**Keywords:** bone regeneration, distraction, periosteum



**OP-36**

**CLINICAL MANIFESTATIONS AND SURGICAL TREATMENT OF CRANIOSYNOSTOSIS IN MOSUL CITY - IRAQ (2007 - 2012)**

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**INTRODUCTION:** Craniosynostosis is a condition in which one or more of the fibrous sutures in an infant skull prematurely fuses by turning into bone.

**AIM:** evaluate the clinical manifestations of craniosynostosis, imaging and surgical treatment with their complications.

**MATERIALS-METHODS:** The study comprised twenty one patients complaining from craniofacial deformity. The patients evaluated by recording the medical history, clinical examination and diagnosed by imaging that included a plain x- ray and computed tomography. The goal of surgery is to open the fused sutures, reshape the head and allow for normal brain and skull growth, the operations were done by the same maxillofacial surgeon and different neurosurgeon. According to the type of material that used to fixate the cranial bones, the patients divided into 3 groups, Group A: titanium plate and stainless steel wire. Group B: stainless wire. Group C: absorbable suture.

**RESULTS:** The clinical examination showed cranial bones deformity in all patients while (4) patients involved by papilloedema. The plain x- ray for the skull diagnosed (4) cases by showed beaten copper appearance, while the computed tomography gave excellent evaluation for all cases. The nonsyndromic craniosynostosis formed (90.4%) and coronal suture involvement formed (61.9%). The follow-up showed that the group C had more cosmetic improvement and more comfortable than group A and B, and there were (4) patients in group A and (2) patients in group B complained from extracranial prominent of plates and wire.

**DISCUSSION:** the advantages of absorbable suture included lower costs, speed of application, and absence of translocation.

**CONCLUSION:** The most clinical manifestations were cranial deformity while visual deterioration was often late manifestations. The computed tomography scan represents the gold standard evaluation for craniosynostosis. The use absorbable suture in bone fixation showed more cosmetic improvement and more comfortable to the patients with low complication rate.

**Keywords:** deformity, craniofacial disease, cosmetic cranial surgery

**OP-37**

**COMPUTER AIDED AND NAVIGATED MAXILLOFACIAL SURGERY IN COMPLEX CASES**

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**INTRODUCTION:** The complex anatomy of the skull makes surgery in this area difficult. The close neighborhood of important anatomical structures carries the risk of injuries for the patient with far-reaching consequences which sometimes limits the aim. E.g. the search of foreign bodies, reconstruction of complex traumas or resection of extended tumors near to the skull base are not feasible without precise orientation.

**QUESTION:** Is the navigation a help? Can a higher radicalism in resection of tumors be reached or less invasive approaches? Is a more precise reconstruction in traumas possible?



**METHOD:** In 2 years about 60 patients were operated computer assisted. Patients with extended tumors near to skull base, complex traumas of the viscerocranium, gun shot injuries, grave's disease, orthognathic patients. Different soft tissue and transfacial bone incision approaches were used. Resections were intended radical. In 3 cases the tumors were operated interdisciplinary with neurosurgery. For navigation we used the VoXim/VoNavix-System. Patients had their imaging with an upper-jaw registration plate or previously introduced fiducials. With these markers intraoperative reference could be done after calibrating the system.

**RESULTS:** At all patients the foreign bodies could be detected and removed minimal invasively. A wire up to 0.5mm thickness could be detected. At all patients the resections could be reached as desired. With no patient there were grave complications. Through calibration and precise referencing the precision of the system was less than 1mm. In skull base surgery the rest thickness of bone was reached up to 1 mm. In traumatology the precision of reconstruction could be reached up to 0.5mm. In Orthognathic surgery the preoperative planning could be realized with a precision less than 1mm.

**CONCLUSIONS:** The computer assisted navigated surgery is a helpful tool for the surgeon with a benefit of precision and safety. Minimal-invasive approaches could be reached because of this precise orientation.

**Keywords:** computer aided surgery, navigation, complex trauma, skull base, foreign body removal

#### OP-38

#### SPLINT FABRICATION AND BASICS OF 3D ORTHOGNATHIC CASE PLANS

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In case of orthognathic surgery planning, 2d and 3d softwares are a big help. In this lecture, an orthognathic case will be planned via a 2d and 3d softare. According to the data found, basic steps of splint production will be shared. These include, laboratory procedures and the common mistakes.

**Keywords:** orthognathic surgery, basics of 2d and 3d orthognathic surgery plans, double jaw surgery splint fabrication

#### OP-39

#### PERIOPERATIVE RARE AND COMMON COMPLICATIONS OF ORTHOGNATHIC SURGERIES

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**PURPOSE:** The aim of this study was to assess the rare and common complications related with Le Fort I, sagittal split ramus osteotomy and genioplasty procedures.

**MATERIAL-METHODS:** This study was carried out on 140 patients (78Female/ 52 Male) who had undergone surgical treatment for correction of Class 2, Class 3 or open-bite dentofacial deformities between 2007 and 2012. 93 bimaxillary surgery, 44 one jaw surgery, 36 genioplasty procedure and 9 additional facial contour reconstruction with medpor graft were performed by the same surgical team. All the perioperative complications were assessed retrospectively.

**RESULTS:** The perioperative possible complications could be listed as atypical osteotomy, hemorrhage, soft tissue damage, neurosensory deficiency, hematoma, infection, secondary displacement, bone necrosis, mental ptosis, defective ossification, dental lesions, paradontal lesions, irregular mandibular contours and medpor graft reactions. The much more rare and atypical complications were hyperthermia (0,07%; n:140), back burn of the patient due to heater(0,07%), alopecia due to pressure(0,07%) and medpor graft hypersensitivity (14%).

**CONCLUSION:** We compared our findings with the data reported in the literature. The details of the complications were presented, and possible methods that reduce and/or prevent these complications were discussed.

**Key words:** complications, orthognathic surgery



OP-40

**THE INFLUENCE OF THE AMOUNT OF MANDIBULAR MOVEMENT AND TYPE OF THE SURGICAL PROCEDURE ON SUBMENTAL-CERVICAL ESTHETICS**

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**PURPOSE:** The submental-cervical contour has a major effect on facial esthetics. Mandibular set-back and/or posterior autorotation of the mandible, which reduce submental length, may worsen submental-cervical contour. On the other hand, mandibular advancement and/or anterior autorotation of the mandible can improve submental-cervical contour. The exact prediction of submental soft tissue changes following mandibular movement is still controversial. The aim of this study was to evaluate submental-cervical soft tissue contour changes following mandibular advancement and set-back procedures.

**METHODS:** Sixtyseven consecutive patients (mean age:26,31) were included in this study. Group I consisted of 27 Class 2 patients who underwent mandibular advancement surgery; whereas Group II consisted of 40 Class 3 patients who underwent mandibular set-back surgery. C-point to menton (C-Me), C-point to soft tissue pogonion (C-Pog'), the angle between submental plane and facial plane (GpPg'.CMe'), lower vertical height- depth ratio (SnMe'/CPog'), cervical plane angle (CPA) were measured on preoperative and postoperative cephalometric radiographs. A newly created method was used to evaluate the amount of sagging at submental region by measuring the perpendicular distance between submental plane and most pendulous point of submental soft tissue. Measurements were statistically analyzed by Paired t test and Regression Analysis.

**RESULTS:** The submental length did not change in Group 1, however; it decreased significantly in Group 2 ( $p < 0.05$ ). The decrease of C-Me was 3,9mm and decrease of C-Pog' was 5,2mm in Group 2. GpPg'.CMe' decreased from 98,80 to 95,90 in Group 1 ( $p < 0.05$ ) whereas, it increased from 88,20 to 93,10 in Group 2 ( $p < 0.05$ ). The change of submental soft tissue sag was almost stable in Group 1 while, 0,34mm increase of sag was observed in Group 2 ( $p > 0.05$ ). The change of SnMe'/CPog' was also statistically significant in Group 2 ( $p < 0.05$ ).

**CONCLUSION:** In mandibular set-back patients, even the submental soft tissue length decreases, undesirable submental sag may not occur. Additionally submental contour does not remarkably change following the mandibular advancement.

**Keywords:** cervical plane angle, orthognathic surgery, submental-cervical soft tissue, submental plane

OP-41

**THE CORRECTION OF MANDIBULAR PROGNATHISM AND POLIDIESTEMA BY MANDIBULAR CORPUS OSTECTOMY**

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**OBJECTIVE:** Orthognathic surgery is widely used to correct congenital and acquired dentofacial discrepancies. Various surgical procedures have been advocated for correction of mandibular prognathism. Since it was first described in 1906, the mandibular body ostectomy procedures have often been used in combination with other mandibular and maxillary procedures to correct mandibular prognathism. The aim of this oral presentation is to report the surgical technique and the outcomes of mandibular rectangular body ostectomy in the treatment of two patients with severe mandibular prognathism and polidiestema.



**METHODS:** Mandibular setback by bilateral rectangular body osteotomies in combination with maxillary procedures and fixed orthodontic treatment were performed in two patients with Class III malocclusion. To overcome some of the disadvantages of the mandibular body osteotomy, a sliding osteotomy accomplished by parallel sectionings of the mandible in the regions of the first premolars was used for the treatment of mandibular prognathism in two cases. The osteotomy was performed by an intraoral approach without damaging to the contents of the mental foramen. The anterior segment was moved back to desired position without losing optimum bony contact.

**RESULTS:** Satisfactory functional and aesthetic outcomes were obtained and acceptable profiles were provided for both patients. An adequate blood supply to the anterior segment was maintained.

**CONCLUSIONS:** The mandibular rectangular osteotomy remains a safe and versatile procedure with predictable results in well-selected cases in which a good occlusion cannot be expected by a ramus osteotomy. A multidisciplinary approach is essential for the best results to be obtained.

**Keywords:** diastema, maloklusion, orthognatic, ostectomy

#### OP-42

### THE EXTENT OF CHIN PTOSIS AND LOWER INCISOR EXPOSURE CHANGES FOLLOWING THE OSSEOUS GENIOPLASTIES

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The incision and dissection of the mentalis muscles is inevitable to access the osteotomy line during genial surgery. As the mentalis muscles elevate the central lower lip and support the lip vertically, inadvertent scarring or lengthening of these muscles may lead to lip incompetence and may increase the lower incisor exposure that will cause an unaesthetic result. The aim of this study was to evaluate the extent of lip ptosis, lower incisor exposure and other soft tissue changes following different types of osseous genioplasty procedures.

**METHODS:** Thirty-three patients (21 females, 12 males) were included in this study. Patients were classified into four groups with respect to their genial movement type as genial setback (n:10), genial advancement (n:10), vertical reduction (n:9) and horizontal reduction (n:4). Preoperative and postoperative lateral cephalograms were analyzed to evaluate the horizontal and vertical soft tissue changes of the lower lip and chin in the four genioplasty groups. The statistical evaluations were performed with Regression Analysis.

**RESULTS:** The mean increase in the lower incisor exposure (LIE) was 2,05 mm. LIE and soft tissue thickness at pogonion (PgTS) were increased significantly in all patients ( $p < 0.05$ ). Statistically significant differences for lower lip length (LLL) and vertical position of soft tissue supramentale (VPSms) values were detected in patients who were undergone reduction genioplasties ( $p < 0.05$ ).

**DISCUSSION:** Surgical procedures requiring the mentalis muscle release cause a 2.05 mm increase in lower incisor exposure. Vertical positional alterations of the lower lip were especially observed following the reduction genioplasties. Clinician should be aware of this consequence in the course of treatment planning.

**Keywords:** Chin ptosis, genioplasty, incisor exposure



**OP-43****ALVEOLAR BONE GRAFTING IN CLEFT PATIENTS: OUR CLINICAL APPROACH**

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The patient with cleft lip and palate has a complex skeletal deformity that usually requires multiple procedures, starting in infancy, and continuing through puberty. The reconstruction of a secondary alveolar cleft requires the use of autogenous bone grafting for closing the oronasal fistula, and providing bony support for dentition, the nasal alar base, and lip. The success of alveolar bone grafting is important for post surgery orthodontic treatments, stability and retention of the teeth adjacent to the cleft, and improvement of occlusion. Consequently; anterior iliac bone graft is preferred to the larger volume and improved quality. Twelve patients who ages from 8 to 26 were included in this study at the Ankara University Faculty of Dentistry, Oral and Maxillofacial Surgery Department between April 2012 to January 2013. Ten patients had unilateral cleft defects and two patients had bilateral cleft defects. In conclusion; harvesting cancellous bone from the anterior iliac crest in young patients is well-tolerated, allow early resumption of normal activities, has no morbidity and a reasonable esthetic outcome.

**Keywords:** cleft, alveolar bone grafting

**OP-44****USING OF INTRAOPERATIVE C – ARM DIGITAL RADIOGRAPHY FOR REMOVING OF LOST ORTHODONTIC BRACKET DURING ORTHOGNATHIC SURGERY: REPORT OF A RARE CHALLENGING CASE**

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Preoperative orthodontic is an essential phase for about all orthognathic surgeries. It can facilitate surgical repositioning of bony segments by increasing of dental discrepancies. Correction of dentoalveolar inclinations improves surgeons' ability to proper repositioning of osteotomized bony compartments. Adequate post operative dental occlusion may have effective influences on post operative surgical relaps. Banded and bonded brackets are routinely used in orthodontic treatments. They are useful fixation device for temporary intermaxillary fixation intraoperatively and also for final maxillomandibular fixation and elastic therapy. Both brackets have their own advantage and disadvantages. Bonded brackets offers improved periodontal health and patients comfort. Chance of debonding and failure might be greater during orthognathic surgical procedures. Failure and dislodgment of orthodontic brackets into the airway route or surgical wound could be associated with high risk of contamination, severe complications and medico legal consequences. Displacement of debonded bracket into the surgical osteotomy site is extremely rare. In this presentation author will report a rare challenging case and using of C – arm digital radiography for removing of dislodged orthodontic bracket intraoperatively. Technique of management and surgico-radiographic approach will report by illustrative slides.

**Keywords:** orthognathic, complications, c-arm radiography

**OP-45****DESIGN AND PRODUCTION OF A NOVEL COMPUTER ASSISTED, PATIENT SPECIFIC SAGITTAL SPLIT OSTEOTOMY GUIDE AND SOFT TISSUE RETRACTOR**

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Sagittal split osteotomy (SSO) is a maxillofacial surgery procedure that is used to correct mandibular prognathism, mandible retrusion or asymmetry. During the SSO operation, using the sharp rotary tools for



the osteotomy can induce complications mostly during the osteotomy of the medial side of the mandibular ramus. In this study, to decrease the SSO complications, it was aimed to design and product a novel computer assisted, patient specific sagittal split osteotomy guide and soft tissue retractor. To achieve this goal first, computed tomography images of a human cadaveric mandible were digitally converted into a three dimensional (3D) model. Then, a case-specific 3D model of the product was designed onto the surface of the cadaveric mandible by taking both the osteotomy line and geometric dimensions of the mandible into consideration. Finally, created 3D model of the product were manufactured using the metal laser sintering method. This instrument would be used to ensure that the osteotomy, which is planned in the computer-aided preoperative preparations, is applied correctly in the operation. The use of that instrument during the SSO would shorten the operation duration and time need for the general anesthesia which results in less time for the exposure to the bacterial contamination. It would also reduce the complications and the operation costs due to shorter operation time, as well as the corticosteroid need given for the edema control. The postoperative hospitalization period and the increase of the healing process would also be decreased.

**Keywords:** sagittal split osteotomy, patient specific sagittal split osteotomy guide, soft tissue retractor, laser sintering

#### OP-46

### MAXILLARY ANTERIOR SEGMENTAL OSTEOTOMY: A META ANALYSIS OF THE LITERATURE WITH THE CONCURRENT 16 CASES

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**AIM:** To evaluate predictability, complications and patient satisfaction of anterior maxillary segmental osteotomy (ASO).

**MATERIAL-METHODS:** A web based literature research was performed in Pubmed, Ovid and Medline databases in terms of maxillary anterior segmental osteotomy, wunderer approach, wasmund osteotomy, complication, patient satisfaction and follow-up. In addition 16 consecutive cases that treated authors' departments were evaluated in the same manner.

**RESULTS:** A total number of 126 articles were evaluated. Palatal tear (7.2%), devitalization of adjacent teeth (0.4%), non-union (0.4%), periodontal problems (2%), oro-nasal communication (0.1%), temporary neurosensory deficit (1.6%) were the main complications of ASO. In the consecutive cases of authors' departments periodontal problem (12.5%) and insufficient esthetical appearance were noted (6%).

**CONCLUSION:** Although it's safe and predictable procedure, the awareness of complications during ASO is important.

**Keywords:** complication, facial correction, maxillary anterior segmental osteotomy, meta analysis



OP-47

**ORTHOGNATHIC SURGERY POSSIBILITIES AT PATIENTS WITHOUT PRE-ORTHODONTIC TREATMENT**

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**AIM OF THE STUDY:** Is to show the possibilities of correction of these deformities only with surgical treatment, without pre- orthodontic treatment.

**MATERIAL-METHODS:** We have analyzed 103 patients operated in the Clinic of Maxillofacial Surgery and at ORO-FACE Polyclinic in Ferizaj.

**RESULTS:** Females were 69% of patients. The interventions most often have been made in mandible in 43% of cases, in the maxilla 22.% and bimaxillary intervention was 35 %. The most common anomaly that has been treated was progenia, apertognathia, retrognathia, laterogenia, retrogenia, protrusion of maxilla and different bimaxillary anomalies. Overall number of patients 53.4% of them have declared that they have functional problems during chewing food, 20.3% the main problem was speech and 26.2% have said just aesthetic concerns, but the motive for the surgical intervention differ from the real concern of the patients and in the most cases the patients have done the intervention for the aesthetic reason 85.4, due to improvement of chewing function 8.2% and speech problems in 6.2% of the cases. With surgical interventions have been very satisfied 85.4% of patients, partially satisfied were 10.6% and 4% were not satisfied with the intervention. Post-operated complications were: relapse in 6.7% of cases, in 73.7% of cases have had evident enervation of sensibility on n.alveolaris inferior who persisted from 7 days to 3 months after intervention. In 11.6% of the cases have had pain on TMJ that had persisted three weeks to 9 months after opening the mouth. We had one accidental rupture of the N. alveolaris inf. and one case the rupture of N. mantalis.

**CONCLUSION:** Orthognathic surgery offers good opportunities for improvement of the functional and aesthetic problems for the patients, but the lack of the pre operative orthodontic treatment may not be compensated always only with surgery.

**Keywords:** orthognathic surgery, ortodontic treatment

OP-48

**EVALUATION OF THE BENIGN PAROXYSMAL POSITIONAL VERTIGO FOLLOWING LE FORT I OSTEOTOMY: PRELIMINARY STUDY**

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**BACKGROUND:** Orthognathic surgery is widely used to correct congenital and acquired dentofacial deformities. In orthognathic surgery Le Fort I osteotomy is widely used, to correct maxillary hypoplasia, hyperplasia, and in the management of skeletal anterior open bite. During the pterygoid osteotomy, the surgical trauma induced by percussion with the surgical mallet and osteotomes, along with hyperextension of the neck, can displace otoliths into the semicircular channel and result in the appearance of benign paroxysmal positional vertigo (BPPV). BPPV is a common vestibular end organ disorder characterized by short, often recurrent episodes of vertigo that are triggered by certain head movements mostly in the plane of the posterior semicircular canals. Head trauma is one of the known cause of BPPV. The aim of this study was to evaluate the potential risk of BPPV occurrence in individuals who underwent Le Fort I osteotomy

**METHODS:** A total of 12 patients were studied, with an age range of 18-32 years. Dix-Hallpike manoeuvre, positional tests and Vestibular Evoked Myogenic Potential (VEMP) tests were performed one week before surgery, one week after surgery and one month after surgery. Surgical procedure was Le Fort I osteotomy with advancement or impaction or combination of both with or without mandibular surgeries.



**RESULTS:** According to the Dix-Hallpike manoeuvre and positional tests five patients had nystagmus one week after surgery. In two patients prolonged VEMP results was observed compared with preoperative results. Two patients both had prolonged VEMP results and nystagmus. Although, none of the patients diagnosed as BPPV, conductive hearing loss was observed in one patient.

**CONCLUSION:** According to our preliminary results, mild changes in vestibular system are possible, but these changes were clinically insignificant within the small limits of ongoing study.

**Keywords:** BPPV, le fort 1, orthognathic surgery, vertigo

#### OP-49

### CONE BEAM COMPUTED TOMOGRAPHIC ANALYSIS OF MANDIBULAR MORPHOLOGY IN RELATION TO SAGITTAL SPLIT RAMUS OSTEOTOMY

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**OBJECTIVES:** Mandibular morphology is important as it relates to the occurrence of several complications during sagittal split ramus osteotomy (SSRO). This study aims to examine the mandibular morphology at possible vertical osteotomy sites for SSRO.

**DESIGN:** Using Cone Beam Computed Tomography (CBCT) records of 821 patients, the distance from the buccal cortex to the inferior alveolar canal (IAC) (A), the distance from lingual cortex to IAC (B), the distance from the cortex of inferior border to IAC (C), and the thickness of inferior cortical bone (D) were measured on three different sections: 1, just between the first and second molar; 2, between the second and third molar; and 3, just distal to the third molar.

**RESULTS:** 303 hemimandibles from 200 patients were examined. Significant difference was found between different sections, distances and sexes ( $P=0.00$ ). A significantly increased from posterior sections to the anterior in both men and woman, and in total. B was significantly greater in section 3, in both men and woman. C increased from anterior sections to posterior in total. This distance was significantly greater in section 3, in both sexes. D significantly increased from posterior sections to the anterior, in men, women, and in total.

**CONCLUSION:** The results of this study suggest that the safest position for the vertical osteotomy is between the second and third molars. However, it is strongly recommended to perform a CT examination, to determine the bone thickness at possible osteotomy sites.

**Keywords:** sagittal split ramus osteotomy, mandibular morphology, inferior alveolar canal



## OP-50

## THE APPLICATION OF OZONOTHERAPY IN THE TREATMENT OF SALIVARY GLAND CHRONIC DISEASES

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Chronic inflammation of the salivary glands constitute 3-24% of salivary gland diseases. Despite of numerous clinical researches the treatment of salivary glands is still challenge because of unknown ethiology. This type of diseases occurs when hormonal metabolism is impaired. Chronic sialodenites in pediatric patients could be recognised as result of inadequate treatment of epidemic sialodenites. Cell death or weaking of the blood flow in salivary gland can be the reason for this disease. While research in 60 patients both the wall of blood and spit was destroyed and antioksidant system was educated too.

**MATERIAL AND METHODS:** The patients were educated in two groups. The main group was consisting of 40 patients, 20 of them were treated intragland, and other 20 were treated by fiziology serum introvenously injection or by blood ozone therapy. The control group patients were treated by simple salivary gland treatments. During ozone therapy the active molecules with elements of the blood oxygenation was studied based on LPO. We used ozone intravenously and intragland for the patients with chronic sialodenitis. In the End the patients who was treated by ozone therapy the relapse wasn't detected. In 5 patients who were treated with ozone therapy after 2 years relapse was detected, the patient felt uncomfortable located in salivary gland, so ozone therapy was injected again. After ozone therapy side effects wasn't occurred.

**Keywords:** salivary gland, ozonotherapy

## OP-51

## MANAGEMENT OF CENTRAL GIANT CELL LESIONS OF THE JAWS

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The term central giant cell lesion (CGCLs) covers a group of non-odontogenic and non-osteogenic jaw tumors which share a common histologic characteristic containing multinucleated giant cells. These lesions occur more frequently in females. Mandible is involved more than maxilla and mandibular premolar area is the most common area involved. CGCLs are classified as aggressive and non-aggressive types. Most of the non-aggressive lesions are painless, slow growing which are discovered in routine dental radiographs. On the other hand, aggressive lesions are accompanied by pain and rapid growth which can lead to root resorption and extensive swelling. Radiographic findings are different ranging from small unilocular to large multilocular lesions. Although simple surgical curettage is the treatment of choice in non-aggressive lesions, it has a high recurrence rate in aggressive tumors. The purpose of this lecture is to review the different aspects of CGCLs of the jaws and a case of unusual aggressive CGCL is also presented.

**Keywords:** central giant cell lesions, osteoclastoma, benign nonodontogenic tumors, jaw lesions



## OP-52

**TREATMENT OF BISPHOSPHONATE RELATED OSTEONECROSIS OF THE JAW: A CASE REPORT**

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Bisphosphonates are compounds widely used in the treatment of various metabolic and malignant bone disease. Despite the clinical benefits, osteonecrosis of the jaws has recently emerged as a significant complication in a subset of patients receiving these drugs. Bisphosphonate-related osteonecrosis of the jaw (BRONJ) may be treated conservatively or by surgery. Effective surgery with the intention of achieving vital bone margins are of crucial importance in the management of BRONJ, although prevention still is the most important aspect of this condition. Since hyperbaric oxygen (HBO) is known to be effective adjunctive therapy for the treatment of chronic osteomyelitis and osteoradionecrosis of the jaw, then, it has also been applied to the treatment of BRONJ. Some other authors state that surgery should be deferred as long as possible. The choice between conservative treatment and surgery is a critical issue and must be made on an individual basis. We have reported 47 years old female patient suffering from bilateral BRONJ in the mandibula and treated with surgery. Firstly, the patient had drug holiday, antimicrobial therapy and HBO therapy. Then the patient was operated. Right side resulted with soft tissue break down and necrotic bone expose. Second surgery was planned for recurrence of right side. Necrotic bone was completely excised until vital bone appeared. Finally, both side cured with soft tissue closure.

**Keywords:** BRONJ, HBO, osteonecrosis

## OP-53

**DO ALKALINE ENVIRONMENT PREVENT THE DEVELOPMENT OF BRONJ? : PRELIMINARY RESULTS OF AN EXPERIMENTAL STUDY**

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**INTRODUCTION:** Bisphosphonate-related osteonecrosis of the jaws (BRONJ) is an emerging topic in oral and maxillofacial surgery, the exact pathomechanism of which has not been resolved. In this article, it is argued that inflammation plays a major role in the pathomechanism of BRONJ and that locally applied alkaline substances may prevent the development of BRONJ.

**STUDY DESIGN:** The efficiency of locally applied Sodium bicarbonate was evaluated after chronic BP administration that was followed by tooth extraction.

**RESULTS:** BRONJ was not observed in any of the subjects in control groups and bicarbonate group while BRONJ was observed in group with tooth extraction. In addition statistically significant difference was observed in the presence and severity of the inflammation (PSI) that was also lower in bicarbonate applied group than tooth extraction group alone (p<0.01)

**CONCLUSION:** The administration of sodium bicarbonate following tooth extraction had positive effects on the resolution of BRONJ, but further studies are required to verify its effectiveness in the treatment of BRONJ.

**Keywords:** alkaline substances, bisphosphonate-related osteonecrosis of the jaws, pH, tooth extraction



OP-54

**A NEW AND SIMPLE CLASSIFICATION METHOD FOR CLEFT LIP & PALATE PATIENTS; MARMARA CLASSIFICATION**

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**OBJECTIVES:** Our purpose in this study was to prepare a new classification method by means of 3D models in order to determine the type and the severity of the cleft in new born babies with cleft lip and palate.

**MATERIAL-METHODS:** The method was based on the 243 initial palatal models of new born cleft lip and palate babies admitted to our clinic for treatment between the years 2000-2011. The stone models were scanned with 3 Shape R 700 laser scanner to obtain 3D digital models. During the description of the cleft type, kernahan and stark (69) classification method was taken as reference. In order to determine the severity some measurements were done on 3D models by two researchers; 1. Cleft width, 2. Cleft length, 3. Segment dislocation.

**RESULTS:** The new classification method is composed of three steps and 5 numbers. The first step is referred to the type of the cleft. The second and third steps are referred to the cleft width and dislocation amounts respectively. As the number increases the severity of the cleft increases.

**CONCLUSION:** As a result of this study we formed a new classification method that can be easily understood and applied by the disciplines involved in the treatment of the cleft lip-palate babies. The new method can be easily archived and provides a detailed information about the type and severity of the cleft. However, our method can be taken as reference in order to form a new classification method for the evaluation of the extra-oral tissues.

**Keywords:** cleft, cleft lip and palate, classification, digital model

OP-55

**THE ROLE OF CORONOIDECTOMY IN TEMPOROMANDIBULAR JOINT ANKYLOSIS CASES**

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Temporomandibular joint ankylosis is described as bony or fibrous adhesion of the joint components accompanied by a limitation in mouth opening, and influencing mandibular growth. Surgical treatment procedures include arthroplasty with or without interpositional materials, costochondral rib graft, distraction osteogenesis, and alloplastic joint replacement. Regarding to management of coronoid processes during procedure, coronoidotomy, wedge resection and coronoidectomy options have been discussed in the literature. Despite the limited existence of data about the coincidence of ectopic bone formation, the risk is considered high for the ostectomised gap that left unfilled as the resultant haematoma provides the environment for pluripotential cells and the hypoxic environment for cartilage and bone differentiation. Also, a prolonged ankylosis period leads to muscle atrophy and secondary elongation of the coronoid process consecutively results in limited mandibular mobility. Therefore, the clinician should be aware that coronoidotomy carries the potential of re-ankylosis due to ectopic bone formation if segments of the coronoid process remain in situ. In this report, the authors present two patients applied to our clinic with complaint of recurrent severely restricted mouth opening after being operated with the diagnosis of TMJ ankylosis. In both patients, silastic-silicone implants were used as interpositional materials between resected bone segments. Regarding to failure on achieving a stabile function, the importance of coronoidectomy in treating TMJ ankylosis cases is emphasized.

**Keywords:** ankylosis, coronoidectomy, temporomandibular joint



OP-56

**IMPLEMENTATION OF LEFORT I "M" OSTEOTOMY FOR MAXILLARY INFERIOR REPOSITIONING**

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True vertical maxillary deficiency is relatively rare, but it is the main characteristic of short face syndrome due to maxillary hypoplasia and a concave profile is frequently present. In these patients, anterior and inferior repositioning of the maxilla is indicated to but this procedure has been described as the unstable surgery if performed with standart Le Fort I osteotomy, due to insufficient bony contact at the osteotomy site and bone gaps. Here we present 2 cases with maxillary sagittal and vertical deficiency operated with modified technique, called The Le Fort I stepped sliding osteotomy or M osteotomy to prevent relapse and to maintain long-term stability for optimum results.



Abstracts of the 7th International Congress of the Association of Child and Adolescent Gastroenterology and Hepatology (AÇBiD) 2013, held in Istanbul, Turkey, from May 29 to June 2, 2013. The congress was organized by the Turkish Society of Gastroenterology and Hepatology (TSGH) and the Turkish Society of Pediatric Gastroenterology and Hepatology (TSPGH). The main theme of the congress was "New Approaches in Pediatric Gastroenterology and Hepatology". The congress was attended by over 1000 participants from various countries. The congress was held in a grand hotel in Istanbul. The congress was a great success and provided a valuable opportunity for pediatric gastroenterologists and hepatologists to meet and discuss the latest developments in their field.



**POSTER PRESENTATIONS**



**PP-001**

**COMPARISON OF PAIN, TRISMUS, SWELLING, IN PRIMARY AND SECONDARY WOUND CLOSURE AFTER MANDIBULAR THIRD MOLAR SURGERY**

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**BACKGROUND:** Surgical removal of impacted mandibular third molars by primary wound closure procedure may result in postoperative edema, facial swelling, pain and restriction of mouth opening. Different types of closure may be associated with various complications. The aim of this study was to compare the effect of secondary closure with primary closure after removal of fully-impacted mandibular third molars.

**METHODS AND MATERIALS:** In this randomized double blind clinical trial, the efficacy of secondary closure in the reduction of postoperative pain, swelling and trismus was assessed in patients undergoing the extraction of bilaterally-impacted mandibular third molar teeth. Thirty seven patients with bilaterally-impacted mandibular third molars with the same amount of eruption and angulation on both sides, confirmed with panoramic radiograph, were selected. Each patient underwent two operations. In the first operation, the socket was closed by a hermetically sutured flap. In the second one, the socket was left un-sutured to promote secondary healing. The patients were evaluated by one examiner for maximum mouth opening, facial swelling, and pain on day two and seven following surgery. Data was analyzed with SPSS 13.0 computer software.

**RESULTS:** There was a statistically significant difference in pain and swelling on day two and seven. The amount of trismus was also significantly different on day seven, but not on day two.

**CONCLUSION:** The use of secondary closure seems to be useful in reducing postoperative discomfort following third molar surgery.

**Keywords:** Impacted third molar, Swelling, Secondary epithelialization

**PP-002**

**PROSPECTIVE COMPARATIVE STUDY OF ONDANSETRON AND METOCLOPRAMIDE AS ANTIEMETIC PROPHYLAXY IN PATIENTS UNDERGOING OROMAXILLOFACIAL SURGERY**

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**PURPOSE:** To comparison the efficacy of ondansetron and metoclopramide, administered for prophylaxis of Prospective Nausea and vomiting in patients undergoing oromaxillofacial surgery

**METHODS:** Following institutional ethics board approval and patient consent, Studied 100 Patients, undergoing maxillofacial Surgery, Patients were allocated randomly to receive one of two treatment regimens: Ondansetron 4 mg and patients which received metoclopramide. Following a standardized general anesthesia, patients were interviewed and assessed for PONV at various times. **RESULT:** Following final analysis of the data this study showed that during the first 24 hours postoperative period, the patients receiving ondansetron following the induction of general anesthesia had an 11% incidence of emesis compared to 28% in the group which didn't receive ondansetron (instead received metoclopramide).

**CONCLUSION:** The study demonstrated that ondansetron (0.1 mg/kg) was quite effective in preventing PONV (in compared with metoclopramide) Earlier Studies have examined the efficacy of ondansetron.

**Keywords:** ondansetron, metoclopramide, antiemetic



**PP-003**

**THE EFFECT OF TRANEXAMIC ACID ON BLOOD LOSS**

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**INTRODUCTION:** Orthognathic surgery is the main surgical treatment for correction of dentofacial deformities, which is accompanied with significant bleeding. Intra-operative blood loss in Orthognathic surgeries, sometimes requires blood transfusion. However, this procedure should be limited because of the concomitant side effects. The main objective of this study is to investigate the effect of tranexamic acid on blood loss.

**MATERIALS-METHODS:** 16 healthy patients scheduled for bimaxillary osteotomy were included in this double-blinded, randomized, controlled trial. 8 patients received a bolus of tranexamic acid (15 mg/kg) and 8 received normal saline before surgery. The amount of blood loss was recorded.

**RESULTS:** The mean blood loss was 450+ 220 cc in cases and 830+ 360 cc in controls. The results showed a statistically significant reduction in blood loss in the case group (P value <0.05)

**CONCLUSION:** This study indicates that preoperative administration of Tranexamic acid reduces blood loss.

**Keywords:** Tranexamic Acid, Blood Loss, Orthognathic

**PP-004**

**CENTRAL GIANT CELL GRANULOMA OF THE MANDIBLE IN PEDIATRIC AGE: A CASE REPORT**

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**INTRODUCTION:** Central giant cell granuloma (CGCG) is a benign lesion of jaws of unknown etiology. It can locally be destructive. Clinically, CGCG has a female predilection and it may occur at any age but is more commonly seen in the first three decades of life. Lesions usually affect the mandible and cross the midline. In this case report, a lesion that located in mandible in a child with permanent dentition.

**CASE:** A 13 year old male patient was referred to our hospital for restorative treatment of caries. Intraoral examination showed a purple-pink expansive mass in the region of lower left incisor teeth. Extra orally, no lymphadenopathy was identified. Radiographic evaluation showed migrations of adjacent roots. Panoramic view showed a well-defined, lytic, unilocular radioluceny in mandible. Internal consultation was obtained. The parathormone had not any role in this case. The lesion was surgically removed under local anaesthesia and the specimen was sent to histopathology for evaluation. Histopathologic result gave us central giant cell granuloma diagnosis.

**DISCUSSION:** Central giant cell granuloma is diagnosed by a combination of clinical and radiologic findings and confirmed by histopathology. Some cases are symptomless and are first detected on routine radiographical examinations. The early and precise diagnosis of CGCG allows conservative management with minimal risk to the adjacent tooth or bone. Surgery is the most accepted method of treating the condition. Incidence of recurrence after surgery is 4-20%, whereas locally aggressive giant cell cases have a higher recurrence rate and it usually occurs due to incomplete removal of tumor. In our case, the patient has reached 12 months follow-up period. There is no complication and recurrence in this stage. Adjacent roots have become almost parallel to each other after surgery. The region is doing fine bone healing.

**Keywords:** Central Giant Cell Granuloma, Mandible, Pediatric.



**PP-005**  
**THE EFFECT OF SMOKING ON PATHOLOGICAL POTENTIAL OF ASYMPTOMATIC FULLY IMPACTED LOWER THIRD MOLAR FOLLICLES**

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One of the common surgical procedure in dentistry is removal of the impacted third molars. There is still no general agreement about treatment of the asymptomatic fully impacted third molars among surgeons. Prophylactic removal of asymptomatic third molars has been generated much discussion in dentistry. Pericoronal follicles of fully impacted third molars can lead to the development of cystic and tumoral alterations. Ki67 is a protein which increases in epithelial cell proliferation. It is used as a proliferation marker in many tissues. P53 is a tumor suppressor gene which increases in nucleus at early stages of tumoral alterations. It also can be detected at early stages of cancer and some benign pathologies. Tobacco smoke contains many carcinogen agents and they can stimulate the cell proliferation and tumoral alteration chain. It causes increased intensity and distribution of Ki67 and p53 in tissues. The aim of this study is to compare Ki67 and p53 expression intensity and distribution among the smokers' and the non-smokers' pericoronal follicles of the fully impacted mandibular third molars. Sixty pericoronal follicles were collected from asymptomatic mandibular third molars of 29 non-smoker and 31 smoker patients. Specimens were examined immunohistochemically using monoclonal antibody against Ki67 and p53. The expression of Ki67 and p53 in smokers' pericoronal tissues was statistically higher than non-smokers. The high expression of Ki67 was detected at suprabasal layers of pericoronal follicle epithelium. Also, positive correlation was detected between Ki67 and p53 scores. The results of our study suggest that, the risk of pathological differentiation in pericoronal tissues of smoker patients is higher than the non-smoker patients. For that reason, smoking may taken into account for the prophylactic removal of the asymptomatic fully impacted mandibular third molars.

**Keywords:** asymptomatic, impacted mandibular third molar, Ki67, p53, smoking.

**PP-006**  
**THE WAY TO CHOOSE THE TREATMENT TACTICS IN THE PATIENTS WITH HEMANGIOMES**

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The hemangiomas have their special place among the congenital pathologies. The archive materials of 84 patients, who were treated before for hemangioma have been studied. 108 of them (66(61/1%) women, 42(38/89%) men) were under our treatment. 27(25%) patients mixed and 14(3%) from intra bone type of hemangioma. The "homeostatic forceps" and the functional bandage" were employed in the treatment of soft tissue hemangioma. 12.97% patients with intra bone hemangioma were treated according to the new method which was employed first by us. The patents for all of those methods are available in the country and abroad. Thus, in the children from the first days, it is recommended to carry out the underlined treatment don't keeping the active observation position.

**Keywords:** Hemangioma, homeostatic forceps, intra bone hemangioma



PP-007

**MANAGEMENT OF ORAL SURGERY IN PATIENTS WITH HEREDITARY ANGIOEDEMAS: A CASE REPORT**

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**INTRODUCTION:** Angioedema is a pathologic condition first described by Quincke and Osler. It can be genetically determined or acquired, and it is caused by a vascular reaction induced by deficiency or functional alteration of the C1 inhibitor (C1-INH), an enzyme involved in the regulation of complement, contact, fibrinolytic, and coagulation systems. Two forms of angioedema have been described in the literature: hereditary angioedema and acquired or idiopathic angioedema. Hereditary angio-oedema (HAE) is an autosomal dominant condition characterised by recurrent episodes of potentially life-threatening perioral or laryngeal oedema. Dental treatment for this group of patients should therefore be given in hospital with explicit advice on observation after operation and what to do in an emergency.

**CASE:** A 29-year-old man was referred to oral surgery for an extraction of the right lower 1st molar. The patient had suffered spontaneous pain in the tooth, and an x-ray showed severe caries and periodontitis in and around the tooth. He had HAE and this was diagnosed from low serum levels of C1-INH and C1-INH activity. Administration of 1000 units of C1-INH concentration (CETOR, Sanquin, Holland) was started just before the extraction and lasted for 1 hour. The teeth was extracted and postoperatively no facial or laryngeal edema was seen in the first 24 hours.

**DISCUSSION:** Laryngeal edema, a life-threatening symptom, occurs predominantly after oral surgery, such as teeth extraction, in patients with HAE. Prophylaxis before dental surgery has been performed to varying degrees with fresh frozen plasma, antifibrinolytics, attenuated androgens, and C1-INH concentrate with varying degrees of success. Finally, it is important to perform surgery in a hospital facility to ensure, if necessary, prompt emergency intervention and supervision of possible complications.

**Keywords:** oral surgery, angioedema, C1-INH

PP-008

**MANAGEMENT OF A HUGE CENTRAL GIANT CELL GRANULOMA OF MANDIBLE: A CASE REPORT**

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The Central Giant Cell Lesion is a benign but potentially aggressive proliferation of fibroblasts and multinucleated giant cells that cause osteolysis and reactive bone formation. It may exhibit aggressive biologic behavior, characterized by localized swelling, pain, rapid growth, bony expansion, cortical perforation, tooth displacement, and root resorption. Radiographically, it is a radiolucent lesion that may be either unilocular or multilocular. The site most frequently involved is the anterior part of mandible. The most often applied are thorough simple curettage, curettage with peripheral ostectomy, and en bloc resection. This report presents the management of Central Giant Cell Lesion in a 50 year-old women with its surgical treatments. The lesion was located in the mandibular symphysis region between right to left premolars. Mean lesion size on radiography was 40mm x 20mm. At first, incisional biopsy of the mass was performed and sent to pathology. The microscopic view of the sections indicated a giant cell rich lesion. The diagnosis was compatible with Central Giant Cell Lesion. The mass was removed by enucleation and curettage through an intraoral approach without complication. The wound was closed primarily. Surgical treatment was performed successfully and during the follow-up period, no recurrence of the lesion

**Keywords:** Central Giant Cell Lesion



## PP-009

**UNUSUAL UNILATERAL FRACTURE OF THE CONDYLAR AND CORONOID PROCESSES OF THE MANDIBLE:  
A CASE REPORT**

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The incidence of condylar fracture is very high and most are not caused by direct trauma, on the other hand coronoid process fracture is reported rarely than other parts of the mandible. We reported on a case of right subcondylar and coronoid fractures without an evidence of direct trauma to the zygomatic area or an indirect trauma to the mandibular corpus or sympheseal region. The possible cause was acute reflex contraction of the temporalis muscles leading to stress coronoid and condylar fractures. Fractured fragments of the coronoid and condylar processes were fixed with mini plates. The patient was followed up post operatively without any esthetic or functional problems.

**Keywords:** condylar process, coronoid process, fracture

## PP-010

**SURGICAL ACRYLIC GUIDE FOR MAXILLARY DISTRACTOR POSITION**

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Maxillary hypoplasia is a deficiency that usually manifests in more than one plane, requiring 3-dimensional correction of the deformity. Maxillary distraction osteogenesis can find its indication in severe Angle class III malocclusions and severe maxillary hypoplasia among some cleft patients and other craniofacial deformities. During Lefort 1 distraction osteogenesis, placement of the distractor in the correct position and then disconnecting it before the osteotomy is a difficult procedure and lengthens the operation time. A surgical guide may be useful for carrying the right position obtained on the 3D model to the patients maxilla. At the same time, it may simplify the technical difficulties and may shorten the operation time. We present an transparent acrylic surgical guide for these purposes for Lefort 1 distraction osteogenesis. By using this transparent acrylic surgical guide, it is possible to carry the contoured distractor plates, aligned distractors and calibrated distraction vectors from the 3D model to the patient's maxilla with the aid of the screw holes marked on the guide safely.

**Keywords:** surgical guide, maxillary distractor



**PP-011****CONGENITAL GRANULAR CELL EPULIS: A REPORT OF AN UNEXPECTED FEATURE WITH HISTOPATHOLOGIC AND IMMUNOHISTOCHEMICAL EXAMINATION**

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The congenital granular cell epulis is a very rare benign tumor arising from the alveolar ridges of newborns. Although several etiologic theories, like myoblastic, odontogenic, neurogenic, fibroblastic, histologic and endocrinologic possibilities have been proposed; the exact mechanism in the development of such a lesion remains elusive. In this presentation, a slowly growing congenital granular cell epulis of a 50-day-old male newborn encountered in the mandible was reported in the light of histopathologic and immunohistochemical examination. Presence of congenital epulis in the mandible and in males is a very rare entity. Furthermore, growth of congenital epulis after birth was an unexpected feature. In conclusion, it is important to allow the clinicians to be aware of this congenital tumor and its presentation with the underlined unexpected feature, so that this entity will be more easily recognized and relevant information given to patients.

**Keywords:** congenital granular cell epulis, immunohistochemistry, newborn

**PP-012****ALTERNATIVE SURGICAL MANAGEMENT OF OROANTRAL FISTULA USING AURICULAR CARTILAGE: A CASE REPORT**

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One of the clinical complications encountered by oral and maxillofacial surgeons is oroantral communication (OAC) with subsequent formation of oroantral fistula (OAF). Many techniques and treatment modalities have been described for the management of OAC and OAF. There are advantages and disadvantages of all these techniques. We report a 21-year-old male patient who was admitted to our department for the presence of an OAF and was treated using an auricular cartilage graft.

**Keywords:** Auricular cartilage, oroantral communication, oroantral fistula

**PP-013****SURGICAL TREATMENT OF EPULIS FISSURATUM (A CASE REPORT)**

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Ankara Mevki Asker Hastanesi

**INTRODUCTION:** Inflammatory fibrous hyperplasia (epulis fissuratum) and inflammatory papillary hyperplasia can be named as oral mucosal diseases caused by ill-fitting denture wearing. Epulis fissuratum is caused by low-intensity chronic trauma usually from ill-fitting dentures or even parafunctional habits. In this case report, surgical treatment of a patient having epulis fissuratum in the alveolar vestibule of lower jaw and a latter prosthetic reconstruction is presented

**CASE:** A 58 year-old male patient has applied to the dental clinic requesting his existing removable dentures to be renewed. The clinical examination showed a completely edentulous mouth and presented a huge hyperplastic lesion over the alveolar ridge extending to the vestibular sulcus especially in the lower anterior region. The patient claimed that he had been using his dentures for a long period of time. The fibrous tissue was excised within routine surgical procedures and after the healing period, the dentures were renewed.



**DISCUSSION:** Most cases of epulis fissuratum occur in the anterior region of the jaws. The cause of epulis fissuratum is chronic low-grade irritation from an ill-fitting denture. Frequently, this is the consequence of resorption of the alveolar ridge so that the denture moves further into the vestibular mucosa, creating an inflammatory fibrous hyperplasia that proliferates over the flange. Typically, patients with epulis fissuratum are asymptomatic. Surgical excision is the definitive treatment of epulis fissuratum, always with appropriate prosthetic reconstruction. The treatment is usually performed with conventional surgery excision with scalpel.

**CONCLUSION:** It is well known that hyperplasia related to denture use originate from chronic irritation. To avoid denture induced hyperplasia, dentures must be examined more often after their construction and delivery.

**Keywords:** complete dentures, denture-induced lesions, epulis fissuratum

**PP-014**

**BONE COMPRESSION TECHNIQUE FACILITATES IMPLANT SURGERY ON ATROPHIC EDENTULOUS RIDGE: A CASE REPORT**

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**Objectives:** Implant-prosthetic rehabilitation of atrophic maxilla remains a challenging problem and the operative technique must be adapted to the kind of resorption that exists. The resorption pattern is not always the same; sometimes it is pronounced in the sagittal direction and sometimes in the vertical direction. Alveolar bone splitting and implant placement have been proposed for patients with severe atrophy of the maxilla mainly in the sagittal plane. Implant placement with this technique needs extra materials to be used such as grafts and membranes. The bone compression kit improves the treatment in sinus lifting and soft bone compression, beside it generates an alternative way for placing implants to the horizontally atrophic maxilla. We tried to rehabilitate edentulous maxilla and mandible with a simple and comfortable surgery procedure.

**MATERIALS AND METHODS:** A 40 years old female patient with edentulous atrophic maxilla and mandible admitted to our clinic. There were sufficient bone height and nearly 4mm bone width all over the alveolar ridge and we decided to use an atraumatic surgery. Implant slots were formed with bone compression kit.

**RESULTS:** Maxillar and mandibular implantation was successful. There were high primary stability on the implants. All the surfaces of the implants were surrounded with bone. There were no bone apertures on implant surrounding bone surfaces. Parallelism of the maxillar implants were provided. There were no marginal bone loss after protetic loading.

**CONCLUSIONS:** Functional and aesthetic implant supported rehabilitation in severe bone resorption, is still a trouble for the surgeon. After ridge splitting, grafts and membranes are needed in order to prevent marginal bone loss. This needs extra time and cost. Implant surgery with bone compression technique on vertically enough but horizontally less ridges will prevent traumatic osteotomy, enables increase in bone density and implant primary stability.

**Keywords:** Atrophic, bone, density, implant



PP-015

**CENTRAL GIANT CELL GRANULOMA OF THE MANDIBLE IN A 7-YEAR-OLD BOY: A CASE REPORT**Alper Kaya<sup>1</sup>, Beyza Kaya<sup>1</sup>, Ayşegül Sipahi<sup>2</sup><sup>1</sup>Department of Oral and Maxillofacial Surgery, Dentistry Faculty, Dicle University, Diyarbakir, Turkey<sup>2</sup>Department of Oral and Maxillofacial Surgery, Dentistry Faculty, Marmara University, Istanbul, Turkey

**INTRODUCTION:** Central giant cell granuloma (CGCG) is a relatively uncommon benign bony lesion of a variably aggressive nature, accounting for less than 7% of all benign jaw lesions. The origin of CGCG is unknown, but some indications implicate genetic abnormality. Importantly, a number of lesions are histologically indistinguishable from CGCG of the jaw, including brown tumor of primary or secondary hyperparathyroidism, cherubism, and a number of other inherited syndromes, such as neurofibromatosis type 1 and Noonan syndrome.

**CASE:** A 7-year-old boy referred to the Department of Oral and Maxillofacial Surgery, Dicle University, Dentistry Faculty with a 4-month history of a painless swelling in the anterior mandibular region. Intraoral examination was revealed a 3-4 cm firm swelling, with a hyperemic surface between the lower first incisors. Orthopantomograph revealed a mild radiolucency over the anterior mandibular area, displacement of the mandibular central and lateral incisors was noted, but no root resorption was observed in the affected teeth. The lesion was excised and the bone cavity was curetted under local anesthesia. The histopathological diagnosis was CGCG.

**DISCUSSION:** CGCG lesions usually grow slowly and as in this case, lesions of CGCG are painless and do not induce paresthesia. In children with mixed dentition, a pathologic lesion could be the underlying cause of regular tooth mobility and exfoliation of primary teeth and can easily be overlooked, especially in cases that are not accompanied by an obvious bony expansion.

**CONCLUSION:** The clinician needs to be aware of possible oral pathology when tooth mobility and displacement are present, and central giant cell granuloma should be considered in the differential diagnosis for children with maligned and mobile teeth.

**Keywords:** central giant cell granuloma, tumor, oral surgery

PP-016

**TREATMENT WITH MARSUPIALIZATION PARAKERATINIZED TYPE ODONTOGENIC KERATOCYST: A CASE REPORT**Cennet Neslihan Eroğlu, Serap Keskin Tunç, Volkan Kaplan

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**INTRODUCTION:** Odontogenic Keratocyst (OK) incidence is %11 of all tumors in the jaw and it fully furnished with the keratinized squamous epithelium. Keratocysts proceed without symptoms until bone expansion or infected like the other cysts. Radiologically can be determined smooth radiopaque borders and good detectable radioluceny. Most of the lesions are unilocular and presented in %40 of cases associated with crown (dentigerous cyst position). In this case lesion associated with impacted third molar tooth and treated with marsupialization.

**CASE:** 33 year old male patient consulted to our clinic complaining of pain around the mandibular right wisdom tooth. After the clinic and radiographic examination we decided to take biopsy and extract the related tooth. The pathologic diagnosis came as Parakeratinized Type Odontogenic Keratocyst. Due to the localization of the lesion (the relationship between the mandibular canal) was treated with marsupialization technique.

**DISCUSSION:** Odontogenic Keratocysts generally occur in the mandibular posterior region. Treatment procedure enucleation following marsupialization or only marsupialization are accepted a successful treatment. In this case presumptive diagnosis is considered as a dentigerous cyst. After the biopsy result we choosed the marsupialization treatment. At the end of 14 months there is no complain and finding with lesion.

**Keywords:** Keratocyst, Marsupialization, Parakeratinized.



PP-017

**OCCURENCE OF PYOGENIC GRANULOMA AROUND DENTAL IMPLANT: A CASE REPORT**

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**INTRODUCTION:** Pyogenic granuloma (PG) is a common, benign growth that often appears as a rapidly growing, bleeding bump on the skin or inside the mouth. It is composed of blood vessels and may occur at the site of minor injury. It usually appears around the teeth in response to various stimuli such as low-grade local irritation (calculus, microbial dental plaque), trauma, or female steroid hormones. We describe a case of PG related to a dental implant treated with Er-YAG laser.

**CASE:** A 34 years-old male patient had unilateral lip and palatal cleft, treated with bone grafting, alveolar distraction osteogenesis and dental implants 7 years ago, referred to our clinic again with a complaint of bleeding and mucosal hyperplasia around the implants. On intraoral examination, an exophytic nodular lesion with 2x1,5 cm in diameter was observed around the implant's soft tissue. Radiographically was seen a resorption gap between the implants and 2 mm horizontal bone loss. The above lesion was excised with Er-YAG laser (3 Watt, 25Hz, VLP mode) and the implant's surfaces were decontaminated with Er-YAG laser non-contact (1.5 Watt, 15 Hz SP mode). In this paper we discuss the advantages of using Er-YAG laser in treatment of pyogenic granuloma.

**DISCUSSION:** In this case it was the result of an inappropriate choice of a healing cap, thus allowing an accumulation of dental plaque and sustained chronic inflammation of the peri-implant tissue. We achieved complete resolution of this lesion located on the upper gingiva with diode laser without producing any complications.

**CONCLUSION:** Er-YAG laser may be a good therapeutic option for intraoral pyogenic granulomas. There was no scarring or recurrence after a year.

**Keywords:** pyogenic granuloma, dental implant, Er:YAG laser, cleft palate

PP-018

**EFFECT OF PREMEDICATION WITH IBUPROFEN AND DEXAMETHASONE ON SUCCESS RATE OF INFERIOR ALVEOLAR NERVE BLOCK FOR TEETH WITH ASYMPTOMATIC IRREVERSIBLE PULPITIS: A RANDOMIZED CLINICAL TRIAL**

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**INTRODUCTION:** The aim of this study was to compare two kinds of anti-inflammatory medicines (dexamethasone and ibuprofen) with a placebo according to their effects on the success rates of inferior alveolar nerve block (IANB) for endodontic treatment of mandibular molars with irreversible pulpitis.

**METHODS:** A total of 165 patients were divided into three groups of 55 patients each and were given a capsule of the same color and size (either a placebo of lactose powder, 400-mg ibuprofen or 0.5-mg dexamethasone). One hour after the oral administration of the capsules, all the patients received standard IANB. In patients with successful IANB, the teeth were examined with a cold pulp test; they were asked to assess their pain using the visual analog scale (VAS). Then, endodontic access cavity preparation was initiated. In case of pain during the treatment, the patients were asked to rate the pain on VAS. Success was defined as no or mild pain during treatment. Chi-squared test and ANOVA were used to compare qualitative and quantitative data between the groups.

**RESULTS:** No significant differences were found in sex between the patients in the three groups ( $p > 0.05$ ). The dexamethasone group showed significantly higher success rates compared to the placebo group ( $p = 0.001$ ). There were no significant differences between the ibuprofen and placebo groups ( $p = 0.055$ ) or between the dexamethasone and ibuprofen groups ( $p = 0.34$ ).

**CONCLUSION:** Premedication with dexamethasone increased the success rate of IANB in mandibular molars with asymptomatic irreversible pulpitis.

**Keywords:** Dexamethasone, ibuprofen, inferior alveolar nerve block, irreversible pulpitis



## PP-019

**THE FABRICATION OF IMMEDIATE PROVISIONAL RESTORATION AFTER IMMEDIATE IMPLANT INSERTION: A CASE REPORT**

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In recent years the frequency of and esthetic demand for implant restorations in the esthetic zone has increased. Placement of a provisional restoration following implant surgery can create soft tissue contours that resemble normal gingival topography before placement of the definitive prosthesis. The purpose of this study was to present a case of gingival recontouring by the fabrication and adjustment of an immediate provisional implant restoration to produce the optimal emergence profile of the definitive implant restoration. A 30-years old woman, presented with pain and mobility of the maxillary right central incisor. After clinical and radiographic examination the tooth was atraumatically extracted such as the gingival and osseous structures were preserved. After the tooth extraction, an implant was inserted into the prepared site with an insertion torque of 35 Ncm. A prefabricated abutment was connected to the implant and prepared intraorally to a desired form. A provisional composite resin crown was then bonded on to the abutment and adjusted. Any occlusal contact was avoided, permitting immediate but reduced functional loading of the implant. After the osseointegration period, the provisional restoration was removed and healing evaluated. The definitive implant retained fixed crown was luted with polycarboxylate cement. Oral hygiene instructions were provided to the patient. This clinical report described an alternative method for fabricating an immediate provisional restoration after immediate implant insertion at the maxillary right central region. The use of provisional restoration immediately after implant insertion would possibly maintain the bone and gingival tissue volume, contributing to a better outline and maintenance of dental emergence profile. In this case, an accurate emergence profile was achieved with a provisional restoration fabricated according to the emergence profile concept. After a follow-up period of six months the implant supported restoration and the peri-implant tissue was healthy.

**Keywords:** immediate implant, immediate provisional restoration

## PP-020

**PERIPHERAL GIANT CELL GRANULOMA (PGCG) IN A PEDIATRIC PATIENT: A CASE REPORT**

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**INTRODUCTION:** Peripheral giant cell granuloma is a relatively uncommon lesion of the oral cavity, arising mainly from the connective tissue of the gingiva, periodontal membrane, periosteum of alveolar ridge, or in response to local irritation. Initially, similar central lesions of the jaw were referred to as reparative lesions. Since the reparative response was quite rare, the term "peripheral giant cell granuloma" is currently preferred and universally accepted. The histological features consist of a nonencapsulated highly cellular mass with abundant multinucleated giant cells dispersed throughout. The radiographs exhibit evidence of superficial destruction of the alveolar margin or crest of the interdental bone.

**CASE:** We present the case of a 4-year-old boy, suffering a growing gingiva in the buccal aspect of right deciduous canine for two months. On intraoral examination was observed a painless, exophytic swelling of approximately 1,5 cm, non-bleeding on palpation. The lesion demonstrated rapid, progressive and continuous growth. The lesion was excised under local anesthesia. Histopathological diagnosis suspected peripheral reparative giant cell granuloma.

**DISCUSSION:** PGCG is seen in the young as well as in the elderly population with highest incidence in the 4th to 6th decades of life. The preferential location of the lesion according to Pindborg is the premolar and molar zone, though it generally occurs in the incisor and canine region.

**CONCLUSION:** Early and definite diagnosis of peripheral giant cell granuloma on the basis of clinical, radiographic, and histopathological examination allows conservative management with minimal risk to the adjacent hard tissues.

**Keywords:** peripheral giant cell granuloma, central giant cell granuloma, reparative giant cell granuloma



PP-021

**MYOFIBROMA OF THE MANDIBLE**

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**INTRODUCTION:** Myofibroma and myofibromatosis are rare benign mesenchymal neoplasms composed of contractile myofibroblastic cells arranged around thin-walled blood vessels with a predilection for the head, neck, and perioral structures. Microscopic analysis of lesions revealed a spindle cell tumor with immunoreactivity for vimentin, muscle-specific actin, and specific smooth muscle isoform  $\alpha$ -actin, rendering the diagnoses of myofibroma. Myofibroma presents a wide range of differential diagnosis, including benign and malignant neoplasms. Therefore, accurate diagnosis may avoid an unnecessary aggressive therapy.

**CASE:** A 9-year-old boy was referred to our department, for evaluation of a painless swelling on the gingiva. According to his mother, the lesion had been present for about 15 days and had already been previously removed, without histopathologic analysis, but showed new growth. Clinical oral examination revealed a fibroelastic and poorly defined mass around the first right mandibular molar extending mainly to the lingual gingiva and measuring 3.0 X 2.0 X 1.0cm. The color of the lesion was normal, and the tooth presented prominent mobility. Panoramic radiograph showed no important bone alterations. Medical history was unremarkable, and all blood tests were within normal limits. The patient was treated with surgical excision, and follow-up without any signs of recurrence.

**DISCUSSION:** Myofibroma is reported as the most common fibrous tumor of infants and belongs to an enigmatic group of lesions originally described as a fibroblastic malignant infantile condition. When these lesions occur in the oral region, the mandible is the most common site.

**CONCLUSION:** Myofibroma is a mesenchymal benign neoplasm with myofibroblastic differentiation that may present clinical and histopathologic features that overlap with benign and malignant spindle cell tumors. Awareness of this benign neoplasm and its inclusion in the differential diagnoses of oral cavity lesions may avoid misdiagnoses and unnecessary aggressive therapy.

**Keywords:** Myofibroma, Myofibromatosis, Neoplasms

PP-022

**CENTRAL GIANT CELL GRANULOMA OF THE LOWER JAW: A CASE REPORT**

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**INTRODUCTION:** Central giant cell granuloma is a benign aggressive destructive osteolytic lesion of osteoclastic origin. The central giant cell granuloma is often found in the mandible, anterior to the first molars. It most commonly occurs in patients under the age of 30, with a clear female prevalence. Clinically it presents as a slow growing painless lesion with expansion of cortical bone; in rare cases it is associated with perforation of bone with paresthesia and local pain.

**CASE:** The twenty one years old male patient complained with swelling, referred to our clinic. Radiologic examination showed radiolucent lesion between right canin and left first premolar in lower jaw. In oral examination, buccal and lingual bone expansion was seemed at the region. Five teeth between right canin and left first premolar were devital to electrical and thermal pulp testing. The patient was treated successfully by curettage with peripheral ostectomy with preservation of the continuity of the mandible and the devital teeth were extracted.

**DISCUSSION:** Central giant cell granulomas of the jaws usually present as a solitary painless radiolucent expansion, in most cases in the third decade, with females twice as likely to be affected as males. Some central giant cell lesions are associated with systemic disease or syndromes like brown tumour (hyperparathyroidism), Paget's disease, Neurofibromatosis type I, Ramon syndrome, Cherubism and Noonan syndrome. Attempts have been made to delineate a more aggressive subtype, requiring more radical treatment, by histological, radiographic and clinical features.

**Keywords:** giant cell granuloma, osteolytic lesions



**PP-023**  
**AMELOBLASTOMA OF MANDIBLE**

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**INTRODUCTION:** Ameloblastoma is a benign odontogenic tumor with an aggressive biological behavior and the surgical treatment frequently results in failure for the postoperative recurrence. The radiographic examination is important and helpful in evaluating the biological behavior of the tumor. It is possible to estimate growth rate by the radiographic image because we could get information from radiographs including the bone destruction, the reactions of bone, the edge of lesion and other details such as location and size of the tumor.

**CASE:** A 21-year-old male presented with pain and swelling to the right side of his face. The patient noted that the swelling became larger for six months. Physical exam revealed a large swelling in the right mandibular body region. Orthopantomogram and computed tomographic scan of the mandible revealed an expansile, mixed radiolucent/radiopaque lesion with a radiolucent rim between right first molar and left canin teeth. The patient was treated successfully by curettage with peripheral ostectomy with preservation of the continuity of the mandible and the devital teeth were extracted. Final pathology confirmed the diagnosis of aggressive ameloblastoma. After one year follow-up there was no recurrence.

**DISCUSSION:** The management of ameloblastoma places the oral and maxillofacial surgeons in a dilemma whether to take a conservative or a radical treatment. For a long time, surgeons deemed that the ameloblastoma was a benign odontogenic neoplasm, and could be treated by the curettage or enucleation. If the tumor recurred, it could be treated with a secondary surgery in a smaller region than the original lesion. Although it is considered a benign tumor, ameloblastoma has aggressive behaviors including local recurrence, cancerization or even distant metastasis.

**Keywords:** Ameloblastoma, odontogenic tumors, mandible

**PP-024**  
**GIANT COMPLEX ODONTOMA OF THE POSTERIOR MANDIBULA: REPORT OF CASE**

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Odontomas are classified as odontogenic tumors; however, due to their limited and slow growth, they are considered to be hamartomas in which all dental tissues are represented, rather than benign neoplasm. On the basis of gross, radiographic, and microscopic features, odontomas are sub-classified into compound odontoma and complex odontoma. Complex type is an agglomerate of all the dental tissues that are characterized by normal histodifferentiation but abnormal morphodifferentiation producing little or no resemblance to normal tooth form. Odontomas are usually associated with overly retained primary and unerupted permanent teeth. The exact etiology of odontomas is unknown, but local trauma, infection, inheritance, and genetic mutation have been postulated as possible causes of odontomas.

A 22-year-old female reported to the Department of Oral and Maxillofacial Surgery with pain in the posterior mandible on the right side. There was no history of trauma or swelling of the maxillofacial region. Intraoral examination revealed expanded buccal cortex distal to the permanent mandibular right first molar with apparent absence of the right mandibular second and third molars. Panoramic radiograph showed an impacted mandibular third molar with an extensive mixed radiolucent and radiopaque lesion, with well-corticated limits, measuring approximately 2 cm in the major diameter. The radiopaque area was amorphous, circumscribed by irregular radiolucent halo and located distal to mandibular second and coronal to impacted third molar. A computed tomography (CT) obtained in order to show an intimate relationship between the inferior alveolar nerve and the odontoma-tooth unit. Surgical removal of the impacted third molar and the associated odontoma was planned. Early detection and treatment of odontomas increase the possibility of preservation of the impacted tooth. Therefore, it would be suggested that periodic panoramic examination during the first and second decade of life might be beneficial for the early detection and better prognosis of odontomas.

**Keywords:** Giant Complex Odontoma, impacted tooth, odontomas



## PP-025

**AN ALTERNATIVE SURGICAL APPROACH TO IMPACTED MANDIBULAR THIRD MOLARS TO REDUCE THE RISK OF INFERIOR ALVEOLAR NERVE INJURY: CORONECTOMY**Yeşim Erkan<sup>1</sup>, Ümit Karaçaylı<sup>1</sup>, Özgür Öztürk<sup>2</sup>, Özlem Öğretir<sup>1</sup><sup>1</sup>Dept. of Oral and Maxillofacial Surgery, Gulhane Military Medical Academy, Ankara, TURKEY<sup>2</sup>Dept. of Prosthodontics, Gulhane Military Medical Academy, Ankara, TURKEY

Damage to the inferior alveolar nerve (IAN) during third molar extraction is a major concern for patients and clinicians. The risk of this complication depends mainly on the position of the impacted tooth in relation to the inferior alveolar canal. The incidence of IAN injury reported in the literature ranges from 1.3% to 5.3%. To reduce or eliminate this complication, several approaches have been proposed. Some authors advocated orthodontic- assisted extraction of the impacted mandibular third molars. Others introduced partial odontectomy, that is, the surgical removal of the anatomic crown leaving the roots in place.

A 28-year-old female reported to the Department of Oral and Maxillofacial Surgery with pain in the posterior mandible on the left side. Medical history was not contributory. The panoramic radiograph showed the mandibular third molars in horizontal impaction with root apices superimposed to the IAN. The computed tomography scan confirmed the intimate relationship between the teeth and the IAN. Several options were proposed to the patient, then a staged surgical extraction was proposed and accepted by the patient. A periapical radiograph of the area is taken before surgery and stored for follow-up comparison. The surgery is approached as it would be for extraction of an impacted third molar. After the migration of the third molar had taken place, the extraction could then be accomplished in a second surgical session minimizing neurological risks. This technique may be considered as an alternative approach to the extraction of horizontally or mesioangular impacted third molar in proximity to the IAN. The coronectomy technique diminishes the possibility of nerve injury thus avoiding patient dissatisfaction, and also offers a less traumatic approach than conventional third molar removal.

**Keywords:** Coronectomy, Impacted Mandibular Third Molars, Inferior Alveolar Nerve Injury

## PP-026

**CORRECTION OF CLASS III MALOCCLUSION CONCOMITANT OF ANTERIOR OPENBITE AND LATHEROGNATHIE WITH BILATERAL SAGITTAL SPLIT OSTEOTOMY**Firat Koc<sup>1</sup>, Metin Sencimen<sup>2</sup>, Hasan Ayberk Altuğ<sup>2</sup>, Gurkan Rasit Bayar<sup>2</sup>, Tamer Zerener<sup>2</sup>, Mehmet Kaplan<sup>1</sup><sup>1</sup>Gulhane Military Medical Academy, Dep. of Orthodontics, Ankara, TURKEY<sup>2</sup>Gulhane Military Medical Academy, Dep. of Oral&Maxillofacial Surgery, Ankara, TURKEY

The Class III malocclusion with mandibular prognathism, latherognathism and anterior openbite is usually characterized by an excessive plane angle of mandibula, extensive gonial angle, overdevelopment of mandible, underdevelopment of maxilla, and small cranial base angle which may cause a forward positioning of the mandible by displacement of the glenoid fossa to anterior. These factors are mostly thought to contribute to the development of skeletal malocclusion as well as facial deformities, and believed to originate from genetic and/or environmental factors and trauma to the jaws. Various types of skeletal patterns may exist in Class III malocclusion such as the combination of maxillary retrusion and mandibular protrusion (9.5%). But the basic principle of surgery is to accomplish the operation with minimum surgical intervention. This case report is aimed to present patient with Class III malocclusion cephalometrically, requiring bimaxillary surgery only to the mandible without an application to maxilla, purposed to correct skeletal class III malocclusion with mandibular prognathism, laterognathism and anterior openbite by orthognathic surgical procedure.

**Keywords:** Orthognathic surgery, Laterognathie, Open bite, Class III Malocclusion.



## PP-027

**LARGE KERATOCYSTIC ODONTOGENIC TUMOR OF THE MANDIBLE: A CASE REPORT**

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Keratocystic odontogenic tumor (KCOT), formerly known as odontogenic keratocyst, is a benign neoplasm of odontogenic origin which may present an aggressive and infiltrative behavior leading to high recurrence rates. It is one of the most aggressive odontogenic cysts of the oral cavity. Various treatment options for the management of the KCOT have been described in the literature. We present of case 21 year old man with large KCOT and impacted second premolar tooth in left mandible. The clinical, radiological, and histopathological features of this tumor and its surgical management are discussed.

**Keywords:** Histopathology, keratocystic odontogenic tumor, recurrence.

## PP-028

**MANDIBULAR RESECTION AND RECONSTRUCTION WITH FREE ILIAC CREST FLAP IN THE MANAGEMENT OF EXTENSIVE AMELOBLASTOMAS: FOUR CASES REPORT**

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We presented our experience with the management of 4 extensive mandibular ameloblastomas treated with segmental mandibulectomy, reconstruction with free iliac crest flap, and rehabilitation with delayed endosteal dental implants. The study sample comprised 4 patients with histologically confirmed mandibular ameloblastomas. Mandibular defect sizes ranged from 3.5 to 12.5 cm (mean, 5.6 cm). A free iliac crest osseous or osteomuscular flap was used for reconstruction. Dental implants were positioned in one patient and the others treated with conventional prosthesis. All flaps were transplanted successfully, and no major complication occurred postoperatively. Free margins were achieved in all patients. Only one patient showed clinical or radiologic signs of recurrence. Segmental mandibular resection followed by immediate defect reconstruction with bone-containing free flaps should be considered as the treatment of choice for extensive mandibular ameloblastomas.

**Keywords:** ameloblastoma, free iliac flap



## PP-029

## POSTSURGICAL COMPLICATIONS

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Basic surgical principles have been discussed at length. The intent has been to demonstrate that if these guidelines are followed, the incidence of postsurgical complications could be significantly reduced. However, despite care and concern on the part of the surgeon, postsurgical problems can occur. The clinician must be quick to recognize them and must understand their etiology and methods of treatment.

Postsurgical technique notes;

**Pain:** Aspirin-containing compounds should be discontinued before a surgical procedure and as a rule not prescribed as an analgesic after the completion of surgery. NSAIDS are excellent substitutes for aspirin.

**Swelling:** Swelling is an expected sequel from endodontic surgery. It can range from minimal to moderate and, in rare cases, severe. The incidence of postsurgical swelling can be reduced when sound surgical techniques are followed

**Infection:** Although an uncommon occurrence as a result of endodontic surgery, infection is nevertheless possible. When it occurs there is usually an underlying cause that has been overlooked.

**Bleeding:** Bleeding is primarily the result of failing to completely reflect the mucoperiosteum. Incisions deep into the surrounding tissue and through muscle attachments also contribute to bleeding and tissue hematoma formation.

**Discoloration:** Facial discoloration, while not a common occurrence, does happen and is cosmetically detracting. Care during reflection and especially retraction can reduce the incidence of bruising and discoloration.

**Intraoral hematoma:** Intraoral hematoma can present in a dramatic fashion. It can be localized or involve the submucosa of the entire lip or cheek.

Poor oral hygiene, Tissue trauma (commissure of the lip, vermillion border of the lip), tissue trauma to the flap (torn sutures, tissue dehiscence), Incomplete root resection, Malalignment of retrograde obturation material, foreign debris in the surgical site, and paresthesia are postsurgical complications in endodontic surgery can occur.

**Keywords:** Complication, Swelling, Bleeding, Discoloration

## PP-030

## INVESTIGATION OF THE EFFECT OF RESVERATROL ON CIGARETTE SMOKE EXPOSED RATS, ON BONE MINERAL DENSITY AND BONE MINERAL CONTENT

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Resveratrol, a polyphenolic compound rich in grapes, has been reported to protect cells against oxidative damage and cell death by increasing cellular antioxidant capacity. Resveratrol has been shown to significantly modulate biomarkers of bone metabolism, to promote osteoblast differentiation and to prevent bone loss. Cigarette smoking is a risk factor for osteoporosis and oxidative damage is implicated in its pathogenesis. The aim of present study is to examine effects of resveratrol on bone mineral density (BMD) and bone mineral content (BMC) in experimentally cigarette smoke exposed rats. In the study, effects of resveratrol on BMD and BMC were examined in the femora of experiment and control groups by dual energy X-ray absorptiometry (DEXA). Groups are; Cigarette smoke exposed (6



cigarette/day), Treated with 20 mg/kg resveratrol via oral gavage, Cigarette smoke exposed together with 20 mg/kg resveratrol and Control. Experiment groups exposed to cigarette smoke for 4 weeks. After 4 weeks cigarette smoke exposure, resveratrol was given via oral gavage for 4 weeks together with cigarette smoke. Analysis of variance (ANOVA) was first performed to determine whether there were statistically significant ( $p < 0,05$ ) differences among the experimental groups. Further, Barklett's ki-kare test was used for comparisons between individual groups and to determine which means differed statistically significantly ( $p < 0,05$ ). In terms of BMD and BMC, as a result of variance analysis, the differences between the averages of groups, statistically there was no significant difference. In conclusion, for 8 weeks cigarette smoke exposure wasn't compromised BMD and BMC in the femur and for 4 weeks 20 mg/kg resveratrol administration was not affect BMD and BMC.

**Keywords:** BMD, BMC, Cigarette smoke, Resveratrol

#### PP-031

### A GIANT DENTIGEROUS CYST CAUSED BY INVERTED SUPERNUMERARY TOOTH INVADING MAXILLARY SINUS AND FLOOR OF THE NOSE

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Dentigerous cysts are benign odontogenic cysts that arises from the dental follicle of an unerupted or a developing tooth. In order of its frequency they are associated mandibular third molars, maxillary canines, mandibular second premolars and maxillary third molars. They may also occur around supernumerary teeth. About 95% of dentigerous cysts involve the permanent dentition and only 5% are associated with supernumerary teeth. Dentigerous cysts are usually slow-growing lesions and may attain a considerable size with minimal or no symptoms. In radiographs these cysts present as a well defined unilocular and rarely multilocular radiolucency. Often there is a demarcating sclerotic border. The usual treatment of dentigerous cyst is careful enucleation or marsupialization of the cyst.

Here, we present a case of dentigerous cyst which developed around an unerupted supernumerary inverted tooth. Computed tomography scan showed a cystic lesion measuring 5,5 cm from right maxiller first molar to left canine, extend to mucosa of nasal cavity floor with expansion and erosion of the anterosinus cortical bone. The cyst was accessed via sulcular incision, epithelium of cyst was dissected from nasal mucosa and enucleated. Supernumerary tooth was extracted. The postoperative healing was uneventful. No recurrence has been seen.

**Keywords:** Dentigerous cyst, supernumerary tooth

#### PP-032

### INFERIOR ALVEOLAR NERVE LATERALIZATION AND IMMEDIATE IMPLANT PLACEMENT FOR REHABILITATION OF ATROPHIC MANDIBLE: AND: A CASE REPORT

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Posterior mandibular atrophies in patients who need dental implants pose a challenge in oral and maxillofacial surgery. When the insertion of implants in an atrophied mandible is required, several techniques can be performed to resolve this problem such as: alveolar distraction; onlay and inlay bone grafting; guided bone regeneration; "all-on-four" concepts-procedures and short implants. The other options when placing implants in an atrophied mandible are the lateralization and transposition of inferior alveolar nerve (IAN).

In technique of inferior alveolar nerve lateralization, the nerve is exposed and traction is used to deflect it laterally for placing the implants. Clinical experience, knowledge of the anatomy, and the ability to treat potential intraoperative and/or postoperative complications are necessary to decrease the risk of nerve



damage. A 40-year old woman, needing the fixed prosthesis in posterior atrophied mandible at her left side, referred to our clinic. In our case, we observed the distance between the superior cortex and the inferior alveolar canal was almost 5 mm and the thickness of the alveolar bone was approximately 8 mm according to the cone beam computed tomography. The patient was informed about all relevant aspects of the proposed treatment. According to informed consent form, she agreed to the nerve lateralization. We preferred to perform this technique with piezosurgery device in order to decrease potential complications. The aim of our case is to achieve the required bone height to securely place the immediate implant as suitable as possible, while keeping the neurosensory function of the IAN intact. According to our aim, we will report this case with eight months follow-up.

**Keywords:** Atrophic mandible, immediate implant, inferior alveolar nerve lateralization

### PP-033

#### A DENTIGEROUS CYST REOCCURED AFTER DIAGNOSING AND APPLYING MARSUPIALISATION THREE YEARS AGO

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**AIM:** The aim of this case report was to describe the surgical approach to the dentigerous cyst which reoccurred after applying marsupialisation three years ago.

**CASE:** 47-years-old female patient with complaint of swelling and pain at the right of the mandible referred to our clinic. By the anamnesis of the patient it was learned that an orthopantomography had been taken during a routine dental treatment and the lesion had been sight at the right of inferior mandible, confirmed as dentigerous cyst with clinic, radiographic and pathologic examination and marsupialisation had been applied. After clinic, radiographic and pathologic re-evaluation of the patient it was concluded that the cyst was relapsed and infected. The third molar was extracted which was in the cyst region, the epithelial tissues were curetted, the cyst cavity was irrigated and the infection was taken under control with oral antibiotic therapy. An obturator was prepared by taking the impression of the cavity and adapted to patient's mouth. Patient was called every other day and irrigation was applied. The obturator was adjusted for the cavity which was becoming smaller more and more.

**RESULTS:** Pain, swelling and submandibular lymphadenopathy was eliminated and the cyst cavity reached a shape available for patient to clean it. The patient was informed about the importance of the follow-up.

**CONCLUSION:** It is known that the relapse incidence of dentigerous cysts is very low when they are treated with total enucleation. If the cyst is very large or related with the anatomic structures (such as inferior alveolar canal) marsupialisation is preferred in order to obtain a smaller cavity to enucleate. Because of the possibility of the transformation of the capsule into ameloblastoma, squamous cell carcinoma and intraosseous mucoepidermoid carcinoma, it is certain that the patient must be followed-up.

**Keywords:** dentigerous cyst



**PP-034****RECONSTRUCTION OF EXCESSIVE ANTERIOR MAXILLA DEFECTS WITH BLOCK GRAFT AND PRF: CASE REPORT**

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Sufficient bone volume is essential to achieve functional and esthetic success of dental implants. After tooth extraction the resorption process and bone volume reduction because of the trauma makes difficult to place implants in ideal position and dimension. For this reason different alveolar ridge augmentation procedures and guided bone regenerations (GBR) technics can be used to achieve implant installation. This case presentation will focus on the concept of GBR with PRF (platelet rich fibrin) usage. Occurring defects before implant placement can augment with autogenic block graft and PRF. Xenograft was added to fill the space around block graft and PRF is applied on graft. After a mean interval of 4 months implant inserted, at the end of 2 months after the gingiva shaping procedure done and zirconia infrastructure porcelain prosthesis applied.

**Keywords:** Autogenic Block Graft, PRF, Augmentation, Implant

**PP-035****SURGICAL EXCISION OF ASYMPTOMATIC PLEOMORPHIC ADENOMA WITH UNUSUAL SIZE FOR 25 YEARS AT BUCCAL MUCOSA: A CASE REPORT**

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Pleomorphic adenomas (PA) arising from minor salivary glands are not common, whereas they are usually arising from major salivary gland tumors. They frequently localize at palatal region however they rarely observed at buccal area. PA are often called a mixed tumor because they consists of both epithelial and mesenchymal elements. The neoplasm is elastic, mobile, slowly-growing and painless. It is easily noticed by the patients when they reach 1 cm in diameter or existence of ill-fitting total or partial prosthesis because of size of the neoplasm. The treatment of this lesion consists of surgical removal with adequate margins. Pleomorphic adenomas may occur at any age, but the highest incidence is in the fourth to sixth decades of life. The aim of the current report is to present the surgical removal of giant pleomorphic adenoma (2.5 X 2.5 X 1.5 cm) seen on the left buccal mucosa. A 64-year-old woman with pleomorphic adenoma referred to our clinic with a tumor on the left buccal mucosa for 25 years. Clinical examination showed a well-defined nodular mass of firm consistency, which was located on the left buccal mucosa. Surgical excision of the pleomorphic adenoma was made under local anesthesia and the biopsy was confirmed as pleomorphic adenoma. The patient is now free from tumor and is followed up carefully.

**Keywords:** Pleomorphic adenoma, buccal mucosa



PP-036

**BILATERAL COMPLEX COMPOSITE ODONTOMAS OF THE MANDIBLE: A CASE REPORT**Alper Kaya, Beyza Kaya, Veysel İçen

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**INTRODUCTION:** Odontoma, complex type (CO) is a tumor-like malformation (hamartoma) in which enamel, dentin, and pulp, and sometimes cementum, is present in a disorganized form. The etiology of odontoma is unknown but genetic factors and environmental causes such as trauma and infection have been proposed. CO is one of the most common odontogenic lesion. It occurs before the age of 30 with the peak in the second decade of life and male/female ratio being 1,5/1. Majority of complex odontomas are located in the posterior mandible followed by anterior maxilla. Radiographically, these lesions manifest as a radiopaque solid mass with occasional nodular elements and are surrounded by a fine radiolucent zone separated from the normal bone by a well-defined cortication line.

**CASE:** A 46-year-old, healthy female patient referred to our Department, with a complaint of swelling in the right mandibula. On intraoral examination was seen teeth-like hard tissue in the mandibular molar region bilaterally. Orthopantomograph revealed solid single triangular radiopaque structures which were irregular and had a radiolucent zone on the left and right sides of the mandible. The above lesions were enucleated with surrounded cyst epithelium under local anesthesia and bone cavities were curetted with round bur. The wounds were rinsed with saline and rifampin. Histopathological diagnosis was both CO.

**DISCUSSIONS:** Complex odontomas tend to occur in the posterior region of the jaws and compound odontomas are more common in the anterior maxilla. Conservative surgical enucleation, complete removal with any associated soft tissues, is considered to be the treatment of choice in most cases of CO.

**CONCLUSION:** Odontomas are often associated with impacted teeth. In our case study, we present complex odontomas bilaterally located in the posterior mandibula and not associated with an impacted tooth.

**Keywords:** odontoma, complex odontoma, tumor

PP-037

**THIRD MOLAR IN MAXILLARY SINUS WITH A HUGE DENTIGEROUS CYST: A CASE REPORT**Yavuz Findik, Musa Kartoz

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Association of third molar tooth in the maxillary sinus with dentigerous cyst is quite uncommon. Third molars are those that are impacted in unusual positions, or that have been displaced and are at a distance from their normal anatomic location. The cause is unknown in most of the cases but developmental disturbance, pathologic processes or iatrogenic factors have been implicated. The incidence is considerably higher in the maxillary incisor region followed by maxillary third molar and mandibular molar, premolar, canine and lateral incisors. Most are symptomless and usually take an insidious course. The impacted tooth can be found incidentally on routine plain radiographs of the paranasal sinuses, skull or panoramic radiographs. We present the case of a patient of huge dentigerous cyst associated with a third molar in the right maxillary sinus. No recurrence was observed in 6 months after surgery.

**Keywords:** dentigerous cyst, ectopic third molar



PP-038

**USE OF DENTAL IMPLANTS TO RETAIN FINGER PROSTHESES: A CASE REPORT**Aydin Ozkan<sup>1</sup>, Can Engin Durmaz<sup>2</sup>, Bugra Senel<sup>1</sup>, Cumhuri Korkmaz<sup>3</sup>, Hasan Ayberk Altug<sup>4</sup>, Metin Sencimen<sup>4</sup><sup>1</sup>Dental service, Diyarbakir Military Hospital, Diyarbakir, Turkey<sup>2</sup>Dental service, Mevki Military Hospital, Ankara, Turkey<sup>3</sup>Dental service, Balikesir Military Hospital, Balikesir, Turkey<sup>4</sup>Department of oral and maxillofacial surgery, Gulhane Military Medical Academy, Ankara, Turkey

Fingers as organs of manipulation have an important role in function and aesthetics. Moreover, for the majority of patients, the loss of the finger can lead to psychological problems. This case report presents the use of osseointegrated dental implants for the retention of finger prostheses. The possibility of using osseointegrated implant-retained prostheses offers a real alternative for the reconstruction of fingers in cases where other techniques are not applicable.

**Keywords:** Dental Implant, finger Prosthesis, psychological problem.

PP-039

**USAGE OF OZONE THERAPY AND ULTRAVIOLET TREATMENT OF BLOOD IN ODONTOGENIC INFLAMMATION OF ORAL AND MAXILLOFACIAL AREA**Vugar Asif Gurbanov, Chingiz Rahimov, Mahammad Davudov, Rashad Mammadzade, Sabrin Ali Azim

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**INTRODUCTION:** Odontogenic inflammation of oral & maxillofacial area composes 85-95% of all inflammatory processes. There is enough information about immunity system and inadequate treatment in patients with maxillofacial cellulitis. The treatment of this kind of diseases with antibiotic therapy and sanitation of incision isn't enough. Incision, drainage, antibiotic therapy, and improving of immune system are need together. We suggest using ozone therapy add to the treatment. Ultraviolet treatment of blood has a positive effect too.

**OBJECTIVE:** A 60- years old Azeri woman presented with "Head, Odontogenic inflammation mediastenitis". The patient was prepared for operation. Blood analyses were taken- abnormal blood analyses were occurred. The incision and drainage was done, during 10 days ultraviolet treatment of blood and ozone therapy were used. 2 days after operation the blood result was normal.

**RESULT:** During 10 days antibiotic therapy, sanitation, ultraviolet treatment of blood and ozone therapy were used. The patient's general condition was good. The blood results were normal. We saved the patients life.

**CONCLUSIONS:** Odontogenic inflammation of oral and maxillofacial area can be treated by incision and antibiotic therapy as usual, and result is not always good. But our practice showed us that usage of ozone therapy and ultraviolet treatment of blood is more effective and can save patients life. Considering the successful result of this treatment we suggest to use ozone therapy and ultraviolet treatment of blood for this kind of diseases of oral and maxillofacial diseases.

**Keywords:** ozone therapy, ultraviolet treatment



**PP-040**

**THE QUALITY OF LIFE IN PATIENTS WITH CLEFT PALATE TREATED WITH SURGERY AFTER 14 YEARS WITHOUT ORTHODONTICS TREATMENT**

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**INTRODUCTION:** More than 200,000 children are born with cleft lip and palate each year, and the condition threatens both the life and livelihood of the child. A cleft lip or palate can be successfully treated with surgery, especially so if conducted soon after birth or in early childhood. Most children who have their clefts repaired early enough are not able to have a happy youth and social life. Children who had a cleft palate repair need to see a dentist or orthodontist. The teeth may need to be corrected as they come in. We decided to study the patient who didn't agree with our propose to be treated by orthodontist.

**OBJECTIVE:** A 16- year's old Azeri boy presented with "cleft palate treated with surgery after 14 years". The patient was operated in 1998 year. Orthodontics treatment for this patient was performed. But despite our proposal, patient insisted on not doing that.

**RESULT:** 14years later after surgery without orthodontics treatment patient had mesial (Pic.1) and palatal occlusion (Pic.2). The patient had abnormal speech, aesthetics and chewing act. The patient didn't go to school; talk to other children in general had such problem as autism.

**CONCLUSIONS:** Due to result we discovered that the quality of life in patients with cleft palate with surgery treatment 14 years later who hadn't orthodontic treatments had such problems as abnormal occlusion, abnormal speech the problem with aesthetics and chewing. The worst is that they had a mental destroy, due to that they couldn't live their life normally. We propose to think 100 times before refuse all proposes of doctor.

**Keywords:** quality of life, cleft palate

**PP-041**

**THE EFFECTS OF MARSUPIALIZATION ON ODONTOGENIC CYSTS**

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**AIM:** The aim of this prospective case series was to investigate the effects of marsupialization on odontogenic cysts.

**SUBJECTS AND METHODS:** Nine patients who have ten odontogenic cysts and treated with marsupialization were included in the study. The biographical and odontogenic cyst treatment details were recorded after clinical and radiological examinations.

**RESULTS:** The population of patients consisted of 6 men (66.6 %) and 3 women (33.3%). The mean age of the patients was 10.9±2.33. The mean follow up was 16.1±3.63 months. According to the pathological reports, 6 cysts were classified as dentigerous cysts (60%) and 4 as radicular cysts (40%). When the localization of cysts were considered mandible to maxilla ratio was 4:1. Only one patient had radiographically multilocular lesions. Mesiodistal, apicocoronal, and buccolingual mean size of the lesions was 25.5±9.96 mm, 19.6±6.58 mm and 16.5±5.23mm, respectively. We observed that the last size of all lesions were smaller than the initial size. In addition, any postoperative complications and/or recurrence weren't observed.

**CONCLUSION:** Marsupialization was found to be effective treatment option for large odontogenic cysts. This procedure appears to affect the probable changes in growth characteristics become rather less aggressive.

**Keywords:** Cone beam computed tomography, Marsupialization, Odontogenic cysts



PP-042

**INTRUSION OF POSTERIOR TEETH USING MINI-SCREW IMPLANTS FOR IMPLANT REHABILITATION**Onur Evren Kahraman<sup>1</sup>, Arda Meriç<sup>2</sup>, İpek Aysan<sup>3</sup>, Ufuk Tatlı<sup>1</sup>, Özgür Erdoğan<sup>1</sup><sup>1</sup>Department of Oral and Maxillofacial Surgery, Cukurova University, Adana, Turkey<sup>2</sup>Department of Orthodontics, Cukurova University, Adana, Turkey<sup>3</sup>Department of Prosthodontics, Cukurova University, Adana, Turkey

It is often difficult to perform implant treatment for missing molars because the antagonist has become extruded. Problems can arise when a posterior tooth is lost to caries or other causes and is not restored immediately. The mini-screw implant is used for various purposes in orthodontics, including space closure, open bite treatment, and uprighting of posterior teeth. In this case, we present a multidisciplinary procedure for implanting the mini-screw, implant and prosthodontic rehabilitation in the patient treated with intrusion of an extruded maxillary posterior tooth. A 33-year-old woman was referred from the prosthodontic department because of her extruded maxillary left first and second, right first molars. She had lost the mandibular left and right, first and second molars 5 years earlier, so there was little vertical space for proper prosthodontic and implant treatment. Intrusion of the maxillary left and right molars was performed with the 4 mini-screw implants. Periodic periapical x-rays were taken to evaluate the condition of the roots, and the desired intrusion was accomplished in 12 months. After the intrusion process ended, two dental implants are placed on mandibular left side. Mandibular right side is rehabilitated with fixed prosthesis because of social indication. By simply implanting mini-screws and controlling the direction and amount of force, successful molar intrusion can be obtained as well as protective oral rehabilitation can be provided.

**Keywords:** dental implants, molar intrusion, mini-screw implants

PP-043

**PROPRIOCEPTIVE CHARACTERISTICS OF IMPLANT SUPPORTED RESTORATIONS: A CASE REPORT**Gürkan Erenel, Cumhuriyet Sipahi, Bülent Pişkin, Simel Ayyıldız, Özgür Öztürk, Faruk Emir

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Prosthetic rehabilitation restores oral tissues that impacts on a person's quality of life. Teeth provide a discriminating sense of touch and directional specificity for occlusal perception, management of mastication and swallowing, and awareness of foods texture and hardness. Peripheral feedback mechanism for control of jaw muscles includes the enamel-dentine-pulp complex and mechanoreceptors in the periodontal tissues. Synaptic feedbacks from periodontal and other intra-oral mechanoreceptors as well as changes in central perception are significant for function and adaptation to oral rehabilitation. With implants, in the absence of the periodontium and periodontal mechanoreceptor feedback, motor control of mastication and sense of biting is reduced, but patients are still able to function adequately.

Implant-supported prostheses are reported to improve tactile discriminative capabilities and motor function compared to conventional complete dentures. 'Osseoperception' is defined as the ability to identify kinesthetic sensation without the input from periodontal mechanoreceptors. This sensation is generated from the temporomandibular joint, masticatory muscle, mucosa, and periosteum, and provides sensory and motor information related to mandible movements and occlusion. For these reasons in partial edentulous patients, final prostheses are supported by combination of implants and natural teeth. In many cases there is only one or two teeth residues. By the way peripheral feed-back mechanism can be protected.

However, it is also likely that an appropriately designed implant-supported restoration, being fixed to bone, more closely resembles the dental status before tooth loss, and this may more appropriately restore optimal motor and sensory function of the masticatory system. In this case report; a series of combined supported fixed partial dentures were presented.

**Keywords:** osseoperception, implant supported, tooth supported



## PP-044

## MAXILLARY EXPANSION WITH TRANSPALATAL DISTRACTION: A CASE REPORT

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**INTRODUCTION:** An adequate transverse maxillary dimension is an important factor for stable occlusion and it positively affects facial esthetics. A narrow and V-shaped dental arch, dental crowding, posterior crossbite, unesthetic black buccal corridors upon smiling, and maxillary transverse deficiency are generally interrelated. Maxillary constriction can be corrected by several types of techniques including slow orthodontic expansion, rapid maxillary expansion, surgically assisted rapid maxillary expansion, or a two-or three-segmented Le Fort I-type osteotomy with expansion. However, complications such as loss of anchorage, skeletal relapse, movement of teeth to the undesirable location, cortical fenestration and buccal root resorption can be seen. The transpalatal distractor avoids all these aforementioned problems, since it is fixed to palatal bone.

**CASE:** Eighteen-years-old female patient was diagnosed with anterior open-bite and narrow maxilla after clinical and radiological assessments. A Le-Fort 1 type corticotomy was performed and the transpalatal distractor (TPD) was placed under general anesthesia. After 7-day latent period, the distractor was activated as 0.33mmx2/day for 10 days. The TPD was removed following three months consolidation period. Lateral and posteroanterior cephalometric films, cone-beam computed tomography and dental casts were taken before surgery and at the end of the consolidation period. The patient was followed for 6 months after removal of the distractor. The results of the analysis showed that the transverse occlusion was corrected.

**DISCUSSION:** TPD technique has become a valuable alternative to resolve transverse problems in the maxilla compared with conventional surgically assisted rapid maxillary expansion and Le Fort I osteotomy. In the TPD technique the forces act directly on palatal bone. Therefore no tooth tipping and other unwelcome dental effects are expected, and segmental tilting in the coronal plane is minimal.

**CONCLUSION:** Transpalatal distraction was found to be a clinically effective technique for palatal expansion in adult patients with maxillary transverse deficiency.

**Keywords:** Narrow maxilla, Maxillary expansion, Transpalatal distractor

## PP-045

## PRIMARY ORAL MALIGNANT MELANOMA

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Malignant melanomas of the oral cavity are extremely rare, accounting for 0.2% to 8% of all malignant melanomas. This malignancy commonly affects male subjects and is more frequently seen at the level of the hard palate and gingiva. Early diagnosis and prompt treatment is the key to reduce the morbidity and mortality. Malignant melanoma cells stain positively with antibodies against HMB-45, S-100 protein and vimentin, and so immunohistochemistry can play a crucial role in evaluating the depth of invasion and location of metastasis.

A case is reported of a malignant melanoma in the mouth of a 76 year-old male, which was originally diagnosed as a bluish reactive denture hyperplasia caused by a ill-fitting lower denture. The tumour was removed surgically and the histopathological examination revealed a nodular type malignant melanoma. There was no evidence of recurrence over a two year follow-up period.

**Keywords:** Malignant Melanoma, Surgery, Immunohistochemistry, Mandible



## PP-046

## FIBROUS DYSPLASIA OF THE MANDIBLE

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Fibrous dysplasia (FD) is a developmental tumour-like condition that is characterized by replacement of normal bone by an excessive proliferation of cellular fibrous connective tissue intermixed with irregular bony trabeculae. It may involve only a single bone (monostotic) or multiple bones (polyostotic). Gender prevalence of FD is equal. The monostotic form is more common and affects 20-30 years of age while the polyostotic form has its onset mainly in children younger than 10 years of age. FD of the jaws affects the maxilla more frequently than the mandible and females are affected more than males.

This case report describes its occurrence in the mandible of a 30 year-old male patient. The clinical examination revealed swelling and pain on the left side of the face in the posterior mandible. Radiographically there was an ill-defined RL lesion between the apices of 35-36 mimicing periapical lytic lesion. Lesion was excised under local anesthesia and the tissue was sent for histopathological examination. The histopathology showed a final diagnosis of cystic fibrous dysplasia of the mandible. There was no evidence of recurrence over one year follow-up period.

**Keywords:** Fibrous Dysplasia, Mandible, Surgery

## PP-047

## CORRECTION OF CLASS II MALOCCLUSION BY DISTALIZATION OF MAXILLARY MOLARS WITH MINI SCREW ANCHORAGE - A CASE REPORT

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Essentially dental Class II malocclusions can be corrected by bilateral premolar extraction or by distalization of molars to Class I relation. Before the introduction of mini screws as anchorage units, treatment option with extraction protocol used to be the common preference due to the side effects of intraoral distalization mechanics or need for extra-oral appliances. This case report represents correction of a dental Class II malocclusion with the aid of mini screw anchorage without extraction. 13 year old female patient with dental Class II malocclusion was referred to our clinic due her chief complaint of vestibuloinfra positioned maxillary canines. She had severe maxillary and minimum mandibular crowding. Due to her retrusive upper and lower lips, a non extraction treatment approach was designed. Upper first and second molar distalization was realised with the aid of mini screws placed between first molar and second premolar roots. Molars were distalized to Class I relation in 9 months time. Following distalization molars were stabilised with Nance appliance and levelling phase was carried out. The total treatment time was 23 months. As a result of the treatment, a well balanced occlusion with ideal over bite and over jet relation was accomplished. The facial aesthetics was improved. As a conclusion, upper molar distalization can be accomplished successfully with the aid of mini screw anchorage without patient compliance and with minimum side effects

**Keywords:** mini-screw, distalization, Class II



PP-048

**MEDIAN RHOMBOID GLOSSITIS RELATED WITH PALATAL INFLAMATION INDUCED BY SMOKE CESSATION DRUGS PURCHASED FROM A WEBSITE: AN UNUSUAL CASE REPORT**Hakan Ocak<sup>1</sup>, Nilay Er<sup>1</sup>, Umut Demetoglu<sup>2</sup>, Osman A. Etoz<sup>1</sup>, Alper Alkan<sup>1</sup><sup>1</sup>Department of Oral and Maxillofacial Surgery, Erciyes University, Kayseri, Turkey<sup>2</sup>Department of Oral and Maxillofacial Surgery, Adnan Menderes University, Aydın, Turkey

Tobacco usage is a tough to break addiction although the risk factors are well known and unfortunately many smokers purchase smoking quitting products from an internet website or non-pharmacy markets instead of getting help from a qualified person or a doctor. Median rhomboid glossitis (MRG) is defined as the central papillary atrophy presents in the posterior region of the dorsum of the tongue and when it is associated with palatal lesion symetrically, immunosupression and even HIV infection should be considered. Here we report a case of MRG related with palatal ulcerated lesions induced by a smoking quitting product purchased from a website. Although there was a suspicion of malignancy at first sight especially in palatal lesions, attentive medical history and clinical evaluation revealed the predisposan factor. Topical antifungal therapy resolved both lesions in one week significantly.

**Keywords:** antifungal therapy, kissing lesions, median rhomboid glossitis, smoking quitting drugs

PP-049

**CLINICAL ASSESSMENT WITH RESONANCE FREQUENCY ANALYSIS OF IMPLANTS PLACED SIMULTANEOUSLY FOLLOWING OPEN SINUS LIFTING PROCEDURE AND INTO A FRESH EXTRACTION SOCKET: A CASE REPORT**Cumhur Korkmaz<sup>1</sup>, Metin Şençimen<sup>2</sup>, Aydın Gülses<sup>2</sup><sup>1</sup>Balikesir Military Hospital, Dental Service, Balikesir, Turkey<sup>2</sup>Gulhane Military Medical Academy, Department of Oral and Maxillofacial Surgery, Ankara, Turkey

Achievement of implant stability is essential for good clinical outcome. Therefore, it is important to be able to quantify implant stability at various times after the installation of dental implants, so that functional loading can be initiated. Resonance frequency analysis (RFA) provides objective measures of implant stability without damaging the implant-tissue interface. It has become quite popular for the last decade. Resonance frequency analysis (RFA) is a non-invasive, objective and sensitive technique developed for implantology where it measures the stability of the implant in osteotomy site. Sinus lifting procedures and immediate implant placement into fresh extraction sockets became integral of the daily implant procedures. The objective of this current report is to assess the ISQ value alterations between an implant placed into a fresh extraction socket simultaneously following sinus lifting procedure and implants placed simultaenously following open sinus lifting procedure. ISQ values were measured during surgery and at the 3rd, 6th, 8th and 12th postoperative weeks. The implant placed into fresh extraction socket revealed lower ISQ values during surgery respectively, however, the decrease of the ISQ values at the 3rd. week measurements were similar in both groups. The increase in ISQ values following the first three weeks was higher in the implant which was placed into extraction socket. At the 6th week after surgery, the ISQ values in both groups were similar. According to the limited knowledge of the current report, it can be concluded that no differences in ISQ values in long term was detected in both groups. Open sinus lifting and simultaneously implant placement into a fresh extraction socket is a safe and versatile procedure in implant surgery.

**Keywords:** Implant stability, Resonance frequency analysis, Sinus lifting



## PP-050

**DIMENSIONAL CHANGES IN FREE GINGIVAL GRAFTS USING ER: YAG LASER: REPORT OF THREE CASES**

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**INTRODUCTION:** Free gingival graft is performed to increase the width of attached gingiva which is decreased from various reasons like trauma, high frenum attachment or gingival recession. Advantages of laser treatment in periodontal surgery are effective and efficient soft and hard tissue ablation with minimal postoperative edema, bactericidal effect on the surgical area and minimal wound contraction. The aim of this case report is to evaluate dimensional changes of free gingival graft in which the recipient area was prepared with Er: YAG laser.

**CASE-REPORT:** The free gingival graft operation was applied to three patients, the graft sizes were standardized and were assessed and recorded before surgery and 10, 21, 90 days and a year postoperatively. At 1 year postoperatively, mean FGG dimensions in the horizontal and vertical direction was reduced by 26.13% and 33.3%, respectively.

**CONCLUSION:** These three cases showed that Er:YAG laser can be used for preparation of recipient area of free gingival grafts.

**Keywords:** Er: YAG laser, free gingival graft, graft dimension, shrinkage

## PP-051

**SQUAMOUS CELL CARCINOMA OF THE TONGUE IN PATIENT WITH MYESTANIA GRAVIS: A CASE REPORT**

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Myasthenia gravis (MG) is an autoimmune disorder of neuromuscular transmission characterised by fatigable muscle weakness. About 10% of patients with myasthenia gravis have a thymoma. Although most MG cases do not have accompanying malignant disease, patients with thymoma may have an increased risk for secondary malignancy. The prevalence of MG is about 1 in 10-20,000. Women are affected about twice as often as men. The reason MG patients are prone to developing cancer is not very well known. Oral squamous cell carcinomas (OSCC) are the most frequent malignant neoplasia of the oral cavity, which largely compromises the patient's life quality. The incidence rate and severity of OSCC have been gradually increasing in past 10 years. The aim of the current report is to present the manegment of OSCC observed at tongue in patient with MG. A 66-year-old man with MG who has lesions at the tongue for 20 days. Clinical examination showed a well-defined nodular mass of firm consistency, which was located in the left and the anterior side of the tongue. Biopsy was made under local anesthesia, and examined in the Department of Pathology. The biopsy diagnosis was OSCC for both lesions. A partial glossectomy with free margin was conducted at the ENT department. The patient was operated on by transoral approach and cervical approach. Right functional neck dissection and left supraomohyoid neck dissection were performed. The patient is now free from tumor and is followed up carefully.

**Keywords:** Myanestia gravis, squamous cell carcinoma of the tongue.



**PP-052**

**TEMPOROMANDIBULAR JOINT ANKYLOSIS SURGERY IN IN ADULTS: A CASE REPORT**

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Temporomandibular joint (TMJ) ankylosis refers a bony or fibrous adhesion of the anatomical joint components by an ankylotic mass and is characterized by difficulty or inability to open the mouth resulting in facial symmetry/deformity, malocclusion and dental problems. The operative management of TMJ ankylosis is challenging and common treatments of TMJ ankylosis include gap arthroplasty (GA) and resection of the ankylosis and reconstruction of the ramus-condyle unit with a costochondral graft or prosthetic joint. The aim of this study was to present the treatment of patient with TMJ ankylosis by using gap arthroplasty.

**Keywords:** Temporomandibular joint, ankylosis, ankylotic mass, gap arthroplasty, facial symmetry/deformity

**PP-053**

**AN EVALUATION OF PATIENTS KNOWLEDGE ABOUT POSSIBLE RISKS AND COMPLICATIONS FOR IMPACTED LOWER THIRD MOLAR SURGERY**

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Third molar surgery is a common surgical procedure for young adults and adolescents. Studies have shown lack of knowledge about this procedure which is one of the major contributors to preoperative anxiety of patients undergoing oral surgery.

**OBJECTIVE:** To evaluate the knowledge of possible risks and complications of the patients who will undergo impacted lower third molar surgery.

**PATIENTS AND METHODS:** 30 (17 female, 13 male) patients were included in this study. 7 Possible complications that could arise as a result of the operation were examined before the surgical operation. Patients asked to numbered possible complications respectively. 7 days after the operation the patients returned to have their sutures removed and for a postoperative interview and patients asked of the same 7 possible complications that were examined in the first visit.

**RESULTS:** Result showed, pain was the most expected complications of the patients preoperatively. Swelling, trismus, infection, lip numbness, tongue numbness and allergic reaction ranged respectively. In the second visit most remembered complication was pain with 20 patients, trismus (14), swelling (12) and infection (4) was remembered respectively as a complication. Only 2 people remembered lip numbness whereas only one patient remembered tongue numbness. None of 30 patients remembered allergic reaction as a complication of third molar surgery. There were no correlation observed between the complication knowledge and occupation level. There were also no statistically significance were found between the complication knowledge and obtaining information from relatives and/or friends who underwent third molar surgery.

**CONCLUSION:** Patients have lack of knowledge about possible complications of third molar surgery. Allergic reaction, damage of the n. alveolaris inferior and/or n. lingualis is the most non-remembered complications. Pain, facial swelling and trismus were most observed complications which also correspond with patients knowledge about this procedure.

**Keywords:** thir molar, surgery, knowledge



PP-054

**PERIIMPLANTITIS TREATMENT VIA SHELL TECHNIQUE USING RESORBABLE BARRIER SYSTEM**

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Peri-implantitis is a site specific infectious disease that causes an inflammatory process in soft tissues, and bone loss around an osseointegrated implant in function. Implant failure has classically been attributed to bacterial infections, occlusal overload, surgical trauma, faulty or incorrect prosthetic design and/or improper surgical placement. The management of implant infection should be focused both on the infection control of the lesion, the detoxification of the implant surface and regeneration procedures such as Guided Bone Regeneration (GBR). Regenerative therapies can also be applied with using Rigid Resorbable Barrier system. Shell technique is one of these kind procedures. Technique allows the recountour the ideal shape of the alvolder ridge. Resorbable syntetic plates consisting of pure poly-D, L-lactic acid (PDLLA) are used to reconstruct the outer countour of the bone defect and fixed using ultrasound- aided resorbable pins, thus creating a stable and secluded space for the application of regenerative therapies. The gap between the shells and the alveoler ridge was filled with autogenous bone chips and xenograft mixture. In this two-case report three- dimensional hard tissue grafting was performed via shell technique for the surgical treatment of periimplantitis.

**Keywords:** periimplantitis, shell technique, sonic weld

PP-055

**AN ALTERNATIVE TOTAL EXCISION BIOPSY METHOD FOR ORAL PRE- AND MALIGNANT LESIONS TO ASSESS THE CLEAR MARGIN ORIENTATION**

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The goal of the total excision of pre- and/or malignant oral lesions is to maintain the tissue with dysplasia and/or cancer free margins which reduces the risk of undergoing re-excision. Therefore, it is very important to assess the orientation of the surgical margin of the biopsy samples. We present a simple but very effective method of total excision biopsies of pre- and/or malignant oral lesions for determining the orientation of the surgical margin of the biopsy samples. After determining of the margins of the lesion visually, two incisions are performed. The first one is localized around the lesion whereas the second one encircles the first incision line with 0.5 cm distance which consists of clinically visulized healthy mucosa. Following the resections, the outer biopsy sample is divided into quadrant and the posterior, lateral, medial, superior surgical margins of the specimens were fixed with sutures to the gauze. Then the prepared biopsy material is fixated in 10% buffered formalin. This method provides the exact orientation of the tissue with dysplasia and/or cancer which should be re-excised afterwards. We present several cases of this type of biopsy and discussed the advantages and the disadvantages of this technique, clinically but also histopathologically.

**Keywords:** excisional biopsy, clear margin, orientation



PP-056

**GUIDED BONE REGENERATION WITH TITANIUM MESH IN THE POSTERIOR MAXILLA FOR DELAYED DENTAL IMPLANT: A CASE REPORT**Sibel Dikicier, Emre Dikicier

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Natural hard and soft tissue contours allow both ideal implant placement and the emergence of a restoration. If there is large or small volume hard and soft tissue defects in these contours, these are prevent three-dimensional implant placement and esthetic results. Reconstructive efforts at aesthetic implant sites usually involve more than replacing missing hard and soft tissue. For reconstruction of these type of defects, the surgeon uses different grafts materials. Guided bone regeneration was introduced as a therapeutic modality aiming to achieve bone regeneration, via the use of barrier membranes and titanium mesh. The aim of this presentation was to evaluate the effect of guided bone regeneration using titanium mesh in implant surgery with hard and soft tissue defect in the posterior maxilla.

**Keywords:** dental implant, guided bone regeneration, titanium mesh

PP-057

**HISTOLOGICAL EVALUATION OF THE EFFECT OF PLATELET RICH FIBRIN AND TRICALCIUM PHOSPHATE GRAFT MATERIAL ON THE WOUND HEALING IN THE PIGS WITH EXPERIMENTALLY DEFECTED BONE**Alper Akgürbüz<sup>1</sup>, Barışeren Oral<sup>3</sup>, Burak Örsçelik<sup>3</sup>, Necdet Doğan<sup>2</sup><sup>1</sup>Ankara Mevki Military Hospital, Department of Dentistry, Ankara, Turkey<sup>2</sup>Gulhane Military Medical Academy, Department of Oral Surgery, Ankara, Turkey<sup>3</sup>Ankara Mevki Military Hospital, Anittepe Med. Center, Ankara, Turkey

In this study bone defects were filled with Platelet Rich Fibrin (PRF) and Tricalcium Phosphate (TCP) graft material. The aim of the study was to induce new bone formation around these artificial scaffolds. In this research three male porcine were used as experimental subjects. Four artificial defects were created on the tibia bones of the subjects. First defect was left unfilled as a control, second was filled with PRF, third with Tricalcium Phosphate (TCP) graft material and finally defect was filled from PRF mixed with TCP graft. All subjects were sacrificed on the 12th week of the experiment and tibia bones were amputated, subsequently histologic sections were prepared using the cutting and grinding technique.

According to the data acquired from histologic examination, the best results were seen in the PRF mixed with TCP graft group, TCP graft group, PRF group and the control group. In conclusion, this study has shown that both of the materials (PRF and TCP) are biocompatible, can induce new bone formation and can be used for bone healing reconstructions.

**Keywords:** Bone Healing, Platelet Rich Fibrin, Tricalcium Phosphate Graft

PP-058

**LARGE DENTIGEROUS CYST IN RAMUS ASSOCIATED WITH IMPACTED MANDIBULAR THIRD MOLAR TOOTH: A CASE REPORT**Tamer Zerener, Gürkan Raşit Bayar, Metin Şençimen, Hasan Ayberk Altuğ, Muhammad Nabi Basiry  
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**INTRODUCTION:** Dentigerous cysts are the most common benign developmental cysts of the jaws. They usually associated with impacted mandibular third molar teeth and impacted canines. They are constantly noted as an incidental finding on radiographs because a majority of these cysts are asymptomatic. Dentigerous cysts may enlarge causing extensive bone resorption and even pathologic fracture. The greater the size of the cyst, also the higher the risk of neurologic damage caused by trauma during and after surgical removal.



**CASE:** A 21 year-old man was referred to the Gülhane Military Medical Academy, Department of Oral and Maxillofacial Surgery for the evaluation of an asymptomatic, cystic lesion in the right side of the mandible. Under general anesthesia, the large cyst enucleated together with the associated third molar tooth. The postoperative surgical site healing occurred uneventfully. The case was diagnosed as dentigerous cyst after histopathological examination.

**DISCUSSION:** Dentigerous cysts are the most common odontogenic cysts. Dentigerous cysts develop within the normal dental follicle surrounding an unerupted tooth and are a result of fluid accumulation between the follicular epithelium and the crown. Treatment of dentigerous cysts is often enucleation. If the dentigerous cysts are large, marsupialization can be applied.

**CONCLUSION:** Dentigerous cysts usually grow up as a slow and asymptomatic. It is therefore important to perform radiographic examination of all unerupted teeth.

**Keywords:** Large dentigerous cyst, mandible, third molar tooth, enucleation

#### PP-059

#### ORAL MYIASIS CAUSED BY LUCILIA SERICATA LARVAE IN A CHILD: A CASE STUDY

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The term myiasis is the infestation of tissue by the larvae of flies. This parasitic infestation is well documented in the skin, especially among animals and people in tropical and subtropical zones. Among the sites of infestation, the human mouth is a common site mainly in tropical countries and is associated with inadequate public and personal hygiene. Due to its destructive potential, appropriate treatment is necessary. This study describes oral myiasis in an 9 years old boy who lives relatively warmer area of his country. The myiasis occurred in the anterior upper jaw associated with palatal area central incisors. Pathologic soft tissue sockets were observed along the deep periodontal tissues.

**Keywords:** hygiene, myiasis, oral infestation, parasite infection, skin, tissues

#### PP-060

#### MCCUNE-ALBRIGHT SYNDROME AND MISDIAGNOSIS

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McCune-Albright syndrome (MAS) is a genetic disorder of bones, skin pigmentation and hormonal problems along with premature puberty. MAS is also associated with other endocrine disorders of the pituitary, thyroid, and adrenal glands. Fibrous dysplasia (FD), cafe'-au-lait skin hyperpigmentation, and precocious puberty are triad of MAS. Within the syndrome there are bone fractures and deformity of the legs, arms and skull, different pigment patches on the skin, and early puberty with increased rate of growth. The relative rarity of MAS and the clinical heterogeneity of this patient population has resulted in inadequate characterization of the disease with regard to dental tissues and treatment. This study represents the largest group of MAS patients to date in whom the resultant dental characteristics have been described, allowing us to make a number of important observations.

**Keywords:** McCune-Albright, fibrous dysplasia, cafe'-au-lait



## PP-061

**HISTOLOGICAL EXAMINATION OF THE IMPLEMENTATION OF LOW MOLECULAR WEIGHT HEPARIN ON THE EFFECT OF WOUND HEALING IN EXPERIMENTAL DIABETIC RATS**Barışeren Oral<sup>1</sup>, Burak Örsçelik<sup>1</sup>, Alper Akgürbüz<sup>2</sup>, Necdet Doğan<sup>3</sup>, Dinçer Yılmaz<sup>4</sup><sup>1</sup>Ankara Mevki Military Hospital, Anıttepe Med. Center, Ankara, Turkey<sup>2</sup>Ankara Mevki Military Hospital, Department of Dentistry, Ankara, Turkey<sup>3</sup>Gulhane Military Medical Academy, Department of Oral Surgery, Ankara, Turkey<sup>4</sup>Ardahan Military Hospital, Ardahan, Turkey

The aim of this study was to evaluate the correlation between the spontaneous healing levels of wound healing prepared on the dorsal side of healthy and experimentally Diabetes Mellitus (DM) induced rats. Diabetes mellitus is a disorder that has negative effects on connective tissue metabolism, therefore it also impairs wound healing process. The aim of this study was to investigate the histological changes in the wounds of STZ induced diabetic rats. For this purpose, 48 Sprague Dawley rats were divided into 2 groups consisting of 24 healthy and 24 diabetic rats. Diabetes was induced by an intravenous injection of (Streptozotocin) STZ. There were two main group and three sub group for each one. Totally six sub groups were designed. Each group had one control group and two experiment group. On the dorsal side of the rats, 8mm full thickness excisional wound were performed with puncher. Sub cutaneous injection of enoxsamarin were applied to the diabetic rats during the first five days. No injection was applied to the control group rats. At the end of seventh and tenth days, tissue specimens were taken from the rats and evaluated histologically. Our study revealed that, topical and subcutaneous low molecular weight heparin application quickens the wound healing in diabetic rats.

**Keywords:** Diabetes mellitus, Enoxaparin, Wound healing

## PP-062

**BIOCHEMICAL EXAMINATION OF THE IMPLEMENTATION OF LOW MOLECULAR WEIGHT HEPARIN ON THE EFFECT OF WOUND HEALING IN EXPERIMENTAL DIABETIC RATS**Barışeren Oral<sup>1</sup>, Burak Örsçelik<sup>1</sup>, Alper Akgürbüz<sup>2</sup>, Necdet Doğan<sup>3</sup>, Dinçer Yılmaz<sup>4</sup><sup>1</sup>Ankara Mevki Military Hospital, Anıttepe Med. Center, Ankara, Turkey<sup>2</sup>Ankara Mevki Military Hospital, Department of Dentistry, Ankara, Turkey<sup>3</sup>Gulhane Military Medical Academy, Department of Oral Surgery, Ankara, Turkey<sup>4</sup>Ardahan Military Hospital, Ardahan, Turkey

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**Keywords:** Diabetes mellitus, Enoxaparin, Wound healing



PP-063

### APPLICATION OF A MODIFIED HEALING CAP IN IMPLANT SUPPORTED AURICULAR PROSTHESIS

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**OBJECTIVE:** Auricular prosthesis are fabricated generally in congenital deformities or tissue deficiencies gained by a trauma. Due to the localization, implant supported auricular prosthesis have important mechanical advantages when compared to those used with tissue adhesives. However, during the prosthetic preparation period of post implantation stage, problems like thickening of the skin tissue around the healing caps may be seen. This condition often requires a third surgical procedure for remodification of the healing tissues.

**CASE:** This case report presents the application of modified healing cap which was attached to the prosthetic part of the patient which could not be rehabilitated due to the thickening of the tissue.

**CONCLUSION:** This alternative technique prevent the patient from other surgical procedure and began to prosthetic procedure in a shorter time.

**Keywords:** Auricular prosthesis, healing cap.

PP-064

### PROSTHETIC REHABILITATION OF ADULT PATIENT WITH UNTREATED CLEFT-PALATE

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**OBJECTIVE:** In cleft palate adult patients, the defect side needs to be obstructed with dentures. The aim of this case is to present the fabrication of a overdenture during function.

**CASE:** The patient was a 21 years old man. He was born with cleft palate, but it was not treated. There was also defect at the alveolar bone. And he was complained of difficulty in speech, swallowing, masticating and unaesthetic general appearance. Telescopic crown retention overdenture prostheses fabricated.

**CONCLUSIONS:** This prosthesis was effective to obstruct the defect. The adaptation of the prosthesis with the soft palate was excellent.

**Keywords:** Cleft palate, overdenture, telescopic crown.

PP-065

### IMPLANT RETAINED ANTERIOR RESTORATIONS: CASE REPORT

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GMMA Haydarpaşa Training Hospital Dental Service

**OBJECTIVES:** Bone loss continues to be linked to years in edentulous regions. Fixed or removable prostheses for the treatment of tooth loss, Functional stimulation of bone re-formed implant treatment alternatives eliminated this possibility.

**CASE:** In this case report, patient with an old anterior fixed prosthetic restoration, presented implication of implant supported prosthetic restoration and the clinical results are discussed.

**CONCLUSION:** In conclusion; patient with anterior implant-supported fixed prosthetic treatment planning of a high aesthetic and biomechanical properties of treatment.

**Keywords:** Bone loss, implant, fixed prosthetic restorations



PP-066

**PROSTHETIC REHABILITATION OF MIDFACIAL DEFECT: CASE REPORT**

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<sup>1</sup>GMMA Haydarpaşa Training Hospital Dental Service

<sup>2</sup>Çukurova University, Faculty of Dentistry, Department of Prosthodontics.

**OBJECTIVE:** Facial prostheses act as an alternative and supplement for the surgical reconstruction of the patients with facial defects. Rehabilitation of midfacial defects always been a complicated issue for maxillofacial prosthodontists. These midfacial defects lead to functional and cosmetic deficiencies. One of the causes of such defects is midline lethal granuloma, which is a destructive granulomatous lesion of uncertain etiology, involving the nose, paranasal sinuses and the palate.

**CASE:** Presented here is a clinical report of a 51 year-old male patient diagnosed to have lethal midline granuloma, who was referred to the GATA Hpaşa Training Hospital Dental Service. The patient had a severe midfacial defect involving the nose, the paranasal sinuses, the palate and upper lip and the soft tissues of the face. Patient was rehabilitated implant supported facial prostheses.

**CONCLUSION:** The implant supported prosthetic rehabilitation was to provide closure of the severe defect to protect the soft tissues from environmental exposure. Secondly the prosthesis also provided acceptable aesthetics and psychological benefit to the patient.

**Keywords:** Midfacial defect, implant retained facial prosthesis

PP-067

**PLEOMORPHIC ADENOMA OF THE PALATE: A CASE REPORT**

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Pleomorphic adenoma, first described by Minssen in Ahlbom's monograph in 1874, is the most common type of benign salivary gland neoplasms. It is defined as a benign mixed tumour composed of epithelial and myoepithelial cells arranged with various morphological patterns, and usually demarcated from surrounding tissues by fibrous pseudocapsule. We present here a case of pleomorphic adenoma of minor salivary gland of the hard palate, and it extends to soft palate. A 45-year old woman referred to our clinic with a complaint of difficulty to swallow due to a swelling in the palate. While obtaining the patient's medical history, she explained that she had been initially warned about a small swelling of the hard palate by physicians performing a tonsillectomy operation ten years ago. The patient was treated under local anaesthesia. The mass was excised with electrocauter which also established the bleeding control, and then it was sent for histopathological examination. Microscopically, there was a myxochondroid stroma along with some tubular structures of epithelial and myoepithelial cells in the lobular area adjacent to the salivary gland lobuli of the deeper area of connective tissue covered with the stratified squamous epithelium-covered. We observed the healing process and we used an acrylic plate until the tumour cavity was totally filled with healthy tissue and the epithelization was completed. The aim of this case was to observe the clinical appearance, surgical approach and healing process of the pleomorphic adenoma.

**Keywords:** benign tumour; pleomorphic adenoma; salivary gland

PP-068

**ORAL SQUAMOUS PAPILLOMA: A CASE REPORT**

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<sup>2</sup>Çanakkale Military Hospital, Surgical Infirmary, Gokceada, Canakkale, Turkey

**INTRODUCTION:** Squamous papilloma is a rare lesion of the oral mucosa with a predilection for the mucosa of



the hard and soft palate. As an oral lesion, it raises concern because of its clinical appearance, which may mimic exophytic carcinoma, verrucous carcinoma or condyloma acuminatum. Its pathogenesis is related to human papillomavirus but recent literature suggests that presence of HPV is an incidental finding and it is unrelated to the development of a squamous papilloma. We present a case of a squamous papilloma presenting as an oral lesion.

**SYMPTOMS AND METHOD:** A 40-year-old male admitted to Gulhane Military Medicine Academy Department of Oral and Maxillofacial Surgery with a complaint of growth on the posterior buccal mucosa since 1 year. His medical, dental and personal history was non-contributory. The left submandibular lymph nodes were non-palpable and non-tender. The lesion had been appearing as a small, non-tender papule since 1 year and it had been relatively further growing up for the last two months. The present lesion was exophytic, white-pinkish in color, cauliflower-like appearance, 4x4 mm in size. Surgical excision was done and the biopsy specimen was taken for histopathological examination. Microscopic findings confirmed that the lesion as squamous papilloma.

**DISCUSSION:** Although many oral squamous papillomas appear to be virally induced, the infectivity of the HPV could be an incidental finding. The routine transmission of the virus is unknown for oral lesions. Surgical removal is the treatment of choice either routine excision or laser ablation. Other treatment modalities include electrocautery, cryosurgery, salicylic acid application and intralesional injections of interferon. Recurrence is uncommon, except for lesions in patients infected with human immunodeficiency virus (HIV).

**Keywords:** Oral, squamous, papilloma

#### PP-069

#### THE ROLE OF SOCKET PRESERVATION IN IMPLANT PLACEMENT TO THE MAXILLARY ESTHETIC ZONE

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**INTRODUCTION:** The ultimate goal of a dental implant is to restore missing or extracted teeth by placing implants in anatomically, esthetically, and long-term functional restorations. An esthetic restoration supported by dental implant rehabilitation is a major challenge of a daily dental practice. The aim of this report was to describe a minimally traumatic extraction socket preservation technique using titanium mesh and bone graft as a preserver prior to implant placement applied for a missing upper central incisor.

**SYMPTOMS AND METHOD:** A 41 year-old male patient has admitted due to the "swinging" of his upper left central incisor. Radiological assessment revealed that the presence of a granulation tissue showing radiolucency and the loss of the adjacent bone. Following the surgical extraction and the curettage of the granulation tissue, a bone substitute (mp3, OsteoBiol Gen-Os) was placed in the extraction socket. Augmented site was covered with an individually trimmed titanium mesh which was rigidly affixed with microscrews. A temporary plastic split including an artificial central crown was applied in order to fulfil the esthetic demands in the healing period. After a 5 months uneventful healing period, a dental implant was placed. 4 months following implant placement prosthetic rehabilitation has been completed.

**DISCUSSION:** Alveolar ridge preservation and site enhancement following tooth extraction has a major impact on the hard and soft tissue volume and cosmetic results of the rehabilitation.

**Keywords:** Socket preservation, dental implant



## PP-070

**AUGMENTATION OF A LOCALIZED BONE DEFECT OF THE ANTERIOR MAXILLARY RIDGE WITH AUTOGENOUS MANDIBULAR BONE HARVESTED FROM THE RETROMOLAR REGION BEFORE IMPLANT INSERTION**

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**INTRODUCTION:** Reconstruction of alveolar ridge deficiencies requires bone augmentation before implant placement. Osseous defects occur as a result of trauma, prolonged edentulism, congenital anomalies, periodontal disease, and infection, and they often require hard and soft tissue reconstruction.

**SYMPTOMS AND METHOD:** A 50 year-old male patient admitted to our clinic due to the loss of his upper left central and lateral incisors. Radiological assessment revealed a localized severe bone loss of the left anterior maxillary region. A block bone graft harvested from the retromolar mandibular area were placed on the localized bone defect of the anterior maxillary ridge and rigidly affixed by microscrews. Then the region was covered with a bone substitute (mp3, OsteoBiol Gen-Os), and a collagen membrane. After a 6 months uneventful healing period, two dental implants had been inserted and prosthetic rehabilitation was completed 6 months following implant placement.

**DISCUSSION:** Augmentation of local bone defects on the alveolar ridge with alternative bone filling materials or bone substitutes may be considered. The important advantage of these materials is their unlimited availability and lack of donor site morbidity. However, such bone substitutes do not have the healing capability and predictability as autogenous bone. Therefore, in localized defects, the use of autogenous bone is still preferable.

**Keywords:** Augmentation, autogenous bone graft, dental implant

## PP-071

**IMPACTED MAXILLARY CENTRAL INCISOR CAUSED BY A SUPERNUMERARY TOOTH**

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<sup>2</sup>Department of orthodontics, Cumhuriyet University, Sivas, Turkey

An anomaly in the eruption path of anterior teeth can interfere with facial aesthetics and cause the impaction of these teeth. The frequency of maxillary incisor impaction ranges from 0.06% to 0.2%. The most common causes of impaction of anterior teeth seem to be odontoma, supernumerary teeth, and loss of space.

A 19 years old patient was referred to our clinic for surgical treatment of impacted maxillary right central incisor. Her medical histories show no systemic diseases and dental histories showed no facial trauma or other developmental anomalies. Clinical examination showed that the patient was in the permanent dentition and her right central incisor was unerupted. Radiographic examinations showed that a supernumerary teeth was preventing the eruption of the maxillary right central incisor. After careful consideration we decide the treatment plan which remove the supernumerary teeth and surgical exposure of the impacted tooth. Maxillary central incisor was ready to orthodontic eruption with bonded eruption chain on the labial surface of impacted tooth. After the surgical operation patient was followed 2 years with orthodontic treatment. At the end of the treatment the impacted central incisors was moved into its proper position in 2 years and the treatment was finished after the maxillary arch were leveled and aligned. Removal of the supernumerary tooth with orthodontic traction of the unerupted central incisor seemed to be the best treatment approach.

**Keywords:** Impacted tooth, supernumerary tooth, surgical exposure



PP-072

**IMPLANT SURGERY RELATED NEUROPATHIC OROFACIAL PAIN DUE TO ANATOMICAL VARIATION**Sertan Ergun<sup>1</sup>, Nazlı Altın<sup>1</sup>, Alaattin Oral<sup>1</sup>, Nihan Aksakallı<sup>2</sup><sup>1</sup>Istanbul University, Faculty of Dentistry, Department Of Oral And Maxillofacial Surgery<sup>2</sup>Istanbul University, Institute of Oncology, Department of Tumor Pathology

Pain initiated or caused by a primary lesion or dysfunction in the nervous system is called as neuropathic orofacial pain (NOP) which could be difficult to diagnose because of lack of clinical and radiographic abnormalities. NOP is accepted as chronic form of facial pain that is normally continuous, deep, poorly localized, and of low to moderate intensity with sporadic episodes of intense pain. There is a wide spectrum of etiologies of NOP which include mainly local trauma such as dental implant surgery as well as central nervous system pathologies. We present a case of NOP appeared following the implant insertion in the anterior maxilla. After five years of persistent and continuous pain the patient was referred to our department. The clinical and radiographical examination revealed no pathologies in this area causing such a pain. The case was diagnosed as NOP and the treatment plan was formed as explantation of the related implants. The implants were removed surgically via piezosurgery and the implants together with hard and soft tissue around were examined histopathologically. Microscopic examination revealed decalcified sections in the periimplant tissue demonstrating mature lamellar and reactive bone tissue which include resorption and apposition lines. There were thick nerve bundles in several areas between fibrovascular fatty bone marrow. The healing was uneventful and the patient was free of pain, postoperatively.

**Keywords:** Implant Surgery, Neuropathic Orofacial Pain, Anatomical Variation

PP-073

**POSTERIOR MANDIBULAR RIDGE AUGMENTATION USING AUTOGENOUS BLOCK BONE GRAFT FOR DENTAL IMPLANT PLACEMENT: A CASE REPORT**

Muhammad Nabi Basiry, Metin Sencimen, Tamer Zerener, Gurkan Rasit Bayar, Hasan Ayberk Altug  
Gulhane military medical academy

Placement of endosseous dental implants is subject to anatomic limitations. In the posterior mandible that limitation is the position of the inferior alveolar nerve. Most frequently patients lose their teeth due to alveolar bone loss, tooth extraction; trauma and long term use of removable appliances tend to lose the bone making it difficult for the placement of ideal dental implants in an optimal prosthetic position. Severe osseous defects or alveolar ridge resorptions often require block grafts harvested from the symphysis or the ramus buccal shelf region before implant placement. The mandibular symphysis graft technique offers ease of access, good bone quantity for localized repair, a corticocancellous block graft morphology and minimal graft resorption. This procedure is important for the placement of ideal dental implants in a favorable position. Here we report the successful management of posterior localized atrophic mandible with autogenous bone block graft harvested from the mandibular symphysis region and after implant placement predictable osseointegration has been achieved.

**Keywords:** Dental implant, bone augmentation



**PP-074****COMPLEX ODONTOMA ASSOCIATED WITH A IMPACTED PERMANENT MAXILLARY CANINE: A CASE REPORT**

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Odontomas are odontogenic tumors that usually present as benign lesions. Odontomas most commonly occurred in patients in the second decade of life. The main presenting symptom is the eruption failure of the permanent teeth. In most cases, odontomas are asymptomatic and the presence of odontomas could be suspected due to the delay in tooth eruption or via routine radiographic examinations. Odontoma, complex type is an agglomerate of all the different dental tissue layers that are characterized by normal histodifferentiation but abnormal morphodifferentiation producing little or no resemblance to normal tooth form. Treatment of choice has been surgical removal of the lesion, and the prognosis is usually favorable because of its benign characteristics and rare recurrence. The purpose of this study is to report the case of a complex odontoma associated with a impacted permanent maxillary canine in a 24 years old women without any systemic disease. The lesion and impacted tooth was surgically removed and 3 months later clinical and radiographical characteristics of the case were presented and discussed in this report.

**Keywords:** odontoma, complex odontoma, impacted maxillary canine

**PP-075****VOLUMETRIC EVALUATION OF AIRWAY SPACE AFTER ORTHOGNATHIC SURGERY**

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**AIM:** The aim of this poster was to present the evaluation of 3-dimensional volumetric changes in the airway space of a patient who underwent Le Fort I osteotomy to correct skeletal Class III malocclusion.

**SUBJECT AND METHOD:** A 28-year-old male patient was referred to our clinic for the treatment of his concave profile. Cephalometric analyses revealed that the patient had skeletal Class III malocclusion due to maxillary retrognathia (SNA=74°, SNB=77.3°, ANB= -3.3°). Following a presurgical orthodontic treatment of 7 months, maxilla was advanced 7.5 mm on the sagittal plane by a Le Fort I osteotomy. Alterations in the volume of airway space were evaluated by using 3-dimensional cone-beam computed tomography (CBCT) images that taken before treatment and after orthognathic surgery. To determine the anatomic borders of the airway space, the posterior nasal spine (anterior border), the posterior and lateral wall of the pharynx (lateral border), the most superior point of the oral pharynx (superior border), and the CV3 plane that was drawn parallel to Frankfort Horizontal (FH) plane and tangent to the most caudal medial projections of cervical vertebrae 3 (inferior border) were used. CV1 plane, parallel to FH and tangent to first cervical vertebra, divided the airway space into two parts as upper and lower airway space.

**RESULTS:** Patient's concave profile and Class III malocclusion was corrected by advancement of the maxilla (SNA=80.5°, SNB=77.5°, ANB= 2.9°). Additionally, volume of upper airway space increased from 9305 to 13578 mm<sup>3</sup> and volume of lower airway space increased from 4474 to 6870 mm<sup>3</sup>.

**CONCLUSION:** Advancement of the maxilla in the anterior direction increases the volume of airway space and CBCT is an effective technique in the evaluation of this alterations.

**Keywords:** Airway space, CBCT, Orthognathic surgery



PP-076

**AN UNUSUAL CASE OF SIMULTANEOUS DENTIGEROUS CYST AND KERATOCYSTIC ODONTOGENIC TUMOR IN A NONSYNDROMIC PATIENT**Recep Serdar Kırıcı<sup>1</sup>, Göksel Şimşek Kaya<sup>1</sup>, Mustafa Temiz<sup>1</sup>, Mehmet Emrah Polat<sup>1</sup>, Elif Demirci<sup>2</sup><sup>1</sup>Atatürk University, Faculty of Dentistry, Department of Oral and Maxillofacial Surgery, Erzurum, Turkey<sup>2</sup>Atatürk University, Faculty of Medicine, Department of Pathology, Erzurum, Turkey

Although dentigerous cyst (DC) and keratocystic odontogenic tumor (KCOT) are relatively common oral and maxillofacial lesions, the cases of patient with both dentigerous cyst and keratocystic odontogenic tumor in the absence of a syndrome are extremely rare and, to our knowledge, only 1 case have been reported in literature till 2013. Here, we report a case of simultaneous DC and KCOT in maxilla of non-syndromic 48-year-old patient.

**Keywords:** dentigerous cyst, keratocystic odontogenic tumor, jaw

PP-077

**AUTOTRANSPLANTATION OF UNERUPTED MAXILLARY CANINE IN ITS APPROPRIATE POSITION (A CASE REPORT)**Ragıp Burak Örsçelik<sup>1</sup>, Alper Akgürbüz<sup>2</sup>, Barışeren Oral<sup>1</sup>, Cenkhan Bal<sup>3</sup><sup>1</sup>Ankara Mevki Military Hospital, Anıttepe Med. Center, Ankara, Turkey<sup>2</sup>Ankara Mevki Military Hospital, Department of Dentistry, Ankara, Turkey<sup>3</sup>Etimesgut Asker Hastanesi, Ankara

**INTRODUCTION:** Tooth autotransplantation refers to the extraction of a tooth from one location and its replantation in a different location in the same individual. The new location may be a fresh extraction socket after extraction of a nonrestorable tooth, or an artificially drilled socket on an edentulous alveolar ridge.

**CASE:** In this case report, it is described about reimplantation of impacted left maxillary canine tooth into its original position after the extraction of deciduous canine in a 20 year-old male patient.

**DISCUSSION:** Autotransplantation is an easy surgical treatment which is well tolerated by young patients. It is aesthetically satisfactory and more cost effective than other treatments like fixed prostheses and dental implants. Success of the procedure depends on careful management during the surgical operation.

**CONCLUSION:** Reimplantation of the patient's own tooth in its original position is an easy, cheap and aesthetically high technique which can be an ideal option for young patients.

**Keywords:** Autotransplantation, reimplantation

PP-078

**ACCIDENTALLY MIGRATION OF A GATES- GLIDDEN DRILL INTO THE MAXILLARY SINUS: CASE REPORT**Nilay Er, Gülfeşan Çanakçı, Hakan Ocak, Osman A. Etoz, Alper Alkan

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Maxillary posterior teeth, especially first premolars, second premolars and first molars, usually have close proximity with maxillary sinus. There have been many reports on the migration of a foreign body into the maxillary sinus such as teeth, implants, root canal filling materials and burs but there is no report on migration of a Gates- Glidden drill which are being used for shaping the coronal part of a root canal. Here we report a case of migrated Gates- Glidden drill into the maxillary sinus when an endodontic treatment was being performed to the right upper second molar tooth. An intern dentist broke the drill in the root canal and while trying to remove the broken part by himself, drill migrated into the maxillary sinus. In our clinic, the broken part of the Gates- Glidden drill, approximately 16 mm in length, with the possibility of damage to vital tissues, was removed by the modified Caldwell-Luc technique and extraction of the tooth was performed. Healing was uneventful.

**Keywords:** foreign body, maxillary sinus, treatment



PP-079

**DECOMPRESSION OF THE LARGE CYSTIC LESION OF THE MAXILLA: CASE REPORT**

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Gulhane Military Medical Academy, Department Of Oral And Maxillofacial Surgery

**OBJECTIVE:** Surgical decompression of large odontogenic cysts is a conservative technique that enables the conversion of a large lesion into a smaller one, thus reducing surgical morbidity. It also gives surgeons the opportunity to obtain a histopathological diagnosis prior to embarking on definitive treatment. The aim of this report is to emphasize the advantages of decompression, insertion of an obturator in the treatment of large benign cystic lesions.

**METHODS:** A 20 years old male patient was admitted to our clinic with a large maxillar cystic lesion. The cystic lesion were treated with surgical decompression and insertion of an obturator. The roots of teeth inside the cystic lesion had endodontic treatment. The pathological report was radicular cyst.

**RESULTS:** In this case, there was radiographic evidence of bony infill and resolution of the radiolucent area in control visits. There was reduction in the size of the the lesion, formation of bone from the periphery. The patient did not suffer any serious postoperative consequences.

**CONCLUSIONS:** Decompression can be considered as an initial treatment option in clinically benign cystic lesions. It is a viable alternative to more aggressive techniques in the management of large cysts of the jaw.

**Keywords:** Decompression, cyst, marsupyalization, benign

PP-080

**TRAUMATIC INTRUSION ON PERMANENT TEETH AND ITS EFFECT ON THE ADJACENT STRUCTURES: A CASE REPORT**

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**OBJECTIVES:** Intrusion injuries commonly occur in the primary dentition and result from an axially directed impact effect, which drives the tooth deeper into the alveolar socket. Intrusion injuries are associated with damage to the pulpal and periodontal structures and possible fracture of the alveolar bone. In addition to rendering treatment to the intruded primary tooth, the dentist must also be aware of the possibility of an injury to the developing permanent teeth germs located in close proximity to the the roots of injured primary teeth. This case will discuss the management and possible sequelae affecting primary and permanent incisors following intrusion.

**METHODS:** The traumatized teeth have a great clinical significance because it not only have consequences on itself but also on its close anatomical relationship. In our case an 18 year old male patient admitted our clinic who had and traffic accident three years ago. His first permanent incisors were seem to be lost due to the trauma. Surprisingly in the oral and radiolglcal examination the incisors and other surnumerer incisors were found as impacted and coverted in to reverse in the alveoler crest. After rising mucoperiostal flep the impacted the incisors were seen impacted and ankylosed under the roots of the second incisors. The two incisors and two surnumerer teeth were extracted by surgically.

**RESULTS:** Remaining second incisors, canines and the surrounding alveoler bone were protected to be used for prosthetic rehabilitation. Infection risk of the impacted teeth were eliminated.

**CONCLUSIONS:** Primary teeth trauma injuries are important due to the developing permanent teeth germs located in close proximity to the the roots of primary teeth. If injuries causes damage on permanent teeth the risk of alveolar bone corruption, impaction, ankylosis of impacted teeth must be in consideration.

**Keywords:** Ankylosis, Impaction, Intrusion, Trauma,



**PP-081****SURGICAL-ORTHODONTIC MANAGEMENT OF A CENTRAL GIANT-CELL GRANULOMA ASSOCIATED WITH IMPACTED MANDIBULAR CANINE**

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**INTRODUCTION:** Central giant cell granuloma (CGCG) of the jaw is a benign lesion of unknown etiology. Although central giant-cell granulomas of the jaws tend to appear more often in children and young adults, most studies include patients of all ages. It is more common in the mandible. The most common treatment is surgical removal; however, alternative therapies (intralesional injections of corticosteroids, interferon alpha, and calcitonin) have been used for treatment. The lesion may cause root resorption, tooth germ displacement, and other dental problems, as well as malocclusion that must be treated orthodontically. This article describes the management of young adult patient with a CGCG surgically treated with extraction of the tooth and enucleation of the cyst and fixed orthodontic treatment.

**CASE:** The patient presented to our orthodontic clinic for treatment of malocclusion. She was a 16-year-old with a central giant-cell granuloma displaced left impacted mandibular canine. The lesion and impacted canine were completely removed. Fixed orthodontic treatment was applied.

**DISCUSSION:** CGCG may cause orthodontic malocclusion by displaced teeth. This case involves an unusual clinical and radiographic presentation of a central giant-cell granuloma with impacted canine. We also reviewed the clinical implications of the diagnosis, planning, and treatment of granuloma-associated impacted teeth in young adult patients.

**Keywords:** impacted canine, central giant cell granuloma, fixed orthodontic treatment

**PP-082****COMPLEX ODONTOMA ASSOCIATED WITH IMPACTED THIRD MOLAR: A CASE REPORT**

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Odontomas account for the largest fraction of odontogenic tumors and are frequent causes of tooth impaction. This lesion takes place due to the developmental disturbances where the dental components are laid down in a disorganized manner, due to failure of normal morphodifferentiation. According to the latest classification of the World Health Organization (WHO, 2005), two types of odontomas can be found: complex odontomas and compound odontomas, the latter being twice as common as the former. Clinically compound odontomas are approximately twice as common as complex odontomas and more of the former occur in the incisor and canine areas of the maxilla. In this case report, the surgical treatment of complex odontoma associated with impacted mandibular 3rd molar is reported. A 20 year old male patient referred to our clinic complaining of swelling and pain on the left mandibular region. An impacted 3rd molar with radioopaque mass which was localised in the left mandible was detected by the panoramic radiography. Under local anesthesia, the odontoma and impacted 3rd molar were totally enucleated. In the postoperative period there was no complication in the left mandibular area.

**Keywords:** Odontoma, impacted molar, odontogenic tumors



**PP-083****INTRALESIONAL CORTICOSTEROID INJECTION FOR CENTRAL GIANT CELL GRANULOMA AS AN ALTERNATIVE TREATMENT: CASE REPORT**

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Central giant-cell granulomas (CGCGs) are benign but rarely aggressive lesions that cause extensive bone destruction, tooth displacement, and root resorption. These lesions generally have been treated by surgical therapy that includes aggressive curettage, peripheral ostectomy or resection, which may be associated with nerve damage, loss of teeth and sometimes loss of dental germs in younger patients. Many alternative nonsurgical treatments have been applied to manage CGCGs such as intralesional corticosteroid injections, calcitonin injections and subcutaneous alpha-interferon injections. Here we present a case of CGCG treated with corticosteroid injections in a 13-year-old boy with a size of 3.5 X 1.5 cm in left mandibular corpus region. After 8 injections with 1 week interval, curettage of the reduced lesion was performed.

**Keywords:** Central Giant Cell Granuloma, Intralesional injection, Treatment

**PP-084****FOREIGN BODY REACTIONS OCCURRING IN THE ORAL CAVITY: THREE CASE REPORTS**

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Foreign bodies may be deposited in the oral cavity either by traumatic injury or iatrogenically. Among the commonly encountered iatrogenic foreign bodies are restorative materials like amalgam, obturation materials, broken instruments, needles, and so forth. The presence of foreign bodies in the oral mucosa is considered rare although some materials such as buttons, wood, an artificial nail, anesthetic needles, grill cleaner bristle, a fingernail and even dental toothbrushes have been reported. The discovery of foreign bodies in the teeth is a special situation, which is often diagnosed accidentally. Detailed case history, clinical and radiographic examinations are necessary to come to a conclusion about the nature, size, location of the foreign body, and the difficulty involved in its retrieval. These foreign objects may act as a potential source of infection and may later lead to a painful condition. The aim of this study was to report three interesting cases of foreign-body reactions affecting the oral mucosa.

**Keywords:** Foreign body reactions, therapy, oral cavity

**PP-085****CHONDROMA IN A RARE LOCATION: REPORT OF A CASE**

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Chondromas are benign tumors composed of mature hyaline cartilage. They generally have limited growth potential and are not locally aggressive. These tumors are called enchondromas when they occur in the medullary canal of the bone and periosteal or juxtacortical chondromas when they occur on the surface of the bone. Chondromas are rare at the jaws.

We present a rare case of chondroma in the maxillary region. A 34-year-old man presented with a 5-cm-diameter left maxillary tumor that had been developing for 2 years. This was subsequently cured with local anesthesia. Histopathologically, the tumor comprised mainly of hyaline cartilage containing chondrocytes with chondrocytic lacunae and was diagnosed as a chondroma. The postoperative period was uneventful, and there was no evidence of recurrence at the 1 year follow up. We describe the clinical characteristics of our case and review the literature, emphasizing the differential diagnosis.

**Keywords:** Chondroma, Maxillary, Benign tumor



**PP-086**

**EARLY PROSTHETIC RECONSTRUCTION OF A HEMI-MANDIBULECTOMY PATIENT**

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Mandibular deviation typically occurs after unilateral mandibular surgeries due to resection of the muscles on the single side. To prevent from the muscle shortening, which is another major reason of the deviation. Early precautions should be taken shortly after the surgery. This case report presents the early prosthetic rehabilitation of a 60 years old male patient who was undergone to hemimandibulectomy due to squamous cell carcinoma of the retromolar trigone. A guide flange splint was initially placed in the mouth after the third month of the surgery. The flange of the splint is designed intraorally to stabilize the occlusion in the maximum intercuspal position. This splint helps the patient to reposition his mandible in the correct position during resting, chewing and speaking, also preparing the musculo-skeletal structures for the final position of the permanent prosthesis. This report aims to emphasize the cooperation between the surgeon and the prosthodontist before, during and after the surgery.

**Keywords:** mandibulectomy, squamous cell carcinoma, splint, prosthesis

**PP-087**

**PERIAPICAL CEMENTO-OSSEOUS DYSPLASIA MIMICKING A PERIAPICAL LESION: A REVIEW OF LITERATURE**

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**AIM:** Cemento osseous dysplasia (COD) is an asymptomatic benign lesion. COD's etiology is unknown. No treatment is necessary for cemento osseous dysplasia. If the lesion is existed around the tooth apices, it is called periapical cemento osseous dysplasia (PCOD). PCOD occurs most frequently in the anterior teeth. The affected teeth are vital.

**CASE:** 25 year-old female patient referred general dentist for routine control. Because of a lesion in the right mandibular canine tooth's periapical area, canal treatment made and patient sent to our clinic for apical resection. Area was opened with semilunar incision and lesion was curetted. Histopathological examination was diagnosed with periapical cemento osseous dysplasia.

**DISCUSSION:** The most cases of PCOD occur in women in the fifth decade of life. The endodontic treatment is unnecessary. Identification of periapical radiolucency is essential in examination. Because of PCOD can mimics endodontic pathosis in radiography. With increased knowledge about PCOD and the use of pulp testing for an accurate diagnosis, dentists can save the pulp and teeth of more patients. Clinician should be careful on diagnosis of periapical lesions and should test pulp vitality, especially in teeth without caries.

**Keywords:** mandible, radiolucent lesion, cemento osseous dysplasia



**PP-088****MIGRATION OF SECOND PREMOLAR TO RAMUS IN LOWER JAW**

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**AIM:** Migration is developmental dental anomaly, which shows horizontal movement of unerupted teeth in jaws. Why is indicated by migration of teeth mechanism is still unclear. Mandibular second premolar is the most common impacted tooth after the third molars and maxillary canines. Migration of the second premolar is uncommon. However early loss of the permanent first molar is one of the most important predisposing factors of migration of this tooth. Bilateral migration of the mandibular premolars is very rare compared to unilateral migration.

**CASE:** The patient who 16 year-old female was referred to the Gülhane Military Medical Academy, Department of Oral and Maxillofacial Surgery for with lack of tooth in right side of mandible. Her second premolar was absent at intraoral and radiographic examination. Panoramic radiograph was used for radiographic examination. Her second premolar was determined migration to the ascending mandibular ramus on the right side. Second premolar was parallel with mandibular canal but it was not relation. Unerupted and migrated second premolar was extracted. There was not any complication. Good wound repair was showed on surgical area in process of postoperation.

**DISCUSSION:** Migration of the premolars has a low prevalence compared to canines and molars. Management of the migration depends on the position of the migrated tooth in jaw. Unerupted teeth must be extracted in migration. Some complications may occur such as fracture in mandible when teeth extraction due from the position of the migration in jaw. Therefore unerupted teeth must extract before migration. In addition to the radiographic examination should include panoramic radiographs. Because migration may not be identified in periapical radiographs.

**Keywords:** second premolar, migration, unerupted tooth

**PP-089****UNEXPECTEDLY DISPLACED SUPERNUMERARY TOOTH INTO THE INFRATEMPORAL FOSSA DURING EXTRACTION OF A MAXILLARY THIRD MOLAR AND RELATED SUPERNUMERARY TOOTH SIMULTANEOUSLY, A CHAIR-SIDE OPERATION: CASE REPORT**

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Accidental displacement of an impacted tooth into the infratemporal fossa is a rarely reported complication. It is very important to be experienced about the anatomic structures and boundaries while removal of the displaced tooth is being performed. Every single condition should be considered very seriously and all the radiographic opportunities should be estimated thoroughly. In this case report we describe the surgical removal of a supernumerary tooth which is located in the superior region of the apices of the right maxillary third molar, accidentally displaced into the infratemporal fossa. The surgery was performed under local anesthesia in a chair-side operation.

**Keywords:** displacement, impacted tooth, infratemporal fossa



## PP-090

**TREATMENT OF BISPHOSPHONATE RELATED JAW OSTEONECROSIS: A CASE REPORT**

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**INTRODUCTION:** Bisphosphonate drugs are used to treat malignant bone metastasis and osteoporosis. However, reports of bone necrosis induced by bisphosphonates (BRONJ) have generated great concern regarding the side effects of these drugs.

**CASE:** A 55-year-old woman for a stage III BRONJ of the mandible, presented herself at a Gülhane Military Medical Academy, Department of Oral and Maxillofacial Surgery, complaining about an intense spontaneous pain in the mandibular left side, second premolar tooth that was extracted five months previously. Under local anesthesia exposed and necrotic bone was resected with piezzo surgery. PRF was applied surgical area and soft tissue was closed. After surgical procedure, related gingival area was bio-stimulated with diode laser and patient took hyperbaric oxygen therapy. Patient was showed satisfactory healing after treatment.

**DISCUSSION:** A review of the literature, the treatment purposes of the BRONJ are described, to eliminate pain, to control infection of the soft and hard tissue and to minimize the occurrence or the progression of bone necrosis.

**CONCLUSION:** In contrast, surgical therapy literature shows more divided outcomes, including both positive and poor outcomes. In this case, limited surgical therapy was chosen, and good outcomes were achieved.

**Keywords:** Bisphosphonate, mandible, piezzo surgery, prf, diode laser.

## PP-091

**ZYGOMATIC IMPLANT PRESURGICAL PLANNING: 3D ABS PLASTIC MODEL**

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With the advances in dental implants, it is necessary to include additional treatment planning to optimize dental rehabilitation. Zygomatic implant is one of the advanced methods to improve total and partial edentulism. For the operation, presurgical planning is required. Indeed, the guide, used for the planning, determines the onset of the surgery. However, due to social economic conditions, guide preparation is not coming up all the times. Thus, three-dimensional Abs plastic model can be used as another option for the presurgical planning. In this case, using three-dimensional Abs plastic model provides planning Maxillofacial surgery, accurate diagnosis, estimating implants' lengths and reducing the operation time.

**Keywords:** Presurgical planning, three-dimensional Abs plastic model, zygomatic implant



**PP-092**

**TREATMENT OF FACIAL ASYMMETRY BY DOUBLE JAW SURGERY: A CASE REPORT**

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**INTRODUCTION:** Our goal was to evaluate and present a case report of facial asymmetry patient which was treated by orthognathic surgery.

**CASE:** A patient underwent orthognathic surgery aiming at the correction of the facial asymmetry was presented herein. Sagittal split ramus osteotomy and Le-Fort I osteotomy was performed. A combination of clinical and radiographic examination findings, photographs and cephalometric analysis' were used to evaluate the treatment outcomes.

**RESULTS:** The patient was treated successfully via double jaw surgery. The esthetic outcome was deemed satisfactory by both the patient and the clinicians.

**DISCUSSION:** Orthognathic surgery is a succesfull treatment option in the correction of the facial asymmetry.

**Keywords:** Facial asymmetry, double jaw surgery

**PP-093**

**REVISION SURGERY FOLLOWING AN INAPPROPRIATE MANDIBULAR FRACTURE TREATMENT: A CASE REPORT**

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**INTRODUCTION:** The aim of the current report was to highlight the importance of the achievement of an ideal occlusion and the correct management of the teeth in the fracture line in the treatment of mandibular fractures.

**CASE:** A 33 year old male patient has admitted to our department due to malocclusion and mild paresthesia of the lower lip. According to his history, he underwent internal fixation of the mandible secondary to the fracture lines on his left angulus and right parasymphiseal areas. A panoramic radiograph revealed incomplete healing of the bone in the corresponding areas. Re-fixation has been performed and the teeth in the fracture line were extracted.

**RESULTS:** An ideal occlusion has been achieved. In addition, paresthesia has resolved 4 months postoperatively.

**DISCUSSION:** Surgeons experience and familiarity plays a key role in the management of maxillofacial fractures. Achieving an acceptable occlusion and the correct management of the teeth in the fracture line are of great importance in the success of the treatment.

**Keywords:** Inappropriate treatment, mandible, fracture, tooth



PP-094

**DESMOPLASTIC FIBROMA OF THE MANDIBLE**

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Desmoplastic fibroma (DF) of the bone is a rare benign tumor consisting of thin, wavy fibroblasts set in an abundant matrix of collagen fibers. Although benign, DFs, painless swelling, are locally aggressive with a high likelihood of recurrence. An 11- year- old male patient with swelling and pain complaint in left mandible consults to our clinic. As a result of radiological and clinical examination, well-demarcated lesion consisting of second and third molar teeth of the left mandible was detected. There was a wide expansion both at lingual side and basis of the mandible. Under the general anesthesia, the lesion was excised and the bony walls curetted with round burr. According to histopathologic examination, the lesion was DF. Because of the patient is in the growing period, we didn't want to prevent natural Maxillofacial skeletal progress, so conservative treatment was preferred despite hemimandibulectomy or segmental resection. We report this case with two months follow-up.

**Keywords:** Benign tumor, desmoplastic fibroma, mandible

PP-095

**DENTIGEROUS CYST ASSOCIATED WITH IMPACTED MESIODENS IN MAXILLA: A CASE REPORT**

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**INTRODUCTION:** Dentigerous cysts, which formed by fluid accumulation between the enamel epithelium and the enamel surface are developmental cysts. They can also exist around supernumerary teeth. Furthermore, account for %5 of all dentigerous cysts, with most developing around a mesiodens in the anterior maxilla. They usually appear accidentally on radiographs. Because of these cysts are usually asymptomatic, radiologic examination is important.

**CASE:** The patient who 66 year-old female was referred to the Gülhane Military Medical Academy, Department of Oral and Maxillofacial Surgery for with an awful pain in upper jaw and her face. Radiographic and tomographic (CT) examination revealed an impacted mesiodens surrounded by radiolucency. Under local anesthesia, the cyst enucleated together with the associated an impacted mesiodens. There was not any complication. The surgical site was showed good healing after two weeks later.

**DISCUSSION:** Dentigerous cysts are most common odontogenic cysts after radicular cysts. Reason of dentigerous cysts is unknown. Although dentigerous cyst is a common developmental cyst, its association with supernumerary teeth is rare and estimated to constitute 6% of all dentigerous cysts.

**CONCLUSION:** To prevent the development of a dentigerous cyst and to avoid unwanted effects on neighboring teeth, supernumerary anterior teeth should be removed surgically or observed with regular radiographic controls.

**Keywords:** Dentigerous cyst; supernumerary tooth, maxilla, enucleation



## PP-096

**SHOWING VESTIBULAR AND PALATAL EXPANSION, RARE NAZOPALATINAL DUCT CYST: A CASE REPORT**

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**INTRODUCTION:** Nasopalatine duct cyst (NPDC) is a most common developmental nonodontogenic cyst in the oral cavity. NPDC is unique in that it develops in only a single location in the midline anterior maxilla. The most common symptom is swelling, usually in the anterior region of the midline of palate. Swelling rare occurs in the midline on the vestibular aspect of the alveolar ridge. In radiographs, NPDC appears as a rounded or "heart-shape" radiolucent lesion concerning the nasopalatine duct.

**CASE:** A 56-year-old male patient applied our department with a swelling of the nasolabial region. Patient noticed the nasolabial swelling and the presence of painless swelling at the anterior maxillary between central teeth several months earlier. CT examinations revealed a rounded cystic lesion suspected to originate from nasopalatine duct. Under local anesthesia lesion was enucleated. The case was diagnosed as NPDC after histopathological examination. The postoperative surgical site healing occurred uneventfully.

**DISCUSSION:** NPDC is a common developmental cyst, which is believed to arise from the epithelial relic of the nasopalatine duct the communication between the nasal cavity and the anterior maxilla in the developing fetus. Surgical enucleation is generally recommended for treatment of this lesion.

**CONCLUSION:** Treatment in all cases involves complete surgical removal as soon as possible after diagnosis. For that reason clinical and radiographic evaluation are very important. A relapse rate of up to 30% has been reported.

**Keywords:** Nasopalatine duct cyst, maxilla, palatal, vestibule

## PP-097

**INVESTIGATION OF DIFFERENT OSTEOSYNTHESIS SYSTEMS FOR RECONSTRUCTION OF THE SEGMENTAL RESECTED MANDIBLE BY FINITE ELEMENT METHOD**

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The purpose of this study was to evaluate the effect of different reconstruction plates and screw combinations on stress distribution of segmental resected mandibles using finite element analysis method. 2 different reconstruction plates (straight and angular) and 5 different screw combinations (four pairs of screws, first screws were subtracted, second screws were subtracted, third screws were subtracted, fourth screws were subtracted) were used on 2 different sized segmental resected mandibles (4 holes sized, 8 holes sized). 3 dimensional models of mandibula, reconstruction plates, fixation screws and the other materials by computer. A 4 mm diameter implant was inserted to opposite side of the resection site. Masticatory loads that have previously determined in literature were applied to the model at the anatomical muscle attachment regions. The data obtained from finite element analysis were recorded as Von mises, maksimum principle and minimum principle stress values. It was observed that stres values on screw neck were higher for screws close to the resection area. Resection size didn't have significant impact on stress values of screws, while it effected stress values of reconstruction plates. When stress values on dental implants were taken into consideration, lower stres values were observed in large resection group. Maximum and minimum principle stress values were within the tolerance limits of the bone. The firstscrews shouldn't be subtracted for reconstruction of small and large resection sites. Subtraction of third screws could be appropriate for reconstruction of small resection sites; while second screws could be subtracted for large resection sites.

**Keywords:** finite element method, reconstruction, segmental resection



**PP-098**

**NEUROSENSORY DISTURBANCES RELATED TO DENTAL IMPLANT PLACEMENT IN THE POSTERIOR MANDIBLE**

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**OBJECTIVES:** During implantology procedures, one of the most serious complications is the damage of the inferior alveolar nerve (IAN), which may result in neurosensory disturbances (NSD). Panoramic radiographs have been considered for a primary evaluation in order to determine the bone height and implant-mandibular canal distance. A safe distance of 2 mm to the mandibular canal from the bottom of the implant has been proposed.

**DESIGN:** 1597 panoramic radiographs of patients, who were treated with 3608 dental implants in Erciyes University, Oral and Maxillofacial Hospital between 2007 and 2012, were examined. 48 implants were determined to be in a close proximity with the mandibular canal using a 2 dimension software programme. The records of the patients were analysed retrospectively.

**RESULTS:** According to our results, a total of 48 implants were in a greater proximity less than 2 mm to the mandibular canal. A range of 0 to 1.9 mm distance was detected between the mandibular canal and the implants. 14 (29.16%) of the implants placed in a distance less than 1 mm to the mandibular canal, and 34 (70.83%) between 1 to 2 mm. One patient had NSD.

**CONCLUSIONS:** Determination of the dental implant length using panoramic radiographies may not be a reliable technique, as it shows distances only in 2 dimensions. Therefore, three dimensional evaluation of the vital anatomical structures is essential for dental implant planning.

**Keywords:** dental implant, neurosensory disturbances, mandible

**PP-099**

**ASSESSMENT OF THE THERAPEUTIC BENEFITS OF THE TMJ ARTHROCENTESIS**

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This study aims to evaluate efficacy of arthrocentesis in the treatment of TMJ internal derangements. This audit includes 37 patients treated from one surgeon's practice, who were followed up at least once at 8 weeks after arthrocentesis. Pain using visual analog scale, maximum mouth opening, joint noises, age, opening functions and mandible deviation were documented pre-operatively and post-operatively. The scores for preoperative maximal mouth opening, and VAS scores for pain and dysfunction were compared with the follow-up scores obtained by the questionnaire and clinical examination. Pain scores improved with intervention from a mean score of 69.8-26.4- (range 0-100). The improvement in mouth opening ranged from 0 to 80% (as some patients had locking or pain with normal opening before operation). mouth opening. The mean increase in the mouth opening was  $10.2 \pm 3.0$  mm at 2 months. The presence of joint noises was decreased range from % 0 -50. Arthrocentesis is minimally invasive procedure with less risk of complications and significant benefits in patients with TMJ internal derangement.

**Keywords:** arthrocentesis, TMJ



**PP-100**

**MANDIBULAR RESECTION AND RECONSTRUCTION OF HUGE AMELOBLASTOMA WITH ILIAC BONE GRAFT**

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Ameloblastoma accounts for about 1% of tumors in the oral cavity, which is a benign odontogenic tumor. Ameloblastoma arises from dental epithelium and macroscopically includes 3 different types: solid or multicystic, unicystic and peripheral features. In the present case report; a 24-year-old female patient referred to our clinic with the complaint of swelling in her left posterior mandibular region. On clinical examination, expansion was observed in the buccal and lingual direction. Radiographic examination was showed a well-defined radiolucency area from the distal of teeth no 37, which included in condyle and coronoid process. The lesion was diagnosed as ameloblastoma by histopathological examination. Under general anesthesia, resection procedure was performed, including the extraction of teeth no 36-37 and mandible was reconstructed with iliac bone graft. In such cases, iliac bone graft is preferred and obtained successful results because of the corticocancellous structure.

**Keywords:** Ameloblastoma, iliac graft

**PP-101**

**ACUTE ALLERGIC ANGIOEDEMA OF THE LIPS: REPORT OF TWO CASES**

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Acute allergic angioedema is an abrupt-onset, unpredictable inflammatory reaction of the skin and mucous membranes. Without treatment, the condition may resolve within hours; however, when swallowing or breathing is affected, emergent medical attention is required. We present two cases report of this condition, with a unique dietary cause. The first patient is 22-years-old man with no relevant medical history emergently presented with acute angioedema of the lower lip, without urticaria. The inflammation spread to other facial structures but gradually dissipated after subcutaneous epinephrine was administered. When questioning of the patient, the cause of the angioedema was honey eating. The second patient is 25-years-old man with acute angioedema of the upper lip, without urticaria. When questioning of the patient, the cause of the angioedema was undefined. Both patients five days later, during tapered prednisone therapy, the angioedema treated and the patient reexamined. It is important that decrease the severity of symptoms such as Laryngeal edema. Antihistamines and glucocorticoids improve symptoms during an acute episode.

**Keywords:** allergic angioedema, lip edema, laryngeal edema

**PP-102**

**TREATMENT OF CHRONIC UNILATERAL SINUSITIS CAUSING OROANTRAL FISTULA: CASE REPORT**

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Oroantral fistula is an uncommon complication in oral surgery. The literature review revealed various procedures for the closure of oroantral fistulas. These procedures may be subdivided into local flap, distant flap and grafting. Procedures involving local flaps are usually adequate to close minor to moderate size defects. Those procedures utilizing the buccal mucoperiosteal flap as the tissue closure include straight-advancement, rotated, sliding and transversal flap procedures; while those involving the palatal



mucoperiosteum are straight advancement, rotational-advancement, hinged and island flap procedures. The combinations of various local flaps to strengthen the tissue closure are also being advocated. The advantages and the limitations of these procedures are discussed. Distant flaps and bone grafts are usually indicated in the closure of larger defects in view of their greater tissue bulks. Tongue flaps have superseded extra-oral flaps from extremities and forehead for aesthetic reasons and also in view of their similar tissue replacement. Various tongue flap procedures are described. At present, various alloplastic materials such as gold, tantalum and polymethylmethacrylate are infrequently reported in the closure of oroantral fistulas. However, in the light of successful reports over the use of biological materials, collagen and fibrin, in the closure of oroantral fistulas, there seems to be another simple alternative technique for treating oroantral fistulas. In this study, we present the patients who were treated different methods.

**Keywords:** Oroantral fistula, Chronic Sinusitis

#### PP-103

#### NEUROSENSORY EVALUATION OF APPLIED MINI PLATE OSTEOSYNTHESIS IN PARASYMPHYSIS FRACTURES

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Maxillofacial traumatology and ortognatic surgery are major fields of oral and maxillofacial surgery. Internal rigid fixation systems are used for the fixation and stabilization of osteotomized or fractured bone segments. Internal fixation of mandibular fractures with miniplates according to the tension band principle was first introduced by Champy. Advantages of this technique include an intraoral approach in the majority of cases, easy adaptation of the plates, and avoidance of maxillomandibular fixation, which has a multitude of disadvantages including disturbances in phonation, nutritional problems, poor oral hygiene, and a compromised airway.

Nerve damage (lip parasthesia) is observed during the pre-operative, intra-operative and post-operative periods because of parasymphysis region involve in this Nervus Mentalis. In this study we evaluated that mini plate applied patients' neurogical signs of Nervus Mentalis at period of improvement and after to neurological findings in Dicle University-Dental Faculty-Maxillofacial Surgery Clinic.

**Keywords:** mini-plate, parasymphysis fractures, maxillofacial.

#### PP-104

#### RARE OROFACIAL ODONTOGENIC INFECTIONS

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Orofacial infections mostly result from odontogenic reason and polimicrobial agents play an important role in virulance. Bacterial virulance, patient immune system, low resistant of connective tissue and muscle position are important factors in spreading of infections to adjuvant spaces. Early diagnosis and proper treatment are the important factors in the treatment of orofacial infections. If orofacial abscess do not treated properly, complications are observed such as Ludwig's angina, thrombosis of the sinus cavernosus, mediastinitis, orbital abscess, retropharyngeal abscess, osteomyelitis and septicemia. Orofacial abscess is treated by surgical incision + drainage, invasive medical treatment and the last one ethological factor is removed from the intraoral spaces. Socioeconomic factors, particularly ignorance, illiteracy, and poverty, are important contributory factors towards the high incidence of odontogenic abscess in developing countries. In this study, we planned to offer that patients admitted to our clinic with rarely seen facial abscess in Department of Oral and Maxillofacial Surgery, Faculty of Dentistry, University of Dicle. The aim of this study is to evaluate the treatment and clinical features of rare odontogenic abscess and the complications.

**Keywords:** orofacial infections, odontogenic infections, abscess.



**PP-105****HYDROGEL APPLICATIONS IN GUIDED BONE REGENERATION**

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Since the polymer technology has reached advanced levels, researchers have produced many biomaterials and many of these materials have had their position in medical clinical applications. As the other clinical sciences Oral and Maxillofacial Surgery has benefited of these materials as defect fillers or tissue adhesives. The ideal tissue adhesive must be biodegradable and biocompatible' have adequate working time for the application, be user friendly and require little preparation time. It should also have no special storage or shipping requirements. It must be relatively hydrophilic so it can easily spread on wet surfaces at body temperature. The adhesives must be strong, yet flexible, with an elastic modulus similar to the tissue which is being glued. Lastly, the adhesives must have minimal heat generation and degrade with minimal inflammatory response. At the moment, no adhesives on the market has all of these requirements.

Hydrogels (polyethylene glycol) are a group of the synthetic tissue adhesives which can transition from a liquid gel state to a solid form at the application site. These hydrogels have been advised for number of different applications in medicine; drug delivery, sealing the leakage of blood and other body fluids during surgical procedure, barrier membrane at guided bone regeneration (GBR) procedures and filling bony defects. In associated with the latter use, these materials can attach to a tissue surface to form a physical barrier or seal. While the other membranes are produced in standard size and forms, they need to be adapted to the defect, hydrogel products are able to be applied in defect's particular form. This point is a very useful development in GBR. In this report we describe the clinical applications of hydrogels and our sinus augmentation cases which we have used hydrogels instead of collagen membranes.

**Keywords:** Hydrogel Membrane, Tissue Adhesive, Guided Bone Regeneration

**PP-106****EVALUATING VASCULAR ABNORMALITIES WITH DIFFERENT RADIOLOGIC TECHNIQUES**

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Smooth mucosal expansions of the hard palate, related to trauma or congenital factors, are very commonly seen in our clinics. As well as they could be a cystic lesion they could be any kind of Benign tumor. Hemangiomas should always be part of the differential diagnosis of this kind of lesions. Hemangioma is a term that encompasses a heterogeneous group of clinical benign vascular lesions composed of disorganized masses of endothelial-lined vessels that are filled with blood. Hemangioma should always be part of the differential diagnosis of multilocular lesions of the jaw. Fine needle aspiration should be performed before a formal biopsy, because direct biopsy applications can lead to hemorrhage in these cases. Fine needle aspiration test resulting as hemorrhage is a strong evidence of vascular abnormalities. Surgical treatment of hemangiomas continues to be a big problem fraught with the danger of uncontrollable hemorrhage. To avoid this hemorrhagic complications, before the operation all vascular connections and 3D structure of the lesion should be determined. Both plain radiographs and computed tomography (CT) are being used to diagnose and to stage these masses. CT is the best modality to see the exact extension of the tumor. On plain radiographs, the periphery of the lesion may be well-defined and corticated or ill-defined. Magnetic resonance angiography (MRA) is a group of techniques based on magnetic resonance imaging (MRI) to image vascular structure. Since it is a very useful radiologic technique to image the dangerous major arterial connections it should be performed before any kind of invasive application. In this report we describe the importance of imaging in vascular lesions to avoid major complications. Also we evaluate the finds in CTs, MRA and plain radiography findings of same lesions to determine each technique's benefits.

**Keywords:** Magnetic resonance angiography, Computerized tomography, Hemangioma



## PP-107

**IMPLANT THERAPY IN IRRADIATED PATIENTS: FOUR CASE REPORT**

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The treatment of head and neck malignancies has become increasingly successful with improvements in survival rate and functional outcome. Various protocols have been developed over the past years to treat this tumor and different combinations of radiotherapy (RT), surgery and chemotherapy (CT) were used. Adverse effects of RT include mucositis, hyposalivation, loss of taste, radiation caries, trismus, and osteoradionecrosis (ORN) of the jaw. In these patients, loss of teeth worsens the already existing oral function and poor esthetics, thus prosthetic treatment becomes even more troublesome. Rehabilitation with a removable prostheses can be difficult or impossible, due to distorted post-surgical anatomy (both static and functional), low salivary flow. The dental implants have been presented to be an alternative of conventional prosthodontic procedure for edentulous patients for more than 60 years. Research and developments in the field of implantology led successful long term outcomes even in irradiated jaws.

Here we aimed to discuss the influence of head-neck cancer therapy with long term follow up and present four case with implant assisted dental rehabilitation and functional and esthetic outcome.

**Keywords:** dental implants, radiotherapy, prosthetic treatment

## PP-108

**PROSTHETIC REHABILITATION OF A SEGMENTAL EAR DEFECT**

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Ear defects can be reconstructed by surgical operations or with prosthetic procedures. Although surgical reconstruction is usually the first choice, prosthetic reconstruction may provide better aesthetic solutions in some of the cases. Since osseointegrated implants have been used for anchorage of the ear prosthesis, aesthetic thinner edged prosthesis with better aesthetic results could be achieved and life span of the prosthesis have been extended. In this case report prosthetic reconstruction of a 62 years old patient with a defect of the lower half of the ear is presented. Two extraoral implants are placed to the mastoid bone. After three months of osseointegration period implant retained ear prosthesis is fabricated which is offering acceptable cosmetic outcomes. Prosthetic reconstruction requires less surgical attempts and patients return their daily life easily.

**Keywords:** ear defect, prosthetic reconstruction, extraoral implant

## PP-109

**AN EXTENSIVE AMELOBLASTIC FIBROMA OF THE MANDIBLE: A CASE REPORT**

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**INTRODUCTION:** Ameloblastic fibroma (AF) is a relatively uncommon neoplasm of odontogenic origin comprising about 1.5-4.5% of all odontogenic tumors. It has been reported in patients aged 7 weeks to 51 years, but the tumor is considered a tumor of childhood and adolescence. It can appear in either the mandible or maxilla, with the posterior region of the mandible as its most common anatomic site. Clinically patients present as a slow-growing, painless lesion and/or failure of the tooth eruption. Most of the cases are asymptomatic and discovered during routine oral examination. Radiographically, AF appears as well-defined unilocular or multilocular radiolucencies. Histologically, the tumor consists of



strands and groups of epithelial cells in a connective tissue background and does not invade bone.

**CASE:** A 14 year old female patient referred to our clinic with the complaint of a painless swelling present at right mandibular ramus area, which has been progressively enlarging during the past 2 years. The intraoral examination revealed a large painless expansion of buccal and lingual cortical plates of right mandibula extending from the 1st permanent molar to the ramus. A panoramic radiograph showed a multilocular radiolucent lesion with an irregular but well borders, at the molar-ramus area of the right mandible involving the unerrupted 2nd permanent molar. 3rd molar tooth germ was not exist. Under general anesthesia, the lesion was totally enucleated with curettage through an intraoral approach.

**DISCUSSION:** Management of AF varies between reports. In general, conservative approach, such as enucleation with curettage of the surrounding bone, should be applied for young patients. However, tumors have a potentially risk of recurrence following surgical removal. Thus, long-term follow-up of AF is recommended. In this article we report a case of a 14 year-old patient presenting with extensive AF of the mandible which has been developed within 2 years.

**Keywords:** ameloblastic fibroma, mandible, oral surgery

#### PP-110

#### ASYMPTOMATIC PRESENTATION OF OSSIFYING FIBROMA LOCALIZED ON THE MANDIBLE: A CASE REPORT

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**INTRODUCTION:** Ossifying fibroma is a rare, destructive, deforming, benign fibro-osseous tumor of the jaw that is characterized by replacement of normal bone by fibrous tissue containing a newly formed mineralized product. It is usually found in the craniofacial bones, with the mandible being the most common site. Less commonly, the orbit, paranasal sinuses, or maxilla have also been involved. It often occurs in patients in the second to fourth decade of life with a definite female predilection. It is slow growing and asymptomatic until it causes expansion. The expansion of the tumour can result in displacement of teeth or the inferior alveolar canal. The lamina dura of involved teeth is usually missing and the affected teeth roots may be resorbed in some cases.

**CASE:** A 29 year old female patient referred to our clinic for evaluation and management of a asymptomatic radiolucent lesion extending from the right second molar tooth to the mandibular ramus that was incidentally diagnosed in radiographic examination. Intraoral examination revealed no expansion or palpable swelling of buccal and lingual cortex of the right mandible. The 1 molar tooth of the right mandible had been extracted ten years ago. There was no history of pain or parasthesia. Cone beam Computed Tomography (CBCT) showed an irregular margin with no displacement of the inferior mandibular canal and confirmed no calcification. The lesion was completely enucleated under general anaesthesia.

**DISCUSSION:** Surgical curettage or enucleations are the initial treatment of choice for most small ossifying fibromas. The circumscribed nature of the ossifying fibroma generally permits enucleation of the tumor with relative ease. Larger lesions that have destroyed considerable bone may necessitate surgical resection and bone grafting. In this present case we report a asymptomatic presentation of ossifying fibroma that was localized on the right mandible.

**Keywords:** ossifying fibroma, mandible, case report



## PP-111

**ORAL MUCOSAL ULCERATIVE LESION RELATED TO THE METHOTREXATE THERAPY IN A PATIENT WITH ROMATOID ARTRIT**

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Methotrexate is the most important disease-modifying antirheumatic drug and is recommended by national and international guidelines as the first choice for treatment of rheumatoid arthritis (RA). Also, Methotrexate can be used in high doses in the treatment of many malignant diseases together with other cytostatic drugs used as anticancer agents. Long-term use of methotrexate is quite safe and very effective in the treatment of rheumatoid arthritis. However, it may rarely cause severe side effects such as myelosuppression with pancytopenia to agranulocytosis; inflammation and necrotic changes in mucosal tissues; liver cell necrosis and hepatic cirrhosis; pulmonary fibrosis and impairment in kidney functions. In this article, we report a 65-year-old female with a case of inflammation and necrotic changes in oral mucozal tissues due to long-term use of methotrexate.

**Keywords:** methotrexate, rheumatoid arthritis, mucositis

## PP-112

**FLORID OSSEOUS DYSPLASIA: REPORT OF TWO CASES**

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FOD is an alteration in normal bone metabolism that originates from the replacement of the contents of normal cancellous bone with fibrous tissue and cementum-like material, abnormal bone (similar to that seen in fibrous dysplasia), or a mixture of the two.

It usually distributes all along the jaws and it is seen as multiple radiopaque cementum-like masses. There may be a variation in age group from 19 to 76 years and mostly common in the 4th and 5th decades and predominantly exists in females. The condition exhibits an evident predilection for black women and Asians.

Despite the fact that there is esteem in acquiring a panoramic radiography and CBCT to determine the extent of the case, FODs do not require treatment under normal circumstances. Histologically, FODs lesions are comprised of anastomosing bone trabeculae and layers of cementum-like calcifications integrated in a fibroblastic substructure.

The aim of this case report is to focus on the clinical and radiological characteristics of FODs with a presentation of a 2 cases detected incidentally during routine dental examination.

**Keywords:** Florid osseous dysplasia



## PP-113

**BROWN TUMOR OF THE MAXILLA ASSOCIATED WITH SECONDARY HYPERPARATHYROIDISM: A CASE REPORT**

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The giant cell lesion associated with hyperparathyroidism is defined as brown tumors. The overproduction of parathyroid hormone can be secondary to a chronic, abnormal stimulus for its production, such as low serum calcium associated with renal failure or vitamin D deficiency. The affected sites are facial bones, clavicle, ribs, pelvis, and/or femur. We reported a brown tumor of maxilla associated with secondary hyperparathyroidism.

35-year-old male patient with a swelling in the left posterior maxilla was referred to our clinic in 2009. He had end stage renal disease and he had been going into dialysis. Incisional biopsy was performed from the lesion and the result was giant cell granuloma. Blood analysis demonstrated PTH level of 1216,4 pg/mL (12-65 pg/mL). Treatment of lesion had been postponed after the renal transplantation. 4 years after the transplantation, patient again referred to us. In clinical examination, the lesion was persisted within peripheral extensions. Under local anesthesia the lesion was excised and the defect was reconstructed with buccal fat. Uneventful healing was observed.

We report unusual case of brown tumor in the maxilla as manifestation of secondary hyperparathyroidism associated with chronic renal failure. The clinical appearance simulates central giant cell granuloma. Because it is difficult to distinguish histopathologically brown tumor from other giant cell lesions, a clinical decision should be made with considering underlying systemic event.

**Keywords:** brown tumor, buccal fat pad, hyperparathyroidism

## PP-114

**ABDUCENS PALSY AFTER DENTAL ANESTHESIA: A CASE REPORT.**

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**AIM:** A variety of local and systemic complications can occur during the administration of local anesthesia. However ocular complications are uncommon after posterior superior alveolar (PSA) nerve block. Paralysis of the sixth nerve following dental anesthesia was first reported by Goodside and Weigneist in 1946. Since then only a few cases has been reported in the literature. The present case is reported as a rare cause of sixth nerve palsy.

**CASE:** A healthy 54-year-old man, complaining of double vision and exhibiting limitation of abduction of the ipsilateral eye, was examined at our Faculty. He had no remarkable medical condition and any allergic. It is learned that his right maxillary first molar was extracted two months ago. The day after extraction he had severe pain and double vision on his right eye when he fell asleep. Thereupon he admitted to a ophthalmologist and was referred to MRI. Radiology results showed that he had sixth nerve palsy.

**DISCUSSION:** Local anesthetic solutions can reach the orbit through a vascular, neurological, and lymphatic network that is responsible for ocular complications. In this case it is thought that local anaesthetic reached the sixth nerve which travels through cavernous sinus, via the infratemporal fossa and the pterygoid plexus when the patient fell asleep in the supine position. Ocular complications after dental anesthesia are usually temporary and patients are recovered completely in 48 hours. However in this case patient had these complications for about two months. Hence the patient consulted to Neurology Department to start systemic corticosteroid therapy and he is currently under follow-up.

**CONCLUSION:** In order to prevent the ocular complications in dental anesthesia, injection into the vascular system must be avoided. Also a short needle is usually recommended for a PSA block injection as a long needle will harm the pterygoid plexus.

**Keywords:** Abducens palsy, posterior superior nerve block, dental anesthesia complications.



**PP-115**

**A RETROSPECTIVE ANALYSIS OF TRAUMATIC BONE CYST OF THE JAWS**

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**OBJECTIVES:** Traumatic bone cysts are rare in the jaws, and may be characterized by the presence of a cavity in bone with no epithelial lining. Clinically, the lesion is asymptomatic and often discovered incidentally on routine radiographic examination. The purpose of this study was to describe the clinical, surgical, and radiographic features of traumatic bone cysts.

**MATERIALS-METHODS:** Records of the patients with cystic lesions, who were treated in our clinic between 2006 and 2013, were examined. Fifteen traumatic bone cysts were detected among all odontogenic/nonodontogenic cysts. Clinical, radiographical, histopathological features of traumatic bone cysts, and follow-up information of the patients were analysed retrospectively.

**RESULTS:** The mean age of the patients was 21.4 varying from 8 to 59 years. All lesions were found in the mandible, and were diagnosed incidentally during routine dental examinations. Most cases showed a cavity without an epithelial lining, and were treated with curettage. No complications occurred during the follow up period.

**CONCLUSION:** In conclusion, traumatic bone cysts are rare, and the mandible is generally affected site. Bone healing may be accomplished successfully with the curettage of the cyst cavity.

**Keywords:** incidence, mandible, maxilla, traumatic bone cyst

**PP-116**

**RETROSPECTIVE ANALYSIS OF NEUROSENSORY DISTURBANCES RELATED TO DENTAL IMPLANT PLACEMENT IN THE INTERFORAMINAL REGION**

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**OBJECTIVES:** During implant placement in the interforaminal region, the anterior loop of the inferior alveolar nerve may be damaged. Depending on the degree of the injury of this nerve, the alteration in sensation ranges from mild paresthesia to complete anesthesia or neuropathic pain. To avoid such complications, a 5-mm safe distance to the most distal part from the anterior loop has been suggested. The purpose of this retrospective clinical study was to evaluate the risk of neurosensory disturbances resulted from the injury of the anterior loop of the inferior alveolar nerve during implantology procedures in the interforaminal region of the mandible.

**MATERIAL-METHODS:** Panoramic radiographs of patients who were treated with dental implants in our department, between 2006 and 2013, were examined. 51 patients with suspected relationship under a 5 mm distance between anterior loop and dental implant were included to this study. The distance between dental implants and anterior loop of the inferior alveolar nerve was measured on digital panoramic radiographs using a 2D software programme.

**RESULTS:** 51 dental implants had a close relationship to the anterior loop under 5 mm, ranged from 0.01 to 5 mm. Only one patient had sensory disturbances.

**CONCLUSION:** According to the results of this retrospective study, it can be concluded that there is no serious risk for neurosensory disturbances when a dental implant is placed in a distance between 1 to 5 mm. However, computed tomography based clinical studies are needed to evaluate the accurate safe distance for implant placement in the interforaminal region.

**Keywords:** anterior loop of the inferior alveolar nerve, dental implants, interforaminal region



**PP-117**  
**TRIFID MANDIBULAR NERVE CANAL: A CASE REPORT**

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**AIM:** The location and configuration of the mandibular canal are important in surgical procedures involving the mandible. Bifid mandibular canals (BMC) and trifid mandibular canals (TMC) are variations on the normal anatomy with incidences ranging from 0.08% to 65.0%. These variations can be detected on a panoramic radiograph however more precise information about the course of the canal can be revealed on cross sectional tomographic images.

**CASE:** A healthy 63-year-old man presented at our department for a dental implant evaluation. Hence a cone-beam computed tomography (CBCT) was captured at the following settings: 50-90 kVp, 4-10 mA, 10 sec. exposure and 50x50 mm FOV size with a dental tomography unit (Pax Uni 3D). TMC was detected incidentally on sagittal and coronal plane tomographic images on Ez3D2009 pc software.

**DISCUSSION:** A review of the available literature revealed that the occurrence of BMC is unusual but the occurrence of TMC is much more rare. The first-mentioned TMC was only based on a conventional tomography. Recently, CBCT has been used for diagnostic imaging of the oral and maxillofacial regions anatomical structures.

**CONCLUSION:** The main purpose of this case report is to pay attention to an apparently harmful anomaly, which can induce complications when surgery has to be performed. Once the multiple canals are identified from CBCT, the local anesthetic injection technique and surgical procedures should be modified to prevent complications during treatment procedures.

**Keywords:** Trifid mandibular canal, bifid mandibular canal, mandibular canal variations.

**PP-118**  
**SURGICAL CORRECTION OF POSTTRAUMATIC MALOCCLUSION**

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Mandibular fractures are one the most common maxillofacial injuries. Diagnostic errors, poor surgical technique, healing disorders, or complications may lead to the establishment of posttraumatic mandibular deformities. Nonunion, malunion/malocclusion, or facial asymmetry can be found early during the healing process or as long-term sequelae after the initial mandibular fracture repair. The varieties of osteotomy techniques are applied to improve posttraumatic malposition of the maxillofacial bones and occlusal function.

**Keywords:** Mandibular fractures, injuries, malunion/malocclusion, osteotomy, facial asymmetry

**PP-119**  
**FLORID CEMENTO-OSSEOUS DYSPLASIA IN A CAUCASIAN WOMAN**

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Florid cemento-osseous dysplasia (FCOD) is a very rare lesion presenting in the jaws. It usually manifests radiographically as a diffuse, lobulated and irregularly shaped radio-opacities distributed throughout the alveolar processes that are usually bilaterally symmetrical. It is more commonly seen in middle-aged black women. The lesion is benign and requires no treatment unless cosmetically concerning or becomes symptomatic. For the asymptomatic patient the best management consists of periodical review with prophylaxis and maintenance of good oral hygiene. A case of FCOD occurring in a 36-year-old Caucasian woman is reported which is rare with regard to race.

**Keywords:** Fibro-Osseous Lesions; Florid Cemento Osseous Dysplasia



**PP-120****SEGMENTAL OSTEOTOMY FOR REPOSITIONING THE MALPOSITIONED PLACED DENTAL IMPLANT: CASE REPORT**Fatih Özcan<sup>1</sup>, Orçun Toptaş<sup>1</sup>, İsmail Akkaş<sup>1</sup>, Yusuf Ziya Akpınar<sup>2</sup><sup>1</sup>Abant İzzet Baysal University, Faculty of Dentistry, Department of Oral and Maxillofacial Surgery, Bolu, Turkey<sup>2</sup>Abant İzzet Baysal University, Faculty of Dentistry, Department of Prosthodontics, Bolu, Turkey

There are lots of complications due to implant positioning in dental implantology. One of the most frequently seen complication is altered three-dimensional position of implant and related installation problems. Grafting or osteotomy techniques were defined to achieve the right dental implant positioning before the implant surgery. After badly implant placement, the treatment choices are restricted. In our case we had an installation problem because of wrong angled implant insertion at upper left lateral region. Segmental alveolar osteotomy from palatal side of bone was performed and green stick fracture was obtained. The dental implant was fixed to adjacent teeth by ligature wire from distal and mesial. After 4 weeks, the wire was moved and the implant installed with permanent prosthesis. The patient is under follow-up for 9 months after installation and no complication has seen in this period.

**Keywords:** dental implant, segmental osteotomy

**PP-121****UNILATERAL FACIAL NERVE PARALYSIS CAUSED BY DENTAL INFECTION**

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Peripheral facial nerve paralysis is the most common motor cranial neuropathy, and results in inability to control facial muscles on the affected side because of the involvement of the facial nerve, which supplies motor response for the muscles of facial expression. The causes may be viral agents, trauma, vascular ischemia, autoimmune inflammatory syndromes, intracranial lesions or infection. Dental infection may also be an etiologic factor such as wisdom tooth infection. This case report presents a 40 year old male patient who referred to our clinic with a swelling on the left buccal side. Clinical examination revealed a buccal abscess related to the upper left second premolar with a deep caries, and pain. In facial nerve function examination, limitation of the facial nerve motor functions on the left side were observed. The offending tooth was extracted with the drainage of the abscess intraorally, and a 80 mg prednisolone oral tablet was prescribed to the patient for the beginning, and the dose was reduced gradually for the following 7 days. After 10 days, complete resolution of the paralysis was observed clinically.

In conclusion, dental infection related facial nerve paralysis is a rare condition. Complete resolution of the situation can be accomplished with the prompt elimination of the infection, along with corticosteroid administration. Oral and maxillofacial surgeons should be familiar with the causes and treatment options of the condition.

**Keywords:** Dental infection, facial nerve, peripheral facial nerve paralysis

**PP-122****MAXILLARY CANINE AUTO-TRANSPLANTATION: CASE REPORT**Firdevs Akpek<sup>1</sup>, Orçun Toptaş<sup>1</sup>, Ülkü Özcan<sup>2</sup>, Mustafa Tek<sup>1</sup>, Fatih Özcan<sup>1</sup><sup>1</sup>Abant İzzet Baysal University, Faculty of Dentistry, Department of Oral and Maxillofacial Surgery, Bolu, Turkey<sup>2</sup>Abant İzzet Baysal University, Faculty of Dentistry, Department of Endodontics, Bolu, Turkey

Maxillary canine substitution is a clinical challenge. The mostly seen reasons of losing the maxillary anterior teeth are trauma and aplasia at early age. Impacted or ectopic teeth are also indications of auto-transplantation. Auto-transplantation has a good survival rate and patient acceptability, even in the anterior region. In our case, a 22 years old male patient was referred to our clinic for extraction of upper maxillary right canine which is located between upper right second premolar and first molar teeth. After clinical and radiological examination, the primary canine detected. Following primary canine extraction, extraction socket prepared by drills and permanent ectopic canine extracted, transplanted the prepared socket. The tooth is fixed to adjacent teeth with composite resin. Endodontic treatment was performed to auto-transplanted tooth. The patient is under follow-up for one year and no complication has observed.

**Keywords:** maxillary canine, auto-transplantation



## PP-123

**ORAL MALIGN MELANOM: REPORT OF TWO CASES**

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Oral melanoma is an extremely rare tumor arising from uncontrolled growth of melanocytes found in the basal layer of oral mucous membrane. Its incidence varies from 0.2% to 8% of all melanomas. A total of 80% to 90% of oral malignant melanoma arises in the mucosa of maxillary jaw with a majority occurring on the keratinized mucosa of hard palate and gingiva. These are mostly asymptomatic and detected only when there is ulceration or hemorrhage of the overlying epithelium.

On account of the presence at relatively obscure areas in the oral cavity, most of oral malignant melanomas are diagnosed at a late stage. Early diagnosis is essential for successful treatment and perhaps is the key factor in improving the prognosis of oral malignant melanoma.

In this report malign melanom at two female patients on maxillary gingiva will be presented. The lesions were removed by partial maxillectomy and patients were disease free after 1 year of regular follow up. This case provides an example of how dental clinicians play a major role in the identification of pigmented lesions of oral cavity and also emphasize on the fact that any pigmented lesion detected in the oral cavity may exhibit potential growth and should be submitted to biopsy to exclude malignancy.

**Keywords:** malign melanom, maxilla, gingiva

## PP-124

**TREATMENT OF AGGRESSIVE CENTRAL GIANT CELL GRANULOMA WITH INTRALESIONAL CORTICOSTEROID INJECTION**

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Central giant cell granuloma; is a benign bony lesion of the jaws which has aggressive and non-aggressive types. The traditional treatment of central giant cell granuloma is curettage or resection. The other option, specially in the young patients, is non-surgical treatment with alpha interferon, corticosteroids and calcitonin. In this case report, we will present a 25 years old female diagnosed as giant cell granuloma treated with intralesional corticosteroid therapy.

**Keywords:** Central giant cell granuloma, intralesional corticosteroid

## PP-125

**MOLAR AUTO-TRANSPLANTATIONS: CASE REPORTS**

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Auto-transplantation is the transfer of a tooth from its original position to an other site in same person. This site may be either an extraction site or surgically prepared alveolus. Transplantation has an important role in the replacement of young people's missing teeth. Three female patients were referred to our clinic for extraction of lower molar tooth because of profound caries. 47, 36 and 46 numbered teeth from separate patients have been extracted. Impacted 2 lower third molars and 1 upper third molar extracted and inserted the prepared sockets. The 3 patients have been under follow-up for 1 year and no major complication has been detected.

**Keywords:** auto-transplantation, molar teeth



## PP-126

**TREATMENT OF MULTIPLE CYSTS IN 9 YEAR OLD PATIENT: CASE REPORT**Orçun Toptaş<sup>1</sup>, Mustafa Tek<sup>1</sup>, Hakan Şahin<sup>2</sup>, Koray Halicioğlu<sup>3</sup>, Fatih Özan<sup>1</sup><sup>1</sup>Abant İzzet Baysal University, Faculty of Dentistry, Department of Oral and Maxillofacial Surgery, Bolu, Turkey<sup>2</sup>Abant İzzet Baysal University, Faculty of Dentistry, Department of Pediatric Dentistry, Bolu, Turkey<sup>3</sup>Abant İzzet Baysal University, Faculty of Dentistry, Department of Orthodontics, Bolu, Turkey

Odontogenic cysts are the one of the most common lesions affecting the jaws. Odontogenic cysts are originated from epithelial part of odontogenic component or its remnants. A 9 year old female patient was referred to our clinic because of multiple jaw cysts located left mandibular ramus, right mandibular canine and premolar region and left maxillary canine and premolar region. The permanent mandibular left second molar was in the cyst at ramus mandible. The patient was in the mixed dentition period and permanent teeth were under impaction thread. The cyst on the maxillary site was treated by enucleation, right mandibular cyst was treated by decompression, and finally the largest cyst on the right ramus site was teated with marsupialization and enucleation. All cysts were eliminated and the patient is under our follow-up for 1.5 years.

**Keywords:** odontogenic cyst, enucleation, decompression, marsupialization

## PP-127

**PREOPERATIVE EVALUATION OF MAXILLARY SINUS IN DIRECT SINUS LIFT PROCEDURE WITH CBCT AND CORRELATION WITH INTRAOPERATIVE COMPLICATIONS**Gökhan Gürler, Barış Çağrı Delilbaşı

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Cone Beam Computerized Tomography (CBCT) is a commonly used, low- cost technique for evaluation of maxillofacial anatomical structures. It presents slightly more radiation than panoramic radiography and far less than conventional CT scan. Presence of bony septa in maxillary sinus, thickness of Schneiderian membrane and maxillary sinus pathology may complicate sinus lifting procedure. CBCT is preferred for imaging of maxillary sinus anatomy and for detecting the possible anatomical variations of maxillary sinus which may limit or complicate the sinus lift surgery. In our study we aimed to investigate the correlation of presence of bony septa, thickness of Schneiderian membrane and maxillary sinus pathology with membrane perforation, duration of sinus lift surgery and other surgical complications.

**Keywords:** maxillary sinus, sinus lift, CBCT, dental implant

## PP-128

**EFFECT OF 3 ROUTES OF ADMINISTRATION OF METHYLPREDNISOLONE ON EDEMA AND TRISMUS IN IMPACTED LOWER THIRD MOLAR SURGERY**Esra Yüce, Gülperi Koçer

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**PURPOSE:** Surgical removal of impacted third molar because of its anatomical position, involves trauma in both soft and bony tissues that result in edema, pain and trismus. The purpose of this study was to evaluate the efficacy of supraperiosteal injection of methylprednisolon compared with tablet form perorally and intravenous (I.V.) injection of methylprednisolone to prevent postoperative pain and edema associated with inflammation.

**MATERIAL-METHOD:** This randomized, prospective, and controlled study included 44 patients. The samples were randomly divided into four groups: group A (control group), group B (local injection), group C (I.V. injection) and group D (oral tablets). On the second and seventh day following surgery, linear edema was determined using facial landmarks, and maximal mouth opening measurements were performed. Post-



operative mouth opening, swelling were evaluated for each administration and compared. Injection of dexamethasone into the masseteric muscle are achieved similar results and much more effective in reducing pain, edema and trismus than the control group.

**RESULTS:** Female (%59.09) to male (%40.9) ratio was 1,45 and the mean age of patients was 29,6. The level of significance was set at  $P < 0.01$  for mouth opening and  $P < 0.05$  for edema. Three administration routes demonstrated better efficacy on trismus and mouth opening, in comparison to the control group.

**CONCLUSION:** Our results support the observation that masseter injection of methylprednisolone is effective in reducing postoperative edema. Further studies with larger samples are necessary in order to obtain more reliable findings and minimize these undesirable effects among patients.

**Keywords:** methylprednisolone, third molar surgery

#### PP-129

#### TREATMENT OF KERATOCYSTIC ODONTOGENIC TUMOR: CASE SERIES WITH LONG TERM FOLLOW UP

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Keratocystic odontogenic tumor (KCOT) is a benign unicystic or multicystic intraosseous neoplasm of odontogenic origin, which arises from remnants of the dental lamina with an aggressive clinical behaviour including a high recurrent rate. Its most frequent location is the 3rd mandibular area (80%) with a ratio of 2 to 1, mandible to maxilla. Different surgical treatment procedures like marsupialization, enucleation with curettage or peripheral ostectomy and osseous resection have been discussed in the literature. Recurrence is highly expected after the treatment, therefore follow up of these cases is important. We present 4 cases of KCOT's treated with different treatment procedures with long term follow up.

**Keywords:** Keratocystic odontogenic tumor, treatment

#### PP-130

#### EFFECTS OF ORTHOGNATHIC SURGERY ON VOWEL FORMANTS AND CONSONANT /S/

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**AIM:** The aim of this poster was to present the changes of production of vowel formants and consonant /s/ after the correction of negative overjet by orthognathic surgery.

**METHOD:** A 29-year-old male patient was referred to our clinic for the treatment of his concave profile and negative overjet of 5 mm. Cephalometric analyses revealed that the patient had skeletal Class III malocclusion due to maxillary retrognathia (SNA=78°4, SNB=81.6°, ANB= -3.2°). Following a presurgical orthodontic treatment of 8 mounts, maxilla was advanced 8 mm on the sagittal plane by a Le Fort I osteotomy. Presurgical and postsurgical (6 months) speech samples were recorded to evaluate the effects of orthognathic surgery on the production of first two formants (F1, F2) of vowels and spectral center of gravity of consonant /s/. The speech material consisted of 5 vowels (a,e,i,o,u), and sentences containing words with consonant /s/ ('sa', 'se', 'si', 'so', 'su'). Praat 5.3.39 software was used for acoustic analysis.

**RESULTS:** Patient's concave profile and negative overjet was corrected and Class I occlusion was attained by advancement of the maxilla (SNA=84°, SNB=81.8°, ANB= 2.2°, overjet=3.3mm). Acoustic analysis revealed that correction of the Class III malocclusion decreased the F1 of /a/, /e/, /i/, /o/ and F2 of /a/, /i/ vowels while it increased the F1 of /u/ and F2 of /e/, /o/, /u/ vowels. Additionally, orthognathic surgery increased the spectral center of gravity of /s/ consonant.

**CONCLUSION:** Correction of skeletal Class III malocclusion by orthognathic surgery seems to have potential to change vowel formants and production of /s/ consonant by altering the form of anterior oral cavity.

**Keywords:** Orthognathic surgery, Vowel formants, Acoustic analysis



## PP-131

**UNICYSTIC AMELOBLASTOMA: A CASE REPORT**Gonca Duygu, Gül Merve Yalçın, Fatih Cabbar

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Ameloblastoma is a benign odontogenic tumour showing aggressive growth. It shows high recurrence rate after conservative surgical therapy. It is 10 % of all jaw neoplasm. This neoplasm is most commonly found in young adults and shows no sex predilection. Unicystic ameloblastoma, a variant of ameloblastoma first described by Robinson and Martinez in 1977, refers to those cystic lesions that show clinical and radiologic characteristics of an odontogenic cyst but in histologic examination show a typical ameloblastomatous epithelium lining part of the cyst cavity, with or without luminal and/or mural tumor proliferation. It accounts for 5-15 % of all intraosseous ameloblastoma. Unicystic ameloblastoma is believed to be less aggressive and responds more favorably to conservative surgery than the solid or multicystic ameloblastomas. In this poster, we will present 2 years follow-up of a 46-year-old female with unicystic ameloblastoma in the posterior maxilla treated with enucleation.

**Keywords:** unicystic ameloblastoma, maxilla, enucleation

## PP-132

**A TRANSFER METHOD FOR PERI-IMPLANT SOFT TISSUE CONTOURS IN THE AESTHETIC ZONE: A CASE REPORT**Esmâ Kütan Mısırlıoğlu<sup>1</sup>, Tayfun Özdemir<sup>2</sup>, Nilüfer Bölükbaşı<sup>2</sup><sup>1</sup>Yeditepe University, Faculty of Dentistry, Department of Oral Implantology<sup>2</sup>Istanbul University, Faculty of Dentistry, Department of Oral Implantology

**BACKGROUND:** Achieving an optimal emergence profile is crucial in anterior maxilla region. Therefore management of the soft tissue contours and transfer them to the cast by the use of standard healing abutments and impression copings are hard procedures in chair side. There need to be used custom provisional crowns and impression copings for fabricating an ideal implant supported restoration. The aim of this report is to present a precise method for management and transfer of the soft tissue emergence profile.

**CASE:** An immediate implant is placed (Astra Tech Mölndal, Sweden) in left central incisor in the maxilla region of a 20 year old patient. After implant insertion a provisional crown is made by the use of temporary abutment and acrylic resin. During healing phase, contouring of the soft tissue is held by manipulating the temporary crown. After 4 months of healing an ideal soft tissue contour is obtained proper to the maxilla central incisor's emergence profile. In the impression taking session, a custom made impression coping is fabricated by the use of standard impression copings and flowable composite material. Soft tissue contour is transferred to the cast by the help of this custom made impression copings. The cast is used for the fabrication of the emergence profile of the zirconium abutment and the cervical region of the zirconium crown.

**CONCLUSION:** This technique is predictable and easily fabricates in the chair side, also does not need additional time for customization of the impression coping. Therefore the optimal soft tissue contour of permanent crown is obtained by this method in the aesthetic zone.

**Keywords:** dental implant, aesthetic zone, soft tissue management, emergence profile, impression,



**PP-133****UNUSUAL SUPERPOSITION OF STAFNE BONE CAVITY ON THE INFERIOR ALVEOLAR NERVE**Enver Alper Sinanoğlu<sup>1</sup>, Fatih Mehmet Coşkunes<sup>2</sup><sup>1</sup>Department of Oral and Maxillofacial Radiology, Kocaeli University Faculty of Dentistry, Kocaeli, Turkey<sup>2</sup>Department of Oral and Maxillofacial Surgery, Kocaeli University Faculty of Dentistry, Kocaeli, Turkey

Stafne bone cavities (SBC) present asymptomatic conditions and diagnosed during a routine radiographic examination. SBC is mostly located in the posterior region of the mandible, between the mandibular angle and the third molar, below the inferior alveolar nerve (IAN) and slightly above the basis mandibula. SBC may be misdiagnosed and confused with several pathologic entities, such as traumatic and cystic lesions or tumors of the jaw. A cavity was detected which was superimposed on IAN on ortopantomograph of a 46-year-old man referred to Kocaeli University Faculty of Dentistry for implant surgery. Cone Beam Computed Tomography (CBCT) scan were performed for further evaluation. This case report describes a CBCT findings of SBC located on IAN.

**Keywords:** inferior alveolar nerve, stafne bone cavity**PP-134****SUBMANDIBULAR SIALOLITHIASIS: CASE REPORT**Ahmet Hüseyin Acar, Orhan Geçör, Ümit Yolcu

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Sialolithiasis is the most common pathology among the salivary gland pathologies in adults. It is usually seen in submandibular salivary gland. It is more common in the 3rd and 6th decades of life and in males. In this case report, we are aiming to present the treatment of one patient who had a pathology diagnosed as sialolithiasis in our clinic. 43 year-old male patient referred to our clinic with a complaint of painless swelling under the tongue. In clinical examination, a solid mass was identified in his left submandibular salivary gland duct. In radiological examination, radio-opaque mass was observed in the left mandibular premolar region. In the surgical operation, a mass of 26 mm -to18 mm was excised. In the histopathological examination, the tissue was diagnosed as sialolithiasis. In the 2 year follow up of the patient, no recurrence was observed.

**Keywords:** Sialolithiasis, submandibular gland**PP-135****CASE REPORT: AIR GUN PELLET INJURY OF A CHILD**Orhan Geçör, Ahmet Hüseyin Acar, Ümit Yolcu

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Air guns throw bullets at a low speed and generally accepted as guns of low penetration power. Although they are thought to be a kind of toy, they can cause serious injuries. Recently, their increased power and speed caused them to be even more dangerous. In this case report, the treatment of a child who had a air gun pellet in his lip, is reported. A radiopaque subject was observed in radiological examination of a 9 year old male patient, who came to our clinic for routine controls. In the examination of the object that was excised, it was discovered to be an air gun pellet. In the one year follow up of the patient, the was no problem.

**Keywords:** Air Gun Pellet, Foreign Body



**PP-136****PERIPHERAL OSTEOMA IN THE MANDIBLE: CASE REPORT**

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Osteomas are benign bone lesions that can either be in compact or spongy bone structure, expanding slowly. Their localisation in jaw bones is rare and they can cause asymmetry, trismus, and difficulty in swallowing due to their size. They are classified into two groups as central and peripheral. In this case report, the treatment of a peripheral osteoma localised in the internal side of the mandible of a 8 year old male who had Alport syndrome, is presented. The patient referred to our clinic with complaints of difficulty in swallowing and speaking, and swelling in the mandible. In the radiological examination a radiopaque mass was observed in the internal mandible. As the result of the biopsy, it was identified as osteoma. Afterwards the patient was operated and he was relieved of the previous complaints. He is in the first year of follow up period.

**Keywords:** Peripheral Osteoma, Alport syndrome

**PP-137****LARGE RADICULAR CYST EXPANDING TO THE MAXILLARY SINUS: A CASE REPORT.**

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Odontogenic cysts are the most common tissue lesions in the oral and maxillofacial region. These cysts can be divided developmental and inflammatory types according to their etiology. Inflammatory odontogenic cysts are lateral periodontal cysts and radicular cysts. Radicular cysts are usually located at the apices of the teeth with necrotic pulp. Cysts originating from maxillary teeth are confined to the maxillary alveolus. But some cysts enlarge substantially and produce bone erosion with extension into the maxillary sinus. As in our case, most of the radicular cysts slowly expands and erodes the adjacent bone structures. The cyst is noticeable presence of infection and when it becomes large enough. Treatment options include root canal treatment, total cyst enucleation and marsupialization. The aim of this report is to present the diagnosis and treatment of a case of a large radicular cyst with maxillary sinus involvement.

**Keywords:** Radicular Cysts, Maxillary Sinus

**PP-138****TEN CASES OF BISPHOSPHONATE INDUCED OSTEONECROSIS OF THE JAWS: A MULTICENTER STUDY**

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Bisphosphonates (BP) are inhibitors of bone resorption used in the treatment of metastatic bone diseases and osteoporosis. BPs impair bone turnover and compromise bone healing which may result in the exposure of necrotic bone in the oral cavity frequently after trauma of oral mucosa such as tooth extraction. Bisphosphonate induced osteonecrosis of the jaws (BIONJ) is defined as the exposed bone lesions which are present for 6 to 8 weeks in patients who used or using medication of BP and did not received radiotherapy on head and neck area. Treatment of BIONJ enclose conservative therapy to reduce symptoms and resective surgery in patients with extensive bone involvement. In this paper clinical, radiological features and treatment of 10 cases of BIONJ from different medical centers are presented.

**Keywords:** Bisphosphonate, osteonecrosis



PP-139

**PATHOLOGIC FRACTURE OF THE MANDIBLE: A CASE REPORT**

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**INTRODUCTION:** A pathologic fracture is a broken bone caused by disease leading to weakness of the bone. Pathologic fractures of the mandible are rarely seen. In this report, late stage pathologic fracture of the mandible occurred after enucleation of odontogenic cyst is presented.

**CASE:** Sixty-two-year old male patient underwent bilateral cyst enucleation in the mandible under general anesthesia admitted to our clinic with a complaint of pain on the right side of the jaw occurred 1 month after the operation. In Radiological and clinical examinations, simple fracture on the right mandibular corpus was detected. It was also confirmed with cone beam computerized tomography. Mobility and infection were not detected in clinical examination. Arch bars and elastics were placed under local anesthesia, the patient was treated with intermaxillary fixation for 2 weeks.

**DISCUSSION:** Pathological fracture of the mandible occurs in association with chronic osteomyelitis, tumors, cysts, atrophy or osteolysis. These types of fractures cause pain, difficulty in chewing and swallowing. Late stage treatment of pathologic fractures varies according to the type of fracture and the underlying pathology. Pathologic fracture of the mandible can be treated successfully with closed reduction.

**Keywords:** Intermaxillary fixation, closed reduction, Mandible, Pathologic fracture

PP-140

**RETROSPECTIVE ANALYSES OF MAXIMUM MOUTH OPENING IN CHILDREN**

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**OBJECTIVES:** Many epidemiological studies of temporomandibular disorders and restricted mouth opening cases such as temporomandibular joint (TMJ) ankylosis in children have been reported, and primary goal of aforementioned conditions is to restore the jaw functions and reach the maximum mouth opening (MMO). The aim of this study was to determine the MMO in different pediatric age groups.

**DESIGN:** A total of 116 consecutive healthy pediatric patients were included in this study. MMO was measured by a digital caliper, interincisal MMO and the distance between subnasal and pogonion (SP) were recorded. Age, body weight, birth weight, and height of the patients were recorded. Patients were divided into 3 subgroups according to their age (Group 1: 5-7 years, Group 2: 8-10 years, Group 3: 11-13 years).

**RESULTS:** The mean interincisal MMO and SP respectively were 40.6381 mm and 81.8167 mm, in group 1 (n=21); 43.1278 mm and 86.8036 mm, in group 2 (n=58); 42.6384 mm and 89.9951 mm, in group 3 (n=37).

**CONCLUSION:** According to the results of this study, the mean interincisal MMO is more than 40 mm in children in their 5 to 13 years, and SP increases with age.

**Keywords:** temporomandibular joint, maximum mouth opening, interincisal mouth opening



**PP-141**

**CORRECTION OF FACIAL ASYMMETRY WITH UNILATERAL RAMUS DISTRACTION**

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**AIM:** Aim of this poster was to present the treatment of a patient with facial asymmetry by unilateral ramus distraction.

**SUBJECT AND METHOD:** A 22-year-old male patient was referred to our clinic for the treatment of his facial asymmetry. Panoramic, frontal and cephalometric radiographs and 3-dimensional cone-beam computed tomography (CBCT) images were taken. Radiographic evaluation revealed that right ramus height was severely shorter than left ramus. Le Fort I osteotomy was applied to maxilla and a horizontal osteotomy was applied to right ramus. Arch bars were attached to maxilla and mandible and two jaws were ligated to each other via these arch bars. Right ramus was elongated by ramus distraction and maxilla followed the mandible since the jaws were ligated together. Distraction period lasted for xxx days. After the consolidation period of xxx months distractor and the arch bars were removed.

**RESULTS:** Right ramus length increased 15 mm by distraction osteogenesis and facial asymmetry was corrected at the end of the treatment.

**CONCLUSION:** Unilateral ramus distraction is an effective method in the correction of facial asymmetry.

**Keywords:** distraction

**PP-142**

**CONGENITAL GRANULER CELL TUMOR IN NEWBORN: A CASE REPORT**

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**AIM:** The congenital granular cell Tumor (CGCT) is quite rare in the newborn period. We report a two-day-old female newborn with postnatal diagnosis of CGCT and review the relevant literature.

**CASE:** A two-day-old female newborn was admitted to the Department of Pediatric Dentistry with a smooth surfaced, non-fixated mass, found on the frontal section of the mandibular alveole, developing from the gingival mucosa. Clinical examination findings revealed a 1cm x 1cm x 1.8 cm pedunculated, smooth, pink-colored soft tissue mass on the alveolar ridge to the left of the mandible. The child was operated on the sixth postnatal day under general anesthesia. Then the specimen was evaluated histopathologically. Postoperative recovery and surgical site healing was satisfactory.

**CONCLUSION:** The CGCT is a rare, degenerative or reactive lesion of the oral cavity. The diagnosis is suspected clinically and the treatment by simple surgical removal has a curative effect. In addition, histopathology is the gold standard in the diagnostic process.

**Keywords:** Granular Cell Tumor, Mandible, Newborn



**PP-143****THE PROSTHODONTIC REHABILITATION OF A PATIENT WITH MAXILLOFACIAL DEFECT: A CASE REPORT**Cumhur Korkmaz<sup>1</sup>, Osman Cumhur Sipahi<sup>2</sup><sup>1</sup>Balikesir Military Hospital, Dental Service, Balikesir, Turkey<sup>2</sup>Gulhane Military Medical Academy, Department of Prosthodontics, Ankara, Turkey

Maxillary obturator prosthesis is one the most frequent treatment option for management of partial or total maxillectomy. The prosthesis recreates a partition between oro and naso-pharynx and facilitates improvement in mastication, deglutition and speech intelligibility. Maxillary obturators are required for patients with congenital or acquired defects of the palate and/or contiguous structures, allowing for restoration of esthetics and function. A 28-year-old man was referred to the Department of Prosthodontics of Gulhane Military Medical Academy (Ankara ) with the complaint maxillofacial defect involving mid-maxilla and hard palate after the nose and symphyseal defect were surgically reconstructed with autogenous grafts. Maxillary obturator prosthesis was planned for prosthetic treatment.

Impression for custom acrylic resin tray was made with irreversible hydrocolloid (CA 37, Cavex Holland BV, Haarlem, Netherlands) and custom acrylic resin tray (Takilon, Rodont, Milano, Italy) was prepared for the fabrication of the denture. Then, metal framework was designed. Cast metal framework was fabricated in a conventional manner. The fit of the metal framework was evaluated clinically. Jaw relation was recorded by face-bow transfer and transferred on to the semi-adjustable articulator.(Whipmix, Quickmouth 8800, Louisville, Kentucky, USA) Obturator was completed in a conventional manner. After that, it was delivered to patient. Follow-up was done weekly in first months, every 3 months, respectively. The final restoration provided satisfactory aesthetic and functional results.

**Keywords:** Maxillofacial defect, Obturator prostheses, Prosthodontic rehabilitation

**PP-144****A SCHWANNOMA LOCATED AT THE VESTIBULAR SULCUS OF THE ORAL CAVITY, A CASE REPORT**Erol Cansız<sup>1</sup>, Berkem Atalay<sup>1</sup>, Vakur Olgaç<sup>2</sup><sup>1</sup>Oral and Maxillofacial Surgery Department, Dentistry Faculty, Istanbul University, Istanbul, Turkey<sup>2</sup>Institute of Oncology, Medical Faculty, Istanbul University, Istanbul, Turkey

Schwannomas, also known as neurilemmomas are mostly solitary, slow growing and encapsulated uncommon benign tumors originating from schwann cells of the nerve sheath. Although, intraoral schwannomas are rare and account for 1% of all schwannomas of the head and neck portion of the body, most of the schwannomas are seen in the soft tissues of the craniofacial and cervicofacial region. The present article reports 57-year-old woman diagnosed with a schwannoma located at the vestibular sulcus of the oral cavity and the purpose of this report is to emphasize the possibility of diagnosing schwannoma among all other this kind of lesions located at that site.

**Keywords:** Schwannoma, Oral Cavity, Vestibular Sulcus, Neurilemmoma



**PP-145**

**RECONSTRUCTION OF HYPERATROPHIC MAXILLA WITH ANTERIOR ILIAC CREST AUGMENTATION**

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Prosthetic rehabilitation of hyperatrophic jaws is a complicated process. In these kind of cases, most of times, not only fixed prothesis but also removable prothesis may be contraindicated without bone augmentation. Generally, in the hyperatrophic maxilla, bilateral sinus lifting procedure and otogenous bone grafting is required for the implant supported prosthetic rehabilitation. In this case report; reconstruction of a hyperatrophic maxilla with anterior iliac crest augmentation and dental implantation is presented.

**Keywords:** Hyperatrophic Maxilla, Anterior İliac Crest, Autogenous Bone Grafting, Sinus Lifting, Implant Supported Fixed Denture

**PP-145**

**IMMEDIATE IMPLANTATION OF CYST CAVITIES; TWO CASES, TWO YEAR FOLLOW UP**

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Enucleation of cysts may cause bony defects in the jaws and that result complicates the prosthetic rehabilitation of the patient. Immediate implantation of cyst cavities not only reduces the rehabilitation period, but also the bone resorption during cyst cavity healing. Despite the widespread, immediate implantation of cyst cavities is not an effective factor for cyst recurrence in suitable cases. In these two case reports, immediate implantation of cyst cavities were presented and the principles of the immediate implantation of cyst cavities were explained.

**Keywords:** immediate implantation, cyst enucleation, radicular cyst.

**PP-147**

**PRACTICAL GUIDE FOR PALATAL DISTRACTOR**

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Transverse expansion of the maxilla was first performed in 1860 by the help of an orthodontic appliance. The combined surgery with distractors and the orthodontic treatment for maxillary expansion was performed routinely a century after the description. Both, tooth born orthodontic appliances and the different types of distractors are still in use for such treatments. Asymmetrical expansion and the palatal tissue irritation due to distractors are local but important complications of the technique. In this clinical report, we described the new guide which was used for ideal positioning of the distractor and the prevention of asymmetrical expansion.

**Keywords:** palatal, distractor, guide, practical, maxilla



## PP-148

**COMBINED SUPPORTED FULL MOUTH REHABILITATION: A CASE REPORT**

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Osseointegrated dental implants are used to support fixed and removable prostheses for completely or partially edentulous patients. However, in situations where there is no adequate bone to place an implant or where there is inadequate interdental space or failure of an implant to osseointegrate, restoring an edentulous space by connecting natural abutment teeth to the implant is also an option. The advantages and potential problems of connecting teeth with implants have been described in the literature. The advantages include splinting of a mobile tooth to an implant, increased mechanoreception, and additional support for the total load of the dentition. In addition, connecting teeth with implants broadens treatment possibilities for the restorative dentist, reduces the cost for teeth replacement, and avoids the use of cantilevers. This case report describes rehabilitation of partial edentulous patient with implants-tooth connection fixed restorations. A 60-years old Caucasian female patient applied to our clinic with the complaint of partial edentulism leading to disability in chewing and aesthetics. Treatment options were discussed with the patient, including additional implants and restoring the edentulous area with an implant-supported fixed partial prosthesis or a removable partial prosthesis. Considering the patient's request for a fixed restoration, it was decided to proceed with a radiographic evaluation for placement of additional implants and fabrication of an implant-supported fixed partial prosthesis. Six implants were inserted in the edentulous anterior and posterior maxillary area and 5 implants in the both posterior mandibular edentulous areas using a two-stage surgical protocol. After 5 months of healing period, implant and tooth retained fixed full arch prosthesis was fabricated for both jaws. After the delivery of the prosthesis the patient was periodically evaluated clinically and radiographically at 3rd and 6th months. The six months period of the patient did not reveal any complication.

**Keywords:** Full mouth rehabilitation, Combine supported

## PP-149

**LIPOMA OF THE ORAL CAVITY: CASE REPORT**

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Lipomas are the most frequent benign soft tissue tumors. They are usually surrounded by a thin fibrous capsule and composed of mature fat cells. Approximately %15 to %20 of cases occur in the head and neck region and only %1 to %4 occur in the oral cavity. The most common anatomic site in the oral cavity has frequently been reported as the buccal mucosa, followed by floor of the mouth, tongue and the lower lip mucosa. Seven different types of lipomas are described; spindle cell lipoma, intramuscular lipoma, angiolipoma, pleomorphic lipoma, osteolipoma, fibrolipoma, mixlipoma. They usually present as painless, well circumscribed, soft or firm, slow growing submucosal mass. Heredity, fatty tissue degeneration, hormonal imbalance, trauma, infection and chronic irritation have been proposed as etiological factors for lipomas but their etiology remains unknown. In this case report we present a 54 years old man with painless, lokalized swelling at the buccal mucosa which is diagnosed as fibrolipoma. Histological and clinical features of the lesion is discussed.

**Keywords:** Oral cavity, lipoma



**PP-150****THE EFFECTS OF THE COLLAGEN AND THE OSTRICH EGGSHELL MEMBRANES ON WOUND HEALING: AN EXPERIMENTAL STUDY IN RABBITS**Ayşe Selçuk<sup>1</sup>, Ercan Durmuş<sup>1</sup>, İlhami Çelik<sup>2</sup><sup>1</sup>Selcuk University, Faculty of Dentistry, Department of Oral and Maxillofacial Surgery, Konya, Turkey<sup>2</sup>Selcuk University, Faculty of Veterinary Medicine, Department of Histology-Embryology, Konya, Turkey

An ideal wound dressing should provide an environment suitable for rapid infection-free healing and require minimal nursing care. Although some commercial synthetic or composite materials currently meet these requirements, they are expensive and not very user-friendly Ostrich eggshell membrane has been used as a biological wound dressing material to accelerate wound healing and reconstruct damaged tissues. The aim of this study was to assess collagen and ostrich eggshell membranes histologically, transplantation on rabbit's palatal wounds. Thirty 5- month-old New Zealand White rabbits were divided into two groups. Palatal gingival wounds were created by a punch-biopsy (4 mm in diameter) instrument and covered by a collagen membrane for group I and an ostrich eggshell membrane for group II. Gingival biopsies were taken at days 7, 14 and 21, processed for paraffin sections and stained with Crossman's triple stain. Thickness of stratum epithelium and contraction of wounds were assessed. The results showed that the stratum epithelium was not yet occur in both groups on the 7th day. Histometrically, thickness of stratum epithelium between the collagen membrane and the ostrich eggshell membrane applied areas were not statistically significant at days 14 and 21 ( $P > 0.05$ ). Clinical contraction of the ostrich eggshell membrane applied area, compared with the collagen membrane applied area, was not statistically significant at days 7, 14 and 21. Finally, no infection or rejection developed during healing.

In this experimental study, ostrich egg membrane may be an alternative dressing material to the collagen membrane, as it possesses properties of wound protection, promotion of healing and low cost. Therefore, the ostrich egg membrane can be potentially used as a biomaterial, for example, as a dressing material for mucosal wounds.

**Keywords:** Collagen Membrane, Ostrich Eggshell Membrane, Wound Healing, Wound Dressing Material

**PP-151****ORAL REHABILITATION OF AMELOGENESIS IMPERFECTA WITH ORTHOGNATIC SURGERY AND PROSTHODONTICS TREATMENT: A CASE REPORT**Sabri Cemil İşler<sup>1</sup>, Erol Cansız<sup>1</sup>, Bahadır Dindar<sup>2</sup>, Emine Akbaş<sup>1</sup><sup>1</sup>Department of Oral and Maxillofacial Surgery, Istanbul University, Istanbul, Turkey<sup>2</sup>Department of Oral and Maxillofacial Surgery, Aydın University, Istanbul, Turkey

Beside the enamel tissue anomalies, orthognatic disorders can be present in the patient who has amelogenesis imperfecta. Especially anterior open bite development is common. In these kind of patients, it is necessary to correct not only the dental problems but also the orthognatic disorders to obtain ideal esthetic results. In this case report, the patient with amelogenesis imperfecta corrected with orthognatic surgery and dental prosthodontic rehabilitation is presented.

**Keywords:** amelogenesis imperfecta, orthognatic surgery, anterior open bite



## PP-152

**TREATMENT OF A LARGE ODONTOGENIC CYST ENUCLEATED FROM ANTERIOR MANDIBLE: 5 YEARS FOLLOW UP**

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Radicular cysts are the most common odontogenic cysts found in the jaws originate from dental epithelium. They develop with the proliferation of the epithelium at the apex of a nonvital tooth, stimulated by inflammation to form a true epithelium lined cyst. Radicular (periapical) cysts may be localized in the maxilla or mandible. As being asymptomatic in general, radicular cysts can be found in radiologic examination, and localized at the periapical area of the teeth that it originates from. we report a case located in the mandibular symphysis treated and radiologically followed up to 5 years in Marmara University Oral-Maxillofacial Surgery Department.

**Keywords:** devitalized teeth, mandible, radicular cysts, root canal therapy

## PP-153

**RADICULAR CYST: REPORT OF A CASE**

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The radicular cyst is also known as a periapical cyst, apical periodontal cyst or dental cyst. It is the most common of oral cysts. The cyst derives their epithelial lining from the proliferation of small odontogenic epithelial residues (rest of Malessez) within the periodontal ligament as a result of inflammation. A 15-year female referred to our department with the complaints of swelling on her face without any pain. On the radiological examinations cystic lesions were seen in the right posterior mandible region. Surgical procedures were done under conscious sedation and local anesthesia. The cystic lesion was enucleated and first molar tooth that the cyst originates from was extracted. Patient is controlled after 3. and 9. months of operation no sign of recurrence is seen.

**Keywords:** Radicular cyst

## PP-154

**LASER ASSISTED PERIIMPLANTITIS TREATMENT WITH ER. CR: YSGG LASER - 3 CASE REPORTS**

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**BACKGROUND AND AIM:** Implant therapy can lead to peri-implantitis, and none of the methods used to treat this inflammatory response have been predictably effective. It is nearly impossible to treat infected surfaces such as titanium oxide layer that promote osteoinduction, but finding an effective way to do so is essential. The Er,Cr:YSGG laser was effective at removing an even layer of titanium oxide, and the use of water spray limited heating of the irradiated implant, thus protecting the surrounding bone tissue from heat damage. Its excellent ability to effectively ablate dental calculus without producing major thermal side-effects to adjacent tissue has been demonstrated in numerous studies. The aim of this study was to examine the use of Er,Cr:YSGG laser in the treatment of experimentally induced periimplantitis lesions.

**CASE REPORT:** The patients referred to Istanbul University, Department of Oral Surgery with the complaint of pain, swelling and hemaroghia around their implants one year ago. Intraoral examination revealed probing depths of 3 to 5 mm. Routine oral hygiene procedures were carried out and oral hygiene instructions were given. Er,Cr:YSGG laser was used to treat the periimplantitis. At 12 months postoperatively, probing depth was 2 mm, there was no bleeding, implant mobility. The results were satisfactory to the patient and the clinician.



**RESULT:** Peri-implantitis may occur because of biologic or mechanical factors. It can be treated by a variety of methods. The Er,Cr:YSGG laser enabled regenerative osseous surgery around an implant with no complications and with high patient and clinician satisfaction and confidence.

**Keywords:** ER.CR: YSGG, laser, periimplantitis

#### PP-155

#### MAXILLARY TUBerosITY FRACTURE DURING UPPER FIRST PREMOLAR EXTRACTION: AN UNCOMMON COMPLICATION

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Maxillary tuberosity fracture is a common complication that can occur during upper third molar extraction. The factors like backmost location of tooth, lack of bone support on this region, extension of maxillary sinus and osteoporosis increase the fracture risk. The risk of tuber fracture decreases towards anterior. Tuber fracture due to premolar extraction is not very usual in the literature. This poster reports diagnosis and treatment of a case referred to our clinic with a fracture of the maxillary tuberosity during extraction of the upper first premolar.

**Keywords:** Maxilla, Trauma, Tooth extraction, Fracture, Intraoperative Complication

#### PP-156

#### UNTREATED MASS IN HARD PALATE FOR 10 YEARS: PLEOMORPHIC ADENOMA

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Pleomorphic adenoma (PA) is the most common benign salivary gland tumor, accounting for about 40-70% of all major and minor salivary gland tumors. This tumor typically occurs in the fifth decade of life as a slow-growing, unilateral, encapsulated, asymptomatic mass. In this case report presents the clinical findings and the treatment of PA located in hard palate of female who disregarded the mass in her hard palate for nearly 10 years resulted in a massive growth of the lesion.

**Keywords:** Maxilla, Pleomorphic adenoma, Hard palate, Salivary gland

#### PP-157

#### UNCOMMON FOREIGN BODY REACTION MIMICKING INCISIVE CANAL CYST: A CASE REPORT

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Incisive canal cyst is the most common non-odontogenic cyst. This type of cyst is generally consist of proliferation of epithelial remnants of the nasopalatine duct that lies within the incisive canal. Most of them are symptomatic when they become infected. The cyst usually appears with the greater expansion in the projection of incisive canal. We reported a foreign body reaction occurred in the anterior part of the hard palate which was mimicking incisive canal cyst. Radiographic examination, treatment and the SEM analysis of the extracted foreign body was described in this report. Also foreign body reactions of the maxillofacial region and types of material analysis were also discussed in the light of literature.

**Keywords:** incisive, foreign, cyst, infection, palate



**PP-158****KISSING MOLARS: COMPLICATION RISK ASSESSMENT**

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Kissing or rosetting molars is a rare phenomenon that refers to contacting occlusal surfaces of impacted permanent mandibular second, third, and, rarely, fourth molars. Impacted teeth have the same follicular space and the roots in the opposite directions. In this report we presented 8 patients who have uni-bilateral kissing molars. Etiology, differences between impaction, complication risks and the treatment protocol were discussed in the light of the literature.

**Keywords:** Impaction, molar, kissing, complication, treatment

**PP-159****A CASE OF EXTENSIVE PLEOMORPHIC ADENOMA ON THE HARD PALATE**

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Pleomorphic adenoma (PA) is a benign salivary gland tumor that represents about 3-10% of the neoplasm of the head and neck region and arises mainly in the major salivary glands especially in the parotid and less frequently, in the accessory salivary glands. To illustrate a case of extensive PA in the hard palate for ten years without malignant transformation. A 63 year-old male patient referred to our clinic for the swelling at the left side of the posterior palate. Ten years ago, swelling was about a hazelnut size. In the course of time, tumor has grown slowly, painless and without discharge. In surgical treatment, mucosa around the lesion was incised approximately 0.5 cm away. The mass was dissected and excised with safety margins. The patient was followed up for one month and healed uneventfully. PA has a potential risk of malignant transformation if there is a delay in diagnosis. The treatment of PA is adequate surgical excision without disrupting the capsule in order to prevent the recurrence as well as local and distant spreading.

**Keywords:** Pleomorphic adenoma; palate; malignant transformation

**PP-160****LEFORT I OSTEOTOMY FOR TREATMENT OF SEVERELY RESORBED MAXILLAE CONSECUTIVE IMPLANT APPLICATION: REPORT OF 2 CASES**

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Preprosthetic surgery aiming implants insertion is a contemporary modality which is the conclusion of the increasing demand for implant bone prosthesis, even in cases of bony mass deficit. Severe atrophy of edentulous maxilla and progressive pneumatization of maxillary sinus can compromise insertion of dental implants. Ideal implant positioning is limited by inadequate height, width, and quality of the bone. Le Fort I osteotomy and interpositional bone graft is an excellent treatment concept for the dental rehabilitation of patients with atrophied maxilla and reversed intermaxillary relationship. Researchers indicate the transcendent aspect of elevation and preservation of maxillary sinus and nasal mucosa, modifying the sandwich technique by the useful of bone scrapers and piezosurgery.

Two consecutive patients characterized by severely atrophic maxilla were treated in order to resolve maxillary edentulism. All patients underwent pre-prosthetic surgery, including a Le Fort I osteotomy associated with autologous interpositional bone grafts to move the alveolar arch forward and to resolve the maxillary atrophy. Maxillary advancement and alveolar crest augmentation were measured conjunction to dental implant application, suitability and esthetics to assess the degree of reconstruction.

**Keywords:** le fort, maxillofacial reconstruction, osteotomy, edentulous maxilla, implant, otogen graft



**PP-161****SURGICAL TREATMENT OF FRACTURED BONE ON PALATE THAT OCCURRED THREE YEARS AGO**Utkan Kamil Akyol<sup>1</sup>, Berrin Ors Orug<sup>2</sup><sup>1</sup>Department of Oral and Maxillofacial Surgery, Atasehir ADSM, Istanbul, Turkey<sup>2</sup>Department of Periodontology Clinic, Atasehir ADSM, Istanbul, Turkey

Dentoalveolar trauma injuries involve the teeth, the alveolar portion of the maxilla and mandible, and the adjacent soft tissues. This case report describes the surgical treatment of an adult male who suffered dentoalveolar trauma due to a traffic accident three years ago. To our knowledge, a case which is living with fractured bone on his palate is rare, and no other cases of this size have been reported in the literature. Treatment included removal of fractured palate bone which remained attached to the overlying soft tissue and extraction affected tooth. The objective of this treatment was to restore anatomical deficiency and mastication difficulty. Thus, the patient's functional expectations were successfully achieved.

**Keywords:** Palatal bone, trauma**PP-162****INTRA-ARCH DISTRACTION OSTEOGENESIS**Nurdan Kafalı Ünsal<sup>1</sup>, Burcu Bayrak<sup>1</sup>, Gülsün Yıldırım<sup>1</sup>, Celal Irgın<sup>2</sup>, Ali Ihya Karaman<sup>3</sup>, Doğan Dolanmaz<sup>1</sup><sup>1</sup>Department of Oral and Maxillofacial Surgery, Selcuk University, Konya, Turkey<sup>2</sup>Department of Orthodontics, Abant İzzet Baysal University, Bolu, Turkey<sup>3</sup>Department of Orthodontics, Kocaeli University, Kocaeli, Turkey

Distraction osteogenesis is a common treatment option used to reconstruct craniofacial deformities by creating bone. Specific skeletal discrepancies that can be treated with distraction can be divided into segmental deformities and whole-arch deformities. Intra-arch distraction that is used in segmental deformities to resolve transverse and anterior-posterior discrepancies, can be also used for speedy surgical orthodontic treatment and to incorporate ankylosed teeth to occlusion and to treat alveol cleft. In this presentation intra-arch distractions will be adressed and cases about this article will be reported.

**Keywords:** intra-arch distraction, segmental distraction, dentoalveolar distraction**PP-163****RECONSTRUCTION OF MANDIBLE WITH ILIAC CREST AUGMENTATION AND IMPLANTATION AFTER ODONTOGENIC TUMOR OPERATION**Sabri Cemil İşler, Erol Cansız, Emine Akbaş

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Management of jaws after tumor surgery is mostly challenging for prosthodontists and oral maxillofacial surgeons because of the defect formation. Most of times not only dental implant supported prosthesis, but also conventional ones are contraindicated due to bone deficiency. Although there are a lot of alternatives, iliac bone grafting have been widely used for there construction of bone defects due to its resistance to infection and large volume of bone that can be transferred. In this case report, anterior iliac bone grafting and dental implantation after odontogenic tumor surgery is presented.

**Keywords:** atrophic ridge, bone graft, iliac crest, iliac graft, reconstruction



## PP-164

**BASIC FIBROBLAST GROWTH FACTOR ATTENUATES BISPHOSPHONATE -INDUCED OXIDATIVE INJURY BUT DECREASES ZINC AND COPPER LEVELS IN ORAL EPITHELIUM OF RAT**Levent Önal<sup>1</sup>, Gülperi Koçer<sup>1</sup>, Mustafa Nazıroğlu<sup>2</sup>, Ömer Çelik<sup>2</sup>, Derviş Özçelik<sup>3</sup>, Murat Koçer<sup>4</sup>, Tolga Taha Sönmez<sup>5</sup><sup>1</sup>Departments of Oral and Maxillofacial Surgery, Dentistry Faculty, Suleyman Demirel University, Isparta, Turkey<sup>2</sup>Departments of Biophysics, Medical Faculty, Suleyman Demirel University, Isparta, Turkey<sup>3</sup>Departments of Biophysics, Medical Faculty, Cerrahpasa Medical Faculty, Istanbul University, Istanbul, Turkey<sup>4</sup>Department of Medical Oncology, Medical Faculty, Suleyman Demirel University, Isparta, Turkey<sup>5</sup>Department of Oral and Maxillofacial Surgery, Medical Faculty, RWTH Aachen University, Aachen, Germany

**INTRODUCTION:** BPs including zoledronic acid induce oxidative stress, basic fibroblast growth factor (bFGF) modulated glutathione redox systems in cancer tissue and neuronal cells. This study was undertaken to explore a possible beneficial antioxidant effects of bFGF on oxidative stress induced by BPs in oral epithelium of rats.

**MATERIALS AND METHODS:** Twenty-eight rats were equally divided into four groups. The first group was used as control. The second, third and fourth groups were intraperitoneally received BPs, bFGF and BP+bFGF. At the end of 10 weeks, the rats were sacrificed and oral epithelium samples were taken for analyses.

**RESULTS:** In BP group the lipid peroxidation levels were increased in the oral epithelium while the activities of glutathione peroxidase (GSH-Px) and the concentrations of total antioxidant status (TAS) were decreased. In rats treated with bFGF lipid peroxidation decreased and the activities of GSH-Px and concentrations of TAS improved in the oral epithelium. However, zinc and copper levels were decreased in the oral epithelium by BPs and bFGF treatments. Concentrations of vitamin E and reduced glutathione in the samples did not change in the groups.

**DISCUSSION:** To our knowledge, the results presented in this study are firstly reporting the use of bFGF for prevention of oxidative damage in tissues exposed to BP. We observed significant protective effect of bFGF on oral epithelium oxidant and antioxidant values in rats after BP-induced oral epithelium oxidative injury.

**CONCLUSION:** The results presented for BPs on oral epithelium are consistent with a generalized antioxidant abnormality although bFGF induced modulator role on the abnormalities. We also found that bFGF has a modulator effect on oxidative stress and antioxidant redox system in BPs-induced oral epithelium toxicity in rat. Cu and Zn concentrations decreased in the epithelium because they may related used the antioxidants due to the compensatory in the antioxidant redox system.

**Keywords:** Bisphosphonate, Trace Element and Oxidative Stress, Basic Fibroblast Growth Factor

## PP-165

**A CASE REPORT: MAXILLARY INCISIVE CANAL CYST**

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The incisive canal cyst is a developmental nonodontogenic cyst derived from embryonic epithelial remnants of the nasopalatine duct or incisive canal. It is a well-delineated oval or heart-shaped radiolucency located between, and apical to, the two maxillary central incisors directly in the midline. Here we report an incisive canal cyst which was asymptomatic and the adjacent teeth were vital. Surgical enucleation was performed and successful healing of the wound was gained.

**Keywords:** incisive canal cyst, maxilla, nasopalatine duct



## PP-166

**ORAL REHABILITATION OF AMELOGENESIS İMPERFECTA WITH ORTHOGNATIC SURGERY AND PROSTHODONTIC TREATMENT: A CASE REPORT**

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Beside the enamel tissue anomalies, orthognatic disorders can be present in the patient who has amelogenesis imperfecta. Especially, anterior open bite development is common. In these kinds of patients, it is necessary to correct not only the dental problems but also the ortognatic disorders to obtain ideal estetic results. In this case report, the patient with amelogenesis imperfecta corrected with orthognatic surgery and dental prosthodontic rehabilitation is presented.

**Keywords:** amelogenesis imperfecta, anterior open bite, orthognatic surgery

## PP-167

**PEDIATRIC ISOLATED ALVEOLAR FRACTURE IN ANTERIOR MANDIBLE: A REPORT OF TWO CASES**

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Fracture of the alveolar process is a common injury, espacially with the other facial bone fractures. However isolated alveolar fractures in pediatrics are rare. Here we reported two cases of isolated alveolar fracture in two children, treated by traditional splinting of the teeth. The treatment consists of realignment of the bony fragments and the displaced teeth by finger pressure. After the teeth are realigned in a proper position, they are splinted by orthodontic bracelets for 6 months. The root-canal treatments of the teeth in the effected region were performed two weeks after splint. In both patients bone healing and the occlusion were optimal after fracture treatment.

**Keywords:** alveolar bone loss, bone fracture, mandible, pediatric

## PP-168

**DIAGNOSIS AND SURGICAL TREATMENT OF SCC OF THE MAXILLA AND NASAL STRUCTERS:A CASE REPORT**

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Squamous cell carcinoma of oral cavity and pharyngeal region and the adjacent parts, the most common malignant tumor of the paranasal sinuses. It is responsible for 3% of all malignant neoplasias. On radiologic examination it appeared similar to a cystic lesion. Radiotherapy, chemotherapy, and according to the TNM staging system in the radical resection of the tumor with lymph node levels: routine therapy usually consists of three strategies.. A patient reporting with squamous cell carcinoma arising from an incisiv canal cyst of anterior maxilla has been worked up clinically, radiographically, and pathologically. The case was surgically managed and followed up. A 54-year-old female patient with a rapidly growing swelling in the anterior maxilla incisiv duct cyst case preliminary diagnosis was made clinically.. An incisional biopsy obtained from the cyst wall showed it to be incisiv canal cyst with histologic evidence of malignant transformation. The pathogenesis of the tumor, the biologic progression, and prognosis and overall clinical and histopathological features of this rare malignancy is reported and discussed. In this case at our clinic we tried to evaluate the treatment of SCC of the maxilla and the paranasal sinuses by surgical means alone and the radiotherapy, chemotherapy are used after radical surgical resection.

**Keywords:** jaw neoplasias, SCC, malignant tumors, surgical treatment, nasal structers



**PP-169****A CASE OF IDIOPATHIC GENERALIZED GINGIVAL FIBROMATOSIS WITH PERIODONTITIS**Berrin Ors Orug<sup>1</sup>, Utkan Kamil Akyol<sup>2</sup>, Adnan Somay<sup>3</sup>,<sup>1</sup>Department of Periodontology, Atasehir ADSM, Istanbul, Turkey<sup>2</sup>Department of Oral and Maxillofacial Surgery, Atasehir ADSM, Istanbul, Turkey<sup>3</sup>Fatih Sultan Mehmet Education and Research Hospital, Department of Pathology, Istanbul, Turkey

Gingival enlargement has been associated with inflammatory, pharmacological and neoplastic factors. Gingival fibromatosis (GF) is a slowly progressive, benign, non-hemorrhagic, painless, localized or generalized fibrous enlargement of the maxillary and mandibular gingiva tissue. GF can be simply divided into idiopathic and hereditary type. Idiopathic gingival fibromatosis (IGF) is a rare condition that has no specific cause. The aim is to present the a case of 13 year girl who referred to our clinic with the generalized gingival enlargement and mobility in posterior teeth. The gingival enlargement was diagnosed clinically and histologically as IGF and covered the teeth especially at the right left sides and prevented lip clousure. Treatment consisted of extractions and surgical therapy using flap, gingivectomy and gingivoplasty techniques.

**Keywords:** Idiopathic gingival fibromatosis Periodontitis

**PP-170****THE EFFECT OF GENERAL ANESTHESIA ON BLOOD LOSS DURING ORTHOGNATIC SURGERY OPERATIONS**Anne S Blyth<sup>1</sup>, Mehmet Manisali<sup>1</sup>, Ahmet Ferhat Mısır<sup>2</sup><sup>1</sup>Department of Oral and Maxillofacial Surgery, St George's University, London, UK<sup>2</sup>Bülent Ecevit University, Faculty of Dentistry, Department of Oral and Maxillofacial Surgery, Zonguldak, Türkiye

Orthognathic surgery involves surgical manipulation of the facial skeletal elements to restore the anatomic and functional relationships in patients with dentofacial skeletal abnormalities. Many types of osteotomy of the jaw have been described for this purpose; however, we have referred to the Le Fort I osteotomy of the upper jaw and bilateral sagittal split mandibular ramus osteotomy, the most frequently performed osteotomies. The intraoperative blood loss during these operations is frequently abundant and sometimes requires a blood transfusion. Awareness of the possible amount of blood loss during a given intervention is very helpful for clinicians when planning surgery.

**Keywords:** Hypotensive anesthesia, orthognathic surgery, blood loss

**PP-171****ORAL LIPOMA: A CASE REPORT**Burak Ergüder

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Lipoma is a common tumor of soft tissue. Its location on the oral mucosa is rare, representing 1% to 5% of benign oral tumors although it is the most common mesenchymal tumor of the trunk and proximal portions of extremities. The most common anatomic site in the oral cavity has frequently been reported as the buccal mucosa, followed by floor of the mouth, tongue and lower lip mucosa. The clinical presentation is typically as an asymptomatic yellowish mass. The overlying epithelium is intact, and superficial blood vessels are usually evident over the tumor. Although Heredity, fatty tissue degeneration, hormonal imbalance, trauma, infection and chronic irritation have been proposed as etiological agents for lipomas; their etiology remains unknown.

**Keywords:** Oral lipoma, oral mucosa



## PP-172

**COMPARISON OF EFFECTS OF PLATELET RICH PLASMA AND PLATELET RICH FIBRIN ON NEW BONE FORMATION: AN EXPERIMENTAL STUDY IN RABBITS**

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Since concentrations of platelets considered to contain high level of autologous growth factors they become a frequently used modality in recent years to enhance tissue healing. The effects of platelet rich plasma (PRP) and platelet rich fibrin (PRF) on tissue healing were reported separately by a number of papers. The aim of this study is to compare the effects of PRP and PRF on new bone formation in the augmented maxillary sinuses of the rabbits and evaluate PRF as a graft material when used solely.

48 maxillary sinus floor grafting of 24 New Zealand rabbits were included in the study. Rabbits were divided into 3 groups. Right maxillary sinuses were grafted with  $\beta$ -tricalcium phosphate with PRP following maxillary sinus elevation, in the first group (PRP-TCP).  $\beta$ -tricalcium phosphate with PRF was used in the second group (PRF-TCP) whereas PRF used alone in the third group (PRF-S). Left maxillary sinuses were grafted with only  $\beta$ -tricalcium phosphate in all groups (TCP-S). Each group was also divided into two and sacrificed at the end of the 4 weeks and 12 weeks for histologic analysis. New bone formation was found to be statistically higher in PRF-S group than TCP-S at 4th week. No statistical difference was found when PRP-TCP and PRF-TCP groups compared with TCP-S groups though platelet concentrations were found to increase new bone formation in both groups. PRF was also found to show longer term effect when compared to PRP.

PRF alone demonstrates a more satisfactory bone formation in the early phase. Though statistically not proven, PRP and PRF seem to be an inexpensive and effective modality in the formation of new bone when used with other bone substitutes. Larger number of subjects can help more accurate statistical results.

**Keywords:** Platelet Rich Fibrin, Platelet Rich Plasma, Bone Healing

## PP-173

**MUCOEPIDERMOID CARCINOMA: REPORT OF TWO CASES**

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Salivary gland tumors are rare, comprising less than 3% of all neoplasms of the head and neck region. Mucoepidermoid carcinomas are malignant tumors that frequently originate in the major and minor salivary glands. Their malignancy varies. It is generally believed that the tubular structure predominates in low grade malignant tumors, and that poorly-differentiated epidermoid cells predominantly proliferate and form a solid structure in high-grade malignant tumors. Epidermoid carcinomas are graded as high, intermediate or low according to the proportions of mucus-producing cells and epidermoid cells. Although mucoepidermoid carcinoma is generally considered to be a low-grade carcinoma, high-grade variants have been associated with recurrence and metastases both regional and distal, as well as death. A limited number of cases preclude definitive recommendations regarding the proper treatment of mucoepidermoid carcinoma. Reported cases involved treatments ranging from partial resection alone to total resection, radiation therapy, chemotherapy and at intraoral mucosa, incision or excision are performed.

In this report, we describe two cases, which have different type and localization of mucoepidermoid carcinomas in accordance with the diagnose, pathology, treatment alternatives and prognosis.

**Keywords:** Localization, Mucoepidermoid carcinoma, pathology, salivary gland, treatment



**PP-174****A GIANT STONE IN STENSEN'S DUCT: TWO CASE REPORTS**

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Sialolithiasis is a common disorder of the salivary ducts and glands. This phenomenon is characterized by the obstruction of the salivary gland or its excretory of the duct and resulting with salivary ectasia, subsequent dilation of the salivary gland. Sialolith can be located in several places along the length of the salivary duct. Salivary calculi may occur at almost any age but it is rarely seen in parotid duct. The aetiologic factors for sialolithiasis can be classified into two different groups: on the one hand, saliva retention due to morpho-anatomic factors, on the other; saliva composition factors. This report presents clinical and radiologic signs of two unusually large sialoliths which removed before the self exfoliation. Etiology, radiologic findings, scanning electron microscopy analysis and current treatment methods are also discussed in the report.

**Keywords:** duct, infection, parotid, salivary, sialolith, stone, swelling

**PP-175****EFFECTS OF ANKAFERD BLOOD STOPPER ON ALVEOLAR OSTEITIS (DRY SOCKET) FOLLOWING TOOTH EXTRACTIONS: A PRELIMINARY REPORT**

Kübra Titirinli, Hakan Hıfzı Tüz, Umut Tekin, İsmail Doruk Koçyiğit, Fethi Atıl, Fatma Şenses Kuşkaya, Ayşenur Çakır  
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Alveolar osteitis (AO) is inflammation of the alveolar bone which remains amongst the most commonly encountered complications following extraction of teeth. This usually occurs where the blood clot fails to form or is lost from the socket. Numerous studies are available discussing methods and techniques to prevent this condition. Ankaferd Blood Stopper (ABS) is a mixture of five separate plants extracts which acts as a hemostatic agent on the bleeding or injured areas. ABS have considerable therapeutic benefit, because of its anti-infective, antibacterial, antineoplastic and wound healing properties to restore and maintain tissue homeostasis in a variety of diseases. The purpose of this study was to evaluate the use of ABS for the prevention of AO. Systemically healthy and non-smoker 40 patients included in this study as two groups (n=20 experimental group, n=20 control group). Non-traumatic tooth extraction was performed under local anesthesia. In experimental group, 0.5cc ABS with syringe was applied on the extraction sockets and waited 5 minutes for clot formation. In control group, sterile sponge was applied. All patients were recalled for the diagnosis of the AO on the first, third and seventh postoperative days. AO etiologies, clinical effects of ABS are also discussed in this report.

**Keywords:** ankaferd, complications, dry socket, extractions, homeostasis

**PP-176****LARGE COMBINED BUCCAL & SUBMANDIBULAR ABCESS: A REPORT OF TWO CASES**

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Space infections are deep infections caused by mixed flora, especially by gram (+) bacteria, usually originates from odontogenic infections and spread of periapical abscess. Patients with large space infections may represent swelling and redness, pain, trismus, airway obstruction depending on the location and size of the infection. Airway obstruction may be lethal, so the patients should be treated immediately. Here we treated two patients with space infections with combined buccal and submandibular space abscess, by drainage of the abscess and appropriate antibiotic loading and extraction of the causing tooth.

**Keywords:** Infections, surgical drainage



PP-177

**GENERALISED LEUKAEMIC GINGIVAL ENLARGEMENT: A CASE REPORT**

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Leukemia represents several types of malignancies of hematopoietic stem cell derivation. The diseases begin with the malignant transformation of one of the stem cells which initially proliferates in the bone marrow and eventually overflows into the peripheral blood of the affected patient. Leukemias are usually classified according to their histogenesis and clinical behavior as acute, chronic (referring to the clinical course) and myeloid or lymphocytic/lymphoblastic (referring to the histogenetic origin.) The oral manifestations of leukemia include gingival enlargement, oral ulcerations, gingival bleeding, petechia and mucosal pallor. oral lesions occur in both acute and chronic form all types of leukemias; myeloid and lymphoid. Gingival enlargement because of infiltration of premature leukocytes in leukemia is well documented in literature and is one of the most common symptoms leading to the diagnosis of leukemia that directs the patients to seek dental consultation. In this paper we report a case of a patient who reported for bleeding and swelling gums to our department and was diagnosed with acute myeloid leukemia by biopsy.

**Keywords:** acute myeloblastic leukemia, gingival hyperplasia

PP-178

**SURGICAL MANAGEMENT FOR OSTEOMA OF THE TEMPOROMANDIBULAR JOINT CAUSING FACIAL ASYMMETRY AND MALOCCLUSION**

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Osteoma is a benign neoplasm resulting from the slow growth of both cortical and cancellous bone. The most common sites for osteoma development are the flat bones of the skull. Although development of an osteoma in the mandible or maxilla is uncommon, the tumour appears more frequently in the former than the latter. This report is of management under general anesthesia of a 43-year-old woman with osteoma of the mandibular condyle causing facial asymmetry and malocclusion for 3 years. Postoperative orthodontic treatment was performed, and the postoperative course has been favourable. The facial asymmetry and malocclusion have improved.

**Keywords:** Facial asymmetry, malocclusion, mandibular condyle, osteoma

PP-179

**ULTRASOUND-GUIDED ARTHROCENTESIS OF THE TEMPOROMANDIBULAR JOINT: PRELIMINARY RESULTS**

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**AIM:** A modified technique for arthrocentesis of the temporomandibular joint with the guidance of ultrasound imaging is described.

**MATERIAL-METHOD:** The pre-auricular area is covered, a sterile US probe (7 MHz linear probe, Acuson Antares System, Siemens, Germany) is placed over the TMJ, perpendicular to the zygomatic arch and parallel to the mandibular ramus, and tilted out until the best visualisation is achieved (Fig 1). Once a satisfactory visualisation is obtained, static or dynamic evaluation is performed.

**RESULTS:** The US-guided technique was used for arthrocentesis with hyaluronic acid injection in 9 patients, and extra-articular procedures such as autologous blood injection or prolotherapy with serum dextrose injection were performed in 5 patients, with satisfactory results. On the sonograms, the condylar and glenoid fossa surfaces appear as hyperechoic lines, while the articular disc is identified as a thin area of hyperechogenicity surrounded by a hypoechoic halo between the two lines (Fig 2).

**CONCLUSION:** This technique is found reliable, more cost effective than arthroscopy, easy to perform, reproducible even by inexperienced surgeons and does not require general anaesthesia. In addition, US could be useful as a training tool for oral and maxillofacial surgery residents learning to identify the upper joint space for arthrocentesis.

**Keywords:** arthrocentesis, temporomandibular joint, ultrasound imaging



**PP-180**

**ALVEOLAR SPLIT OSTEOTOMY FOR THE TREATMENT OF THE SEVERE NARROW RIDGES: A REPORT OF 16 CASES**

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**AIM:** To analyze the effectiveness of ridge split osteotomy in narrow alveolar crest for the implant supported rehabilitation in patients with partial edentulism.

**MATERIAL-METHODS:** 16 patients were operated and immediately 36 dental implants were placed. In four cases sinus lifting procedure was performed simultaneously. Mean crestal width were calculated as 2.8 mm (2.4-3.8 mm). Average loading time was 4 months.

**RESULTS:** The mean follow-up time was 14.2 months (6-36 months). Sufficient bone volume was obtained in all patients. Implants placed in 16 patients osseointegrated uneventfully. No post-operative complication was observed.

**CONCLUSION:** Implants placed with split crest technique has a high success rate according to the literature. This technique provides an acceptable inter-cortical gap with predictable results.

**Keywords:** dental implant, narrow ridge, osteotome technique, oral surgery

**PP-181**

**BONE EXPOSURE MANAGEMENT WITH PLATELET RICH FIBRIN IN BISPHOSPHONATE RELATED OSTEONECROSIS OF THE JAW CASES: A TECHNICAL NOTE**

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**PURPOSE:** Bisphosphonate-related osteonecrosis of the jaw (BRONJ) is an important complication in cancer patients taking intravenous bisphosphonates (BPs). In most cases, BRONJ is associated with an oral surgery procedure involving jaw bone. Currently, BRONJ management remains controversial, and there is no definitive standard of treatment for this disease. Platelet rich fibrine (PRF) represent a relatively new biotechnology for the stimulation and acceleration of tissue healing and bone regeneration. In this technical note the effectiveness of PRF on closure of bone exposure in BRONJ was evaluated.

**CASE:** A 75 years old male patient was referred to our clinic due to unhealed tooth extraction socket after 4 months of upper right first premolar tooth extraction. Intraoral findings were unhealed tooth socket, purulent drainage, inflamed gingiva, exposed and necrotic jaw bone. The patient had type II diabetes, recurrent multiple myeloma and chronic lymphocytic leukemia. The patient received one year intravenous bisphosphonate therapy for management of multiple myeloma and he had ongoing chemotherapy for lymphocytic leukemia. Superficial curettage was performed at BRONJ area and the combined antibiotics were prescribed to the patient for three weeks. Following two months conservative treatment period, two layer of PRF which is derived from patient's auto log blood applied to exposed bone area and soft tissue closure was obtained.

**CONCLUSION:** PRF can be used as an alternative management method for closure of bone exposure in BRONJ cases. PRF stimulates the restricted gingival healing and acts as a barrier membrane between the alveolar bone and oral cavity.

**Keywords:** bisphosphonate, bisphosphonate related osteonecrosis of the jaw, extraction socket healing, platelet rich fibrin



**PP-182**

**RECURRENT DENTIGEROUS CYST DEPENDING ON OVERLOOKED MESIDENS: A CASE REPORT THE UPPER LIP NASOLABIAL AREA OF AN 21-YEAR-OLD**

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Dentigerous cyst is a developmental odontogenic cyst, which apparently develops by accumulation of fluid between reduced enamel epithelium and the tooth crown of an unerupted tooth. Only 5% of dentigerous cysts involve supernumerary teeth, of which mesiodens is the most frequent type. The vast majority, about 90%, are associated with a maxillary mesiodens. This paper presents a case of dentigerous cyst associated with a mesiodens that caused a painless swelling in the upper lip of an 21-year-old male. Patient was operated twice nearly with an interval of one year in different centres, but recurrence was observed in the same region. Meziodens was observed in the CT images on spina nasalis anterior region. It is estimated that the existence of mesiodens was not noticed, which caused of the observation of recurrence. The patient was treated surgically by enucleation of total cyst and surgical extraction of mesiodens under local anesthesia.

**Keywords:** dentigerous, cyst, mesiodens, recurrent

**PP-183**

**DISTRACTION OSTEOGENESIS FOR THE TREATMENT OF POST TRAUMATIC DEFICIENCY**

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Distraction osteogenesis is used to treat developmental (skeletal deformities such as maxillary and mandibular deficiency, alveolar atrophy, condyle reconstruction, craniofacial congenital malformations, cleft patients, TMJ) and acquired (trauma, severe atrophic alveolus, shooting injury, tumor resection, infection) deformities. Distraction osteogenesis is also a well known tissue engineering technique which prepares both hard and soft tissue in post traumatic patients. Following trauma to the maxillofacial region, patients loose the alveolar bone integrity and the severe scar tissue formation that occurs can make bone grafting technically difficult for bone augmentation. In this presentation, the treatment of a 27 year-old male patient treated by mandibular and alveolar distraction osteogenesis who had severe mandibular deformity as a result of trauma will be presented.

**Keywords:** Distraction osteogenesis, trauma

**PP-184**

**THE MANAGEMENT OF THE OSTEO NECROSIS ASSOCIATED WITH THE USE OF ARSENIC TRIOXIDE IN THE MAXILLA**

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**OBJECTIVES:** The aim of the present case is to introduce the undesirable clinical results associated with the use of the arsenic trioxide which is a cytotoxic dental material.

**DESIGN:** A 35-year-old woman referred to our department complaining of severe pain and gingival recession from her right maxillary lateral incisor. The history revealed that an arsenic devitalizing agent had been applied to the tooth pulp before root canal treatment, in a private dental office. On extraoral examination, there was a light swelling on the labial side. Intraorally, gingival recession, exposed bone and severe mobility were noted on the right first, second ant third incisors. Radiographic examination demonstrated large destruction of bone surrounding the teeth. These symptoms leading to the clinical diagnosis of arsenic trioxide related osteonecrosis of the jaw. A 10-day course of oral amoxicillin+clavulanic acid (1 g preparation) and metronidazole (500mg



preparation) was given. Analgesic drugs and chlorhexidine mouth rinsing solution were also prescribed. To debride the necrotic bony sequestra in the infected area and improve blood flow, the patient underwent 45 sessions of hyperbaric oxygen therapy. Then, sequestrectomy was performed under general anesthesia and the teeth were extracted. The reconstruction of the defect was provided by autogenous grafts which were harvested from the mandibular symphysis and retromolar area. The surgical site was closed primarily.

**MAIN RESULTS:** At three-month recall, clinical examination revealed nothing abnormal. It was decided that after 6 months of operation, implant therapy might provide a solution for the prosthetic rehabilitation.

**CONCLUSIONS:** The management of the alveolar necrosis associated with the trioxide arsenic is a challenge regarding to maintain esthetic reconstruction of the hard and soft tissue. Therefore it should be kept in mind that this material has no more places to use in the modern dental practice.

**Keywords:** arsenic, arsenic trioxide, osteonecrosis

#### PP-185

#### USE OF CONE BEAM COMPUTED TOMOGRAPHY TO LOCATE AND REMOVE A BROKEN SUTURE NEEDLE

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Suture needles can break in operations of oral surgery when they are used to suture the oral mucosa due to application of excessive force, especially if their mechanical properties are weak. Although the broken segment often is found and removed by surgeon during the operation, sometimes more extensive procedures and paraclinical diagnostics may be necessary. In this case, a lost broken suture needle was located using cone beam computed tomography scan and retrieved via surgery.

**Keywords:** cone beam computed tomography, needle, surgical removal

#### PP-186

#### DOES THE NUMBER OF THIRD MOLARS DEPEND ON JAW GEOMETRY?

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**AIM:** The aim of this study was to delineate whether jaw geometry in both sagittal and vertical planes is related to third molar agenesis in the maxilla and mandible independently.

**MATERIALS-METHODS:** Records of 108 patients over the age of 15 were collected. Third molars were classified as congenitally missing when no sign of mineralization of the crown could be identified on radiographs, supported by negative history of previous extraction and no evidence of previous extraction on patient's records. Craniofacial morphology in relation to sagittal and vertical planes was determined using lateral skull graphies. Measurements used on the sagittal plane included SNA, SNB and ANB angles. The measurements on the vertical plane consisted of the lower anterior to total facial height ratio, mandibular plane angle, maxillary plane angle, maxillo-mandibular plane angle. Presence of correlation between agenesis and various face types were determined with Chi square analysis.

**RESULTS:** While individuals with mandibular retrognathism had fewer mandibular third molars (78.9%), those with maxillary retrognathism had fewer maxillary third molars (63.2%). Comparably, individuals with prognathic mandible tended to have more mandibular third molars (92.3%), those with prognathic maxilla had more maxillary third molars (83.3%). Patients with short face and deep bite had higher frequency of third molar agenesis both in the mandible and the maxilla. While those who hypodivergent pattern had fewer third molars in the mandible (72.7% as opposed to 81.8% in hyperdivergent pattern), those with an anteriorly rotated maxilla had fewer third molars in the maxilla (64.7% as opposed to 80% in posteriorly rotated maxilla).

**CONCLUSION:** Absence or presence of the third molars may be associated with jaw geometry.

**Keywords:** third molar agenesis, geometry, sagittal, vertical, maxilla, mandible



## PP-187

**ERUPTION STATUS OF THIRD MOLARS IN RELATION TO AVAILABLE ERUPTION SPACE WIDTH AND ANGULATION**

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**AIM:** In our study, it was aimed to determine the correlation between the eruption status of maxillary and mandibular third molars with the available eruption space in the arch and inclination of the tooth by using quantitative measurements.

**MATERIAL-METHODS:** A total of 117 individuals over the age of 20 were included. Panoramic graphies were examined for the status of eruption of the maxillary and mandibular third molars by measuring the distance from the occlusal table of the third molar to that of the adjacent second molar. Available space for eruption was calculated by comparison of the mesio-distal length of the third molar crown to the length of space distal to second molars. The degree of third molar angulation relative to that of second molar was also measured by the angle formed between the two lines tangent to the buccal cusps on the occlusal table of the third molar and second molar. Pearson test was performed to determine any correlation between parameters related to spatial position of third molars.

**RESULTS:** The fully erupted third molars on average maintained a vertical position  $183^{\circ} \pm 14$  in both jaws. While the mean ramus/crown ratio was  $0.9 (\pm 0.3)$ , in the mandible, tuber/crown ratio was  $1.2 (\pm 0.2)$  in the maxilla where the third molars were fully erupted. The predominant impaction type was vertical in both jaws, which was followed by partial mesial angulation impaction in the mandible and partial distal angulation in the maxilla. When there is available space for the eruption of teeth, in the maxilla 103 teeth got impacted as opposed to 18 impacted third molars in the mandible.

**CONCLUSION:** In both jaws, available space and angulation of third molars are effective on the impaction status of these teeth.

**Keywords:** Mandible, Maxilla, Angulation, Eruption space width

## PP-188

**SKELETAL FACTORS INDICATION OF THIRD MOLAR IMPACTION**

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**AIM:** The aim of this study was to examine the spatial position of third molars with respect to skeletal geometry of the maxilla and mandible.

**MATERIAL-METHODS:** A total of 117 individuals over the age of 20 were included. Panoramic graphies were examined to determine spatial position of the maxillary and mandibular third molars. Available space for eruption was calculated by comparison of the mesio-distal length of the third molar crown to alveolar length distal to second molars. Depth of impaction was defined as the distance from the occlusal table of the third molar to that of the adjacent second molar. The degree of third molar angulation relative to that of adjacent second molar was also measured. The relationship of the maxilla and mandible to the skull base and to each other was evaluated using lateral cephalograms. Parameters in vertical plane included anterior face height ratio, mandibular plane angle, maxillary plane angle and maxillo-mandibular plane angle whereas ANB, SNA and SNB were used for relationship of the jaws in sagittal plane.

**RESULTS:** Our results showed that subjects with hypodivergent mandible had mandibular third molars more frequently impacted. The impaction of third molars is associated with a vertical component the jaws. The angulation of the teeth was correlated with both the eruption space and the jaw dimensions on sagittal plane for both in the maxilla and the mandible.

**CONCLUSION:** In the present study we investigated maxillary and mandibular skeletal landmarks in anteroposterior and vertical dimensions which may be attributed impaction of third molars. The face morphology may give an insight whether third molars will be impacted or erupted into functional occlusion.

**Keywords:** mandible, maxilla, third molar



PP-189

**A LESION MIMICKING GIANT CELL GRANULOMA REVEALS FAMILIAL CHERUBISM**Betül Tas, Nurgul Komerik

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**OBJECTIVE:** Cherubism is one of the very few genetically determined disorders that affect only jaw bones. It is characterized by bilateral, symmetrical multilocular bone resorptions filled with fibrous tissue in the mandible and/or maxilla. Clinically symmetrical swelling of the lower face is evident from around two years of age and increases until puberty. Radiographic presentation of cherubism is characteristic in the active form of the disorder; however in adulthood the diagnosis may be challenging. Diagnosis rests upon a combination of clinical, radiographic and histological findings.

**STUDY DESIGN:** In this case report we present cherubism affecting multiple family members diagnosed through one of which presenting a lesion mimicking central giant cell granuloma.

**CONCLUSION:** Cherubism is inherited in an autosomal dominant manner and may affect multiple members of a family. This case report underlines the importance of a detailed history of the complaint and family history in the diagnosis of the disorder.

**Keywords:** familial cherubism, diagnosis

PP-190

**LUDWIG'S ANGINA; A CASE REPORT**Ceyhun Aricioglu, Fouad Saleh Najafi, Hasan Kucukkolbasi

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Ludwig's angina is a life-threatening cellulitis, or connective tissue infection, of the neck and floor of the mouth which is characterised by progressive submandibular swelling with elevation and posterior displacement of the tongue. It is a rare surgical emergency that should be recognised early and treated aggressively. Despite that, no specific guidelines exist and management is largely dependent on clinical judgment and experience. A 48 years old female patient referred to our clinic with a complaint of bilateral extraoral swelling, pain and trismus. During intraoral examination tongue elevation, inflamed mouth floor noticed and a profound caries was detected at mandibular first right molar. After further examinations patient is considered to have a stable air way. Patient was commenced on intravenous antibiotics and extraoral drainage was applied during the treatment. Mandibular right first molar tooth that caused ludwing angina had an endodontic treatment. After two weeks follow up her symptoms have fully resolved and the patient had neither extraoral swelling nor pain.

**Keywords:** Ludwig's angina, infection, extra oral drainage, antibiotics

PP-191

**MASSIVE SINUS FLOOR AUGMENTATION PROCEDURE USING PLATELET-RICH FIBRIN AND AUTOLOGOUS BONE: A CASE REPORT**Elif Ozcan, Gamze Olus, Barış Sivri, Onur Atalı

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The autologous bone is the gold standard grafting material as it is the only material to have osteogenic properties. The sole use of bone substitutes in massive sinus augmentation procedures remains controversial throughout the literature. Platelet concentrates are important tools of tissue regeneration, and were widely tested in oral and maxillofacial surgery. PRF is also reported to significantly reduce the healing time, and improve the trabecular bone quality in the healing period. The use of Platelet Rich Fibrin (PRF) as a filling material during sinus floor augmentation suggests a reliable option that promotes natural bone regeneration. In this report, the authors present a 54 year-old male patient with severe sinus floor pneumatization (Cawood class VI). Patient underwent a preimplant reconstructive sinus lifting procedure by using



deproteinized bovine bone, autologous bone and PRF. A part of PRF was used as a filling material; the remaining part is shaped in order to form a fibrin membrane which can be transferred onto lateral sinus wall. In the follow-up period, an ideal clinical healing was achieved with no complications. Radiological healing on 120th postoperative day was also found satisfactory with sufficient bone mineral density. Use of amorphous and membranous PRF together with bone substitutes and autogenous bone is a viable option in cases of extremely pneumatized maxillary sinus floor augmentations.

**Keywords:** maxillary sinus floor augmentation, platelet rich fibrin, extreme pneumatization

**PP-192**

**RECONSTRUCTION OF POST SURGICAL BONE DEFECTS WITH A NEW BONE GRAFT MATERIAL (KRYPTONITE): A BIOMECHANICAL STUDY**

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**OBJECTIVE:** Postsurgical bone defects of the jaws are frequently observed after the resection or enucleation of odontogenic cysts and tumors. In order to avoid the risk of mandibular fractures, several methods have been used including, bone grafts or rigid fixation materials such as titanium screws and reconstruction plates. The aim of this study was to evaluate the effectiveness of Kryptonite, a new bone substitute with adhesive properties, to avoid postsurgical fracture in cystic bone defects.

**MATERIALS-METHODS:** Eighteen ribs from recently killed cows were selected that uniformity in shape and dimension. The ribs randomly divided into 1 control and 2 experimental groups, each containing 6 samples. In Group 1, no defect was created and used as control group. In group 2 and 3 a standardize 2 cm defect was created with threphine burr. In group 2 defects was left empty and in group 3 the defect was filled with Kryptonite bone cement. Each rib was placed on the 3-point biomechanical test model designed by the authors, and exposed to compression loads that simulated masticatory loads. These loads were applied by the Lloyd LRX testing machine until samples break and evaluated for yield load, yield point, maximum load, displacement at maximum load, load at 3.0 mm displacement, and stiffness load/displacement data were gathered. Means (medians) of 3 groups were also evaluated. The results of the test were compared using the Paired Sample T-Test.

**RESULTS:** Statistically significant differences were noted between the group 1 (control) and group 2 (the defects left empty) (p:0,04) and group 2 and group 3 (defects filled with Kryptonite) (p:0,03). No significant difference was found between the control group and group 3 (p:0,99).

**CONCLUSION:** Filling the post surgical defects with Kryptonite graft material, can increase the stability of mandible after operation.

**Keywords:** Kryptonite bone graft, bone defect, biomechanic



## PP-193

**MULTIPLE COMPOUND ODONTOMAS OF MAXILLA AND MANDIBLE: A CASE REPORT**

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Odontomas are considered to be developmental anomalies rather than true neoplastic lesions resulting from the proliferation of differentiated epithelial and mesenchymal cells and consist the most common type of odontogenic tumors. These lesions consist enamel and dentin, and can also have variable amounts of cement and pulp tissue. Odontomas occur commonly in the permanent dentition and are rare in relation with primary teeth. Compound odontomas are regularly shaped, solitary or multiple tooth-like structures that dental tissues are represented in a more orderly pattern than complex type. Radiographic appearances of compound odontomas are characteristic. They show calcified structures resembling teeth in the center of a well-defined radiolucent surrounding zone. Odontomas are generally remain intrabony, though in rare cases lesion may erupt into the oral cavity. Clinically, they are often associated with delayed eruption or impaction of permanent teeth and retained primary teeth. The majority of compound odontoma cases are diagnosed before age of 20 years as an coincidental radiographic finding and usually observed solitary on one quadrant. The authors present a 14 year old boy referred to our clinic with a presumptive diagnosis of multiple odontomas on each quadrant. On radiographic examination, multiple well-developed small tooth like structures was observed. After surgical removal of each lesion, specimens were submitted to histopathological study to confirm the diagnosis. An uneventful healing has occurred in all areas.

**Keywords:** Compound odontoma, multiple

## PP-194

**DIAGNOSIS AND TREATMENT OF AN ACTINOMYCOTIC BUCCAL MASS**Elif Ozcan<sup>1</sup>, Sertac Aktop<sup>1</sup>, Onur Gonul<sup>1</sup>, Tanju Kadir<sup>2</sup>, Kamil Goker<sup>1</sup><sup>1</sup>Department of Oral and Maxillofacial Surgery, Marmara University, Istanbul, Turkey<sup>2</sup>Marmara University Faculty of Dentistry, Department of Basic Medical Sciences, Istanbul, Turkey

Actinomycosis is a chronic suppurative bacterial infection characterized by fistulous tracts that contain "sulfur granules" in the discharge. The most frequent clinical form is reported to be cervicofacial actinomycosis. The infection typically invades surrounding tissues without tracing fascial planes, and tends to form masses and mimic various infectious and noninfectious entities including malignancy. Regional lymphadenopathy is not common in initial representation. Actinomycosis is still a disease that poses a great diagnostic challenge, especially in atypical cases, because of its insidious course and non-specific symptoms. Therefore, biopsies for histopathologic evaluation of sulfur granules and identification of organisms, and cultures are essential for definitive treatment. Therapy should be individualized according to initial presentation and response. The authors present a 26 year old male patient referred to our clinic with a 2 month history of a slowly-growing right buccal mass. On clinical examination, an indurated, nontender 4x1 cm swelling of buccal skin with inflamed overlying tissues was observed. With a presumptive diagnosis of actinomycosis, incision, drainage, curettage of tunnel-forming tracts and administration of a plastic drain were performed. A needle aspiration biopsy was obtained from the lesion. Actinomyces bacteria have been identified by histopathologic and microbiologic examination. Patient underwent a short-term Penicillin and Doxycycline course, and on the 4th month follow up, significant regression of the lesion has achieved. In the literature, prolonged periods of (6-12 months) antibiotic treatment have been declared to be indispensable for an effective eradication of disease. This is particularly true for late-stage large lesions and patients who received intermittent antibiotic therapy. Nevertheless, there are several reports that depict success of short-term courses ranging from 10 to 104 days, especially in cervicofacial actinomycosis. Close monitoring of clinical and radiological response is necessary, especially if a shorter regimen is considered.

**Keywords:** actinomycosis, cervicofacial, infection



## PP-195

**RECURRENT AMELOBLASTOMA: A CASE REPORT**Belgin Gülsün, Zozan Erdoğan, Mahmut Koparal

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Ameloblastoma is defined as a benign, but locally invasive epithelial odontogenic neoplasms of the jaws, with several distinct types. According to the 2005 World Health Organization classification, ameloblastoma is divided into 1) a solid or multicystic type, 2) an extraosseous or peripheral type, 3) a desmoplastic type, and 4) a unicystic type. Each type has a specific biological behavior and thus a different prognosis and treatment. Ameloblastoma is an odontogenic tumor of the jaw that accounts for 1% of all oral tumors. Ameloblastoma appears more frequently in the mandible (80% of all cases), particularly in the angle and ramus, although it can occur in any mandibular region. The definitive diagnosis is histologic, but it can be effectively aided by imaging. Many ameloblastomas are asymptomatic and identified incidentally by orthopantomography (OPT). Diagnosis is usually completed with computed tomography (CT) to assess the horizontal and vertical extent of the tumor, as well as its relationship to the alveolar nerve, teeth, and soft tissues. Ameloblastoma also has a 10-90% recurrence rate, if treated with enucleation and curettage. In our case we report a recurrent ameloblastoma is presented. The patient was operated in a different of medicine with the diagnosis of ameloblastoma in 2008. This patient referred us in 2010 with the recurrent ameloblastoma. We applied marginal resection. No recurrent was seen during the following period of three years.

**Keywords:** Ameloblastoma, marginal resection, recurrence

## PP-196

**ENDOSCOPIC REMOVAL OF A HUGE SIALOLITH: REPORT OF A CASE**Cem Üngör, Fatih Taşkesen, Burak Cezairli, Zeynep Gümrükçü, Gülsüm Coşkun, Sadi Memiş

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**INTRODUCTION:** Sialolithiasis is a disease characterised by the development of salivary stones, known as sialoliths. Salivary stones larger than 15 mm are classified as giant sialoliths. Their management has always been a therapeutic challenge. More than 80% of salivary sialoliths occur in the submandibular gland or in its duct. It is believed that salivary calculi develop as a result of deposition of mineral salts around a nidus of bacteria, mucus, or desquamated cells. Submandibular stones are composed of 82% inorganic and 18% organic material and they are rarely larger than 15 mm. The aim of this article is to report a case of removal of a huge sialolith with intraoral endoscopic approach.

**CASE PRESENTATION:** A 74-year-old male was referred to the Karadeniz Technical University, Faculty of Dentistry, Department of Oral and Maxillofacial Surgery of the assessment of swelling in the floor of the mouth. Patient's medical history was unclear. At the time of examination there was no pus drainage and pain around the swelling area. Patient's chief complaint was unable to use removable prosthesis. Radiological examinations revealed a radiopaque mineralised body along the mandible body on the right side. Patient operated under local anesthesia for endoscopic removal of the sialolith.

**DISCUSSION:** Sialendoscopy is a reasonable method for removing sialoliths and also eliminates the need of salivary excision. The aim of this case report was to introduce the removal of a huge sialolith with endoscopic assisted intraoral approach

**Keywords:** sialolith, endoscopy, huge sialolith



## PP-197

**RECONSTRUCTION OF ATROPHIC POSTERIOR MANDIBLE WITH SANDWICH OSTEOTOMY: A CASE REPORT**Murat Ulu, Hüseyin Akçay, Fatih Günhan, Muhammet Furkan Cıçık

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Extensive loss of alveolar bone and teeth in the posterior mandible presents a complex problem for reconstruction. Vertical augmentation is commonly required because of the high location of the inferior alveolar nerve. Numerous augmentation techniques are currently in use to create sufficient bone volume for secure placement of dental implants in the case of severely resorbed mandibles. These methods are onlay block grafting, distraction osteogenesis, guided bone regeneration, and nerve transposition. In this case report 32 years old woman who has partially edentulous left mandibular crest treated for implant procedure. A complete osteotomized segment was made, using the piezoelectric saw, to make a segmented bone in the atrophic edentulous area and the mobile segment was elevated by 10-mm high vertically. Interpositional block allograft materials were inserted in the space between the basal bone and the segmented bone. The elevated segment is dimensionally stable because of maintained periosteal blood supply. The technique can be performed in one surgical procedure. The graft resorption is less than other methods. Interpositional "sandwich" osteotomy bone grafting is an ideal treatment option in patients with inadequate mandibular alveolar crests.

**Keywords:** block graft, implant, augmentation, sandwich osteotomy

## PP-198

**KISSING MOLARS: REPORT OF A CASE**Sıla Şahin<sup>1</sup>, Kadir Anıl Naneci<sup>2</sup>, Erdal Erdem<sup>2</sup><sup>1</sup>Republic of Turkey Ministry of Health, Topraklık Oral and Dental Health Center, Ankara, Turkey<sup>2</sup>Ankara University Faculty of Dentistry, Department of Oral and Maxillofacial Surgery, Ankara, Turkey

In this report of a case, we report the management of 19 year-old female patient admitted to the Department of Oral and Maxillofacial Surgery for extraction of left impacted kissing molars determined coincidentally in a panoramic radiograph which has taken before restorative dental treatments. Kissing molars refers to impacted permanent molars that have occlusal surfaces contacting each other in a single follicular space with roots pointing in opposite directions. Kissing molars are an extremely rare condition. Unfortunately, extractions of kissing molars are challenging. Although, in asymptomatic patients a close observation without surgery is advisable, the expansion of dental follicle around teeth detected and the surgical removal of the third and fourth mandibular molars of our patient was decided.

**Keywords:** kissing molars, mandibular molars

## PP-199

**SURGICALLY MANAGEMENT OF DENTIGEROUS CYST AROUND AN IMPACTED MANDIBULAR THIRD MOLAR IN ADDITION TO ROOT RESORPTION OF SECOND MOLAR: REPORT OF A CASE**Sıla Şahin<sup>1</sup>, Kadir Anıl Naneci<sup>2</sup>, Erdal Erdem<sup>2</sup><sup>1</sup>Department of Topraklık Oral and Dental Health Center, Republic of Turkey Ministry of Health, Ankara, Turkey<sup>2</sup>Department of Oral and Maxillofacial Surgery, Ankara University Faculty of Dentistry, Ankara, Turkey

A 23 years old male admitted to the Department of Oral and Maxillofacial Surgery for extraction of third molars. His past medical history was unremarkable. Intraorally and extraorally there wasn't an expansion of the buccal cortical plate. In radiological examination, an asymptomatic radiolusency around the impacted third molar without swelling over the left body of the mandible was recognized. A panoramic radiograph showed a normally erupted mandibular second molar and an impacted mandibular third molar with a single follicular space in addition to the unusual root resorption of second molar tooth. Aspiration yielded a yellowish



straw coloured fluid. With preservation of bone continuity, by virtue of the lesion's containment with an encapsulating connective tissue envelope derived from the surrounding bone. Both these molars, together with the associated follicular tissue, were removed under local anaesthesia. A diagnosis of dentigerous cyst was made after histopathological examination of the follicular tissue. Post operative healing was uneventful in 5 months of follow up.

**Keywords:** dentigerous cyst, mandibular molars

#### PP-200

#### LOCAL ANESTHESIA COMPLICATION CASE REPORT: EDEMA ASSOCIATED WITH CHLORHEXIDINE GLUKONATE

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33-year-old male patient admitted to our clinic complaining of swelling and pain in the left side of his face. As a result of history from the patient, the patient's left lower 3 applied before large molar extraction under local anesthesia of the substance is injected into the inferior alveolar regional anesthesia, a 2% chlorhexidine gluconate (antiseptic solution irrigation) learned that. Out of the mouth of the patient examination, swelling of the left side of his face saptanmıştır. Ayrıca the limitation of mouth opening was detected. Intra-oral examination, the inferior alveolar edema in the area of regional anesthesia is applied, 3 erythema and edema at the site of molar teeth, the tooth crown was found to be broken. Radiological examination of the tooth crown is broken, but the roots of some çekilmediği observed. Taking into account the patient's history, the patient is injected into the tissue of 2% chlorhexidine gluconate (antiseptic solution irrigation) were diagnosed with edema due to a. Glukonata injected into the tissues due to edema of 2% chlorhexidine applied to any antibiotic treatment. Pain is for the table NSAIDs, the patient was prescribed oral hygiene rinse the mouth to correct. 1 week after the control is called, the patient partially decreased edema in the left side of his face. 3 Trismusun the bottom left with the passing of molar tooth extraction took place. No complications were encountered with the control of the patient appointments.

**Keywords:** chlorhexidin glukonate, edema, trismus

#### PP-201

#### TRISMUS DUE TO BILATERAL CORONOID HYPERPLASIA IN AN ADOLESCENT: A CASE REPORT

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Hyperplasia of the bilateral coronoid processes causes limitation of mouth opening due to impingement of coronoid process with the temporal surface of the zygomatic bone, or with the medial surface of the zygomatic arch. The condition can be diagnosed by panoramic radiographs and with computerized tomography scans. In this case report, trismus due to bilateral coronoid process hyperplasia in a 15-year-old boy treated with intraoral coronoidectomy and physiotherapy was presented.

**Keywords:** Coronoid hyperplasia, trismus, coronoid process, coronoidectomy



**PP-202**

**THE TREATMENT OF PERIPHERAL CEMENTO-OSSIFYING FIBROMA IN TOTALLY EDENTULOUS PATIENT: A CASE REPORT**

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Peripheral cemento-ossifying fibroma [PCOF] is a reactive gingival overgrowth occurring frequently in the maxillary anterior region in teenagers and young adults. Here, we report a case of PCOF in a 55-years-old male, which was previously surgically excised. PCOF should be considered in differential diagnosis of such reactive hyperplastic lesions originating from the gingiva. Hence, early diagnosis with proper surgical excision and aggressive curettage of the adjacent tissues are essential for prevention of recurrence.

**Keywords:** Peripheral cemento-ossifying fibroma, surgically excision, hyperplastic lesions

**PP-203**

**REMOVAL OF AN IMPLANT COVER CAP ACCIDENTALLY DISPLACED INTO THE MANDIBULAR CANAL**

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The surgical procedure of dental implant placement is very well established over the years. The findings of long-term clinical studies and reports of high success rates have led to the consideration of dental implant placement as a predictable treatment modality, in complete or partially edentulous cases. Intraoperative complications related with dental implant placement are hemorrhages, neurosensory alterations, damage to teeth adjacent to the implant, mandibular fractures and compromised primary implant stability. Complications-especially related to bone quality is well documented in the literature and surgeon can predict it during the preoperative preparation period. However, rare complications such as migration are unexpected and may occur. The implant migration into the ethmoid sinuses, sphenoid sinuses, maxillary sinuses, orbit and cranial fossae have been reported in the literature. This report presents a unique case of implant healing cap displacement into the mandibular canal, in an old-aged woman. The aim of the report is to present the radiological assessment, computer tomography analysis and details of surgical removal procedure of the case.

**Keywords:** complication, dental implant, mandibular canal

**PP-204**

**CONSERVATIVE APPROACH TO A LARGE SIZE OF ODONTOGENIC CYST: A CASE REPORT**

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**INTRODUCTION:** Dental cysts are defined as those cysts that arise from odontogenic epithelium and occur in the tooth-bearing regions of the jaws. A noticeable number of dental or jaw cyst cases, however, are diagnosed incidentally during routine dental examination. Excision is can cause damaging anatomic structures such as eyes, sinus, inferior alveolar nerve etc. Otherwise, marsupialisation is more reliable or useful treatment option for this kind of lesions. In this study, we presented a female patient with huge maxillary odontogenic cyst.

**CASE:** A 34-year-old female patient was referred to our oral and maxillofacial surgery clinic due to cystic lesion in upper right jaw from the radiology clinic. Patient had no history of systemic disorder. According to the clinical and radiological examination, the patient had odontogenic radicular cyst, extending



to below orbital cavity, affected the teeth 11, 12, 13, 14, 15 and 16. The vitality test revealed that those teeth de vital, so endodontic treatments were carried out. The teeth 12 and 13 were extracted due to excessive displacement of roots. After that, marsupialisation was selected as a treatment option and an acrylic splint-type decompression appliance was constructed and inserted to teeth 12 and 13 places. The patient is still under follow-up period.

**CONCLUSION:** In most of the cyst cases, enucleation is the first treatment option. Unfortunately, sometimes it does not provide ideal beneficial result to patients that cause major surgical complications especially it hurts the vital region like eyes, nose, sinuses, etc. Additionally, the fact that decompression requires longer time when compared with other methods of treatment and it also reduces the chance of loss of teeth vitality, a pathological fracture, or bony discontinuity with definitive treatment. In this study, marsupialisation, a conservative and reliable treatment choice, was applied to this case.

**Keywords:** decompression, marsupyalizasyon, odontogenic cyst

#### PP-205

#### FABRICATING ZIRCONIA RESTORATIONS WITH CUSTOMIZED PROVISIONAL ABUTMENTS AT THE ESTHETIC ANTERIOR MAXILLARY REGION- A CASE REPORT

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**OBJECTIVE:** The aim of this case report was to transfer the modified peri-implant soft-tissue emergence profile developed by customized provisional abutments. Design: The emergence profile is developed by adding composite filling material to the implant abutments at the chair side creating the cervical contour of the planned crown for papilla formation and fabrication of an esthetic restoration at the maxillary anterior region.

**RESULTS AND CONCLUSIONS:** This technique results in an implant-supported restoration that creates its own emergence profile customized by provisional abutments with an improved esthetic outcome of the final restoration. The final restoration is finished with a zirconia abutment and zirconia implant-supported bridge restoration to maintain the expected esthetical outcome. The technique needs additional chair time and connection with the laboratory technician for the customization of the impression coping and the fabrication of the provisional restoration. Emergence profile can be accurately given by this method following the biological contact point rules for the biological width concept.

**Keywords:** Customized abutments, emergence profile, zirkonyum



## PP-206

**SIALOLITH IN SUBMANDIBULAR GLAND: A CASE REPORT**

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Sialoliths also known as calculi or salivary stones are solid masses occurs in salivary glands or ducts. Their frequency of occurrence is % 1-2. They are most common in submandibular gland (>% 85). Sialoliths in parotid (% 6-15) and sublingual glands (% 2) are uncommon. They are mostly single and smaller than 10 mm. The stones larger than 15 mm are rare. 36 age male patient, suffering from pain and swelling in floor of the mouth was referred to our clinic. In clinical examination a large solid mass in Wharton duct was palpated in sublingual region. No lymphadenopathy was observed. The diagnosis was confirmed by panoramic radiograph and computed tomography. Transoral approach was planned for excision because of the location of the stone. The incision was performed by diode laser to expose the sialolith. After a careful dissection the sialolith was removed. It was measured 1.9 mm. After 7 months follow up time, no recurrence was noted and the salivary flow was normal.

**Keywords:** sialolith, submandibular gland, wharton duct, calculi

## PP-207

**THE HUNT FOR TMD PATIENTS AWARENESS OF BRUXISM**

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Temporomandibular disorder is known as a collective term involving many clinical problems which are seen in masticatory muscles, TMJ and associated structures or both. The etiology of TMD can be biomechanical, neuromuscular, biopsychological, or neurological. Moreover, parafunction, (bruxism), trauma, hypermobility, stress, personality, age gender, heredity and systemic disorders may lead to TMD. Bruxism has been suggested as an initiating factor for the TMD. The prevalence of sleep bruxism is difficult to estimate, because quite often, the subjects are unaware of having the disorder. In this study the prevalence of bruxism awareness is detected on 106 patients. TMD assessment questionnaire is used to determine the severity of the TMD. Moreover the distance of mouth opening is evaluated. As a result of this study there were no significant value is evaluated between the awareness of bruxism and TMD on patients.

**Keywords:** TMD, bruxism, awareness

## PP-208

**CAN GLANDULAR ODONTOGENIC CYST BE ASSOCIATED WITH TRAUMATIC BONE CYST?**

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The traumatic bone cyst is a benign, empty, or fluid-containing cavity within bone that is devoid of an epithelial lining. Although a definitive cause has not been established for this lesion, the traumatic bone cyst is believed to occur as a result of trauma to the bone, which leads to bleeding within the bone. If the hemorrhage does not repair and organize itself, an empty cavity, or traumatic bone cyst, remains. Depending on the size, site, and extent of the lesion, there are various treatment options. Glandular odontogenic cyst (GOC) is a recently recognized rare developmental odontogenic cyst having an



aggressive behavior. GOC usually presents as a painless, slow-growing swelling that tends to affect the anterior part of the jaws. It is concluded that trauma could be a precipitating factor for its occurrence. Aggressive nature of the lesion has been reported, as supported by the fact that 25 to 55% of cases recur following curettage. In this case we presented a 39 year old female patient referred to Ondokuz Mayıs University Faculty of dentistry with a complaint of her anterior teeth in maxilla. A radiolucency determined in the anterior maxilla in radiographic evaluation and the pulp vitality tester indicated that the teeth were vital. When the patient operated under local anesthesia, empty bone cavity was seen and diagnosed as traumatic bone cyst based on the histopathologic report. After five years, patient referred again with complaint at the same region. Radiologic examination showed large radiolucency extending to the maxiller sinus. Marsupialisation performed and the result of the histopathologic analysis was glandular odontogenic cyst.

**Keywords:** glandular odontogenic cyst, traumatic odontogenic cyst, trauma

PP-209

#### ASSESSMENT OF AWARENESS ABOUT AIDS IN MARMARA DENTAL SCHOOL STUDENT POPULATION

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Acquired immunodeficiency syndrome (Aids) is a pandemic disease which was first discovered in 1981 in US. Its etiologic agent Human Immunodeficiency Virus (HIV) was first described in 1983. According to the recent researchs; 33.4 million people are living with HIV worldwide and about 3 million people become infected per year. According to the researchs in Turkey, it was reported that number of HIV positif people and people with Aids on record was 5224 between the years of 1985-2011. The complete treatment and preventive vaccine for Aids is still being studied. However there is no certain solution. For this reason, it's known that the prevention is more important than the treatment. The first and most important step for prevention from HIV infection is the consciousness about the transmission ways of the virus. The major transmission ways of HIV are sexual, from mother to child and through blood transmission. The aim of our survey is to investigate the consciousness of the dentistry faculty 4th and 5th class students about HIV and its transmission, to evaluate their attitudes to HIV (+) patients and to determine their information level about this infection, its control and the difference from other infections (HBV, HCV). The 4th and 5th class students answer were compared with each other.

**Keywords:** AIDS, awareness, survey

PP-210

#### A MULTIDISCIPLINARY APPROACH IN THE TREATMENT OF FOLLICULAR CYST OF MANDIBULA WHEN THERE IS A RISK OF FRACTURE: A CASE REPORT

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Follicular cysts are commonly encountered in the practice of oral maxillofacial surgery. They can be diagnosed by clinical examination and conventional x-ray findings. Due to the tendency for dentigerous cysts to expand rapidly, they may cause pathological fractures of jaw bones. The treatment plan for follicular cysts counts on an initial decompression to reduce the size of the osseous defect, followed by enucleation and tooth extraction. In this presentation orthodontic braces application for intermaxillary fixation in case of an intra operative fracture followed by enucleation of the follicular cyst and extraction of related teeth is revealed.

**Keywords:** follicular, cyst, imf, enucleation, pathologic fracture



PP-211

**TREATMENT OF ODONTOGENIC KERATOCYSTIC TUMOR (OKCT) IN RETINOBLASTOMA TREATED WITH RADIOTHERAPY: A CASE REPORT**Özkan Özgül<sup>1</sup>, Yasemin Kartal<sup>2</sup>, İsmail Doruk Koçyiğit<sup>3</sup>, Fatih Mehmet Coşkunes<sup>4</sup><sup>1</sup>Department of Oral and Maxillofacial Surgery, Ufuk University, Ankara, Turkey<sup>2</sup>Private Practice, Ankara, Turkey<sup>3</sup>Department of Oral and Maxillofacial Surgery, Kırıkkale University, Kırıkkale, Turkey<sup>4</sup>Department of Oral and Maxillofacial Surgery, Kocaeli University, Kocaeli, Turkey

Retinoblastoma is a rapidly developing cancer that occurs in the cells of retina, the light-detecting tissue of the eye. It affects approximately 1 in 15,000 live births, but it is the most common inherited childhood malignancy. Significant number of familial cancer syndromes; including familial retinoblastoma, are at mortal risk from a bone or soft tissue sarcoma, melanoma or brain tumor in the childhood. In these kind of patients, cysts, tumors or precancerous lesions can be seen in radiation area during the survive. Studies of childhood cancer patients with inherited cancer syndromes can provide insights into the interaction between radiation and genetic susceptibility to multiple cancers. Clinicians following these patients with inherited cancer syndromes should be aware of their increased susceptibility to second and third cancers that is enhanced by sensitivity to radiation. This case report describes treatment of OKCT in the 14 years old boy who has a OKTC in the mandible, operated and radiated because of the retinoblastoma in the childhood. Relationship between the oral cavity lesions and the retinoblastoma is also discussed in the light of the literature.

**Keywords:** keratocystic, treatment, radiotherapy

PP-212

**BIMAXILLARY SET BACK SURGERY: A CASE REPORT**

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Bimaxillary protrusion is often improved using combination of orthodontics and orthognatic surgery. Total maxillar set back osteotomy, segmental osteotomies or retraction of anterior teeth with dental extraction are the common techniques for treatment. The surgery planning is based on a reliable cephalometric and clinical analysis. According to the some authors middle- third push back procedures cause undesirable facial profile like premature aging. Therefore, mandibular advancement is often preferred even in cases of upper jaw prognathism. However in conditions that the set back of maxilla is necessary such as bimaxillary protrusion, TMSO is indicated. 34 age female patient with bimaxillary protrusion applied to our clinic with esthetic complaints. After radiographic and clinical examination; bimaxillary set back surgery was planned to correct asymmetric skeletal morphology and inclined occlusal cant. Total maxillar set back osteotomy, genioplasty and bilateral sagittal split osteotomy (BSSRO) were performed under general anesthesia. After a conventional Le Fort I osteotomy, lower ends of the pterygoid processes were resected and the maxilla was impacted 6 mm in right and 5 mm in left side. The mandible was set back in determined amounts with cephalometric analysis. Maxillomandibular fixation was applied 3 weeks postoperatively. After 7 months follow up time, preoperative and postoperative cephalometric radiographs and the photographs were compared. The relaps was minimal and caused no difference in profile. The results were satisfactory esthetically and functionally.

**Keywords:** maxillar set back osteotomy, bimaxillary protrusion, sagittal split ramus osteotomy



PP-213

**EPIPHORA AFTER LEFORT1 OSTEOTOMY: A RETROSPECTIVE STUDY**

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**BACKGROUND:** Nasolacrimal duct injury has been reported as a complication following trauma to the middle third of the facial skeleton, such as Lefort II, Lefort III, and naso-ethmoidal fractures. The aim of this study to determine prevalence of post-operative epiphora after Lefort I osteotomy.

**MATERIALS-METHOD:** All patients after undergoing Lefort I osteotomy over a 4 year period reviewed by the authors both clinically and radiographically.

**RESULTS:** 4 year period, A total of 89 Lefort I osteotomy was performed... Post-operative transient epiphora seen rate was %10.11 in all patients, 9 patients complained epiphora (Unilateral: %66.6, Bilateral %33,) immediately after surgery. Dacryocytographic images were taken. The complaints revealed mean 24,7 days. Conservative treatment including local massage was recommended. None of the patients required dacryocystorhinostomy and additional medication.

**DISCUSSION:** Epiphora is a complication of LeFort 1 osteotomies because of nasolacrimal duct obstruction(NLDO). Clinicians should be aware of the possibility of NLDO after Lefort I osteotomy

**Keywords:** LeFort I osteotomy, Epiphora, Nasolacrimal duct injury

PP-214

**HIGH-RESOLUTION MAGNETIC RESONANCE IMAGING: AS AN USEFUL IMAGING MODALITY OF IATROGENIC INFERIOR ALVEOLAR NERVE DAMAGES**

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The inferior alveolar nerve can be damaged during dental procedures, including administration of local anaesthetic, implant bed preparation and placement, root canal treatment, third molar surgery. Because of there are no 'purely' objective testing modalities available for evaluation of iatrogenic injury to the terminal branches of the trigeminal nerve, this makes the clinical diagnosis and management of these conditions fairly complicated for the oral and maxillofacial surgeon. This case report describes the high-resolution magnetic resonance imaging is a useful tool to diagnose, inferior alveolar nerve damage (IAN) etiology and its localization, during a clinical dilemma, which couldn't determine by conventional plain radiographs.

**Keywords:** High-Resolution MR, Inferior alveolar nerve, paresthesia



PP-215

**TREATMENT OF HUGE MAXILLARY CENTRAL GIANT LESION**Berfin Karataş, Altan Varol, Selçuk Başa

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The central giant cell lesion (CGCL) is a benign but potentially aggressive proliferation of fibroblasts and multinucleated giant cells that cause osteolysis and reactive bone formation. The World Health Organization has described its histologic features as an intraosseous lesion consisting of cellular fibrous tissue containing multiple foci of hemorrhage, aggregations of multinucleated giant cells, and, occasionally, trabeculae of woven bone. The conventional therapy of this uncommon tumors of the maxilla and mandible is surgical curettage, the aggressive forms could be more likely to recur in 13% to %49. (Adornato and Patcoff 2001). (Goldman, Marshall et al. 2005). Giant cell lesions (GCLs) are classified as nonaggressive, intermediate or aggressive based on clinical and radiographic criteria. Aggressive GCLs were defined as those exhibiting clinical characteristics of size greater than 5 cm, rapid growth, or recurrence after curettage.

This report presents both non-surgically partial reduction of a huge maxillary CGCL by using intralesional corticosteroid injections and its surgical management outcomes with 2 years follow-up.

**Keywords:** central giant cell lesion, intralesional steroid injection

PP-216

**REHABILITATION OF THE PATIENT WITH DOWN SYNDROME BY DENTAL IMPLANTS**Nuray Yılmaz Altıntaş<sup>1</sup>, Serdar Kılıç<sup>2</sup>, Subutay Han Altıntaş<sup>2</sup>, Yavuz Tolga Korkmaz<sup>1</sup>, Burak Cezairli<sup>1</sup><sup>1</sup>Karadeniz Technical University, Department of Oral and Maxillofacial Surgery, Trabzon, Turkey<sup>2</sup>Karadeniz Technical University, Department of Prothodontics, Trabzon, Turkey

**OBJECTIVES:** Down syndrome is autosomal disorder caused by trisomy of the 21st chromosome and is associated with physical and systemic problems. Several differences in the oral conditions among Down syndrome patients have been described in comparison with healthy population as well as other mentally retarded patients. Mental retardation and abnormalities in oral structures and poor quality of alveolar bone complicate the management of dental rehabilitation. There are few reports about oral rehabilitation with dental implants in patients with Down syndrome in the literature. This paper presents the use of dental implants in the oral rehabilitation of a 30-year-old woman with Down syndrome.

**CASE:** A patient with Down syndrome and moderate mental retardation was referred to the Karadeniz Technical University Dentistry Faculty Department of Oral and Maxillofacial Surgery. Intraoral and radiologic examination total edentulism and severe resorption of maxillary and mandibular alveolar bone was determined. Implant supported mandibular overdenture prosthesis and the total maxillary removable prosthesis was planned. Under local anesthesia, 4 dental implants were placed in mandible.

**RESULTS:** Four months later the implants were surgically uncovered and one implant was loosened but the prosthetic rehabilitation was completed on the three remaining implants.

**CONCLUSION:** Using dental implants in oral rehabilitation of Down syndrome patient is rarely reported in the literature. Treatment described here improved the patient's functional and esthetic status while significantly restoring oral health and self-esteem. However it is important to inform the patient caretakers about the oral hygiene and increased risk of losing implant.

**Keywords:** down syndrome, mental retardation, abnormalities



PP-217

**THE EFFECTIVENESS OF HYALURONIC ACID INJECTION FOR THE TREATMENT OF REDUCING DISC DISPLACEMENT**

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**PURPOSE:** Hyaluronic acid (HA) is a natural component of joint synovial fluid, and is also found in the extracellular matrix of connective tissue. The mechanical and metabolic properties of the molecule make it an ideal treatment for temporomandibular joint (TMJ). This study was designed to investigate the effect of intraarticular injection of HA for the treatment of symptoms associated with reducing disk displacement of the TMJ.

**MATERIAL-METHOD:** 9 patients with reducing disc displacement who were received injection of intraarticular sodium hyaluronate were included in this study. The chief complaint of the all patients was clicking sounds in the TMJ and it was examined by clinically and radiologically by MRI. A total of 1ml HA solution was injected into the upper TMJ compartment in every subject. Evaluation of the patients was done before the procedure, immediately after the procedure and on postoperative one week and one month. Maximal mouth opening, presence or absence of joint noise and pain, and tenderness of masticatory muscles were recorded at every appointment. The level of complaints about TMJ that affect the life quality was assessed by visual analog scale (VAS).

**RESULTS:** Clicking sounds were reduced in 5 patients while it was disappeared in 4 patients. Maximal mouth opening did not change after the injections. In one patient, the TMJ pain existed preoperatively however it was recovered at one week control.

**CONCLUSION:** Although these outcomes were the short-term results, the injection of HA into the TMJ in reducing disk displacement is safe and effective for especially clicking sound.

**Keywords:** treatment, reducing disc

PP-218

**BUCCAL BIFURCATION CYST: REPORT OF A RARE CASE**

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**PURPOSE:** The buccal bifurcation cyst, or "mandibular infected buccal cyst", is an uncommon inflammatory odontogenic cyst that occurs on the buccal aspects of the roots of the partially or newly erupted permanent molar. The aim of this study is to present a rare case of buccal bifurcation cyst in a young patient affecting the buccal aspect of lower first molars, discussing diagnosis, treatment, and radiographic findings of the case.

**CASE:** A 16 year-old patient referred to the Karadeniz Technical University Faculty of Dentistry Department of Oral and Maxillofacial Surgery Clinic for the well-defined unilocular radiolucent areas involving the bifurcation and root area of mandibular first molar. There was no history of any associated pain, paresthesia or expansion. The cyst was enucleated and the involved teeth were extracted. The histopathologic analyzes revealed the presence of non-keratinized, stratified squamous epithelium associated with the clinic and radiologic examination initiated the diagnosis of a buccal bifurcation cyst.

**CONCLUSION:** Although the buccal bifurcation cyst is not experienced commonly, the management of the lesion is simple enucleation with or without extraction of the influenced teeth. Because the paradental cyst can present variable clinical and radiographic signs, it is mandatory to correlate all clinical, radiographic, and histological data to obtain a definitive diagnosis.

**Keywords:** buccal, bifurcation, non-keratinized, cyst



**PP-219****BISPHOSPHONATE RELATED OSTEONECROSIS OF THE JAWS: A CASE REPORT**Mehmet Cemal Akay, Emine Adalı

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Bisphosphonates are widely used in the treatment of hypercalcemia associated with breast, prostate or lung cancer and the metastatic osteolytic lesions of multiple myeloma. One of the most significant side effects of bisphosphonates is the occurrence of osteonecrosis of the maxilla and the mandible. Oral bisphosphonates are used in the treatment of osteoporosis and Paget's disease, whereas injectable ones are used in the hypercalcemia of malignancy. Bisphosphonate-associated osteonecrosis is seen in 5-10% of cancer patients taking bisphosphonates. In this case report, clinical, diagnosis and treatment of bisphosphonate-associated osteonecrosis localized in left mandibular molar was presented in the light of related literature.

**Keywords:** bisphosphonates, mandibular osteonecrosis

**PP-220****CENTRAL MUCOEPIDERMOID CARCINOMA: A RARE CASE REPORT**Mehmet Cemal Akay, Birant Şimşek

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Mucoepidermoid carcinoma (MEC) is the most common malignant salivary gland tumor, accounts for 5% of all salivary gland neoplasms and only rarely arises in the jaws. Central mucoepidermoid carcinoma (CMEC) of the jaws accounts for only 2-3% of all mucoepidermoid carcinomas reported. Its etiology remains controversial. Several hypotheses have been proposed to explain pathogenesis of CMEC. One theory suggests that may arise from ectopic salivary tissue that was developmentally entrapped within jaws. The main symptoms are swelling and pain with trismus, parasthesia, and tooth mobility being noted occasionally. The clinical and radiographic findings of MEC occurring in the jaws are nonspecific; therefore it may be very difficult to distinguish between a simple odontogenic cyst and a malignant tumor. The clinical and radiographic differential diagnosis should include an odontogenic keratocyst, ameloblastoma, dentigerous cyst, ameloblastic fibroma, and metastatic lesions to the jaw. Treatment of CMEC includes wide local excision. Long-term follow up is necessary as some cases can develop late local recurrences and regional metastasis even after decades. In this study; a rare case of CMEC affecting the mandible was presented and its clinical, radiographic, and histological findings was discussed with a review of the literature.

**Keywords:** mandibular mucoepidermoid carcinoma

**PP-221****THE CALCIFYING EPITHELIAL ODONTOGENIC TUMOR (PINDBORG TUMOR): A RARE CASE REPORT**Mehmet Cemal Akay

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Calcifying epithelial odontogenic tumor (CEOT), described by oral pathologist Pindborg in 1955, is a rarely seen odontogenic tumor with epithelial origin. Of all the odontogenic tumors, CEOT accounts for 1% of the cases. Approximately 200 cases have been reported to date. Although the tumor is clearly of odontogenic origin, its histogenesis is uncertain. It usually involves the premolar-molar area of the mandible, there is no gender predilection and the peak incidence is found between the fourth and fifth decades of life. A painless, slow-growing swelling is the most common presenting sign. The differential diagnosis includes adenomatoid odontogenic tumor, calcifying odontogenic cyst, dentigerous cyst, ameloblastic fibro-odontoma and odontoma. Treatment of CEOT involves enucleation of smaller lesions and resection of large ones. In this case report; clinic, diagnosis and treatment of a case with CEOT localized in mandibular premolar-molar space was presented in the light of the related literature.

**Keywords:** mandibular calcifying epithelial odontogenic tumor, intraosseous



**PP-222**

**AGGRESSIVE JUVENILE PSAMMOMATOID OSSIFYING FIBROMA: A RARE CASE REPORT**

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Juvenile (aggressive) ossifying fibroma is a fibro-osseous lesion and is a subtype of ossifying fibroma. The term fibro-osseous lesion is a generic designation of a group of jaw disorders characterized by fibrous tissue containing mineralized structures that may resemble bone or cementum. This group includes developmental, reactive or dysplastic lesions as well as neoplasm. Because of clinical and histopathological differences juvenile ossifying fibroma is described in two groups: juvenile psammomatoid ossifying fibroma and juvenile trabecular ossifying fibroma. Psammomatoid juvenile ossifying fibroma is rare fibro-osseous neoplasm. Probability of malignancy makes this lesion worrying. The lesion is encapsulated and well demarcated from surrounding bone. Psammomatoid type ossifying fibroma is seen nose bones and paranasal sinuses in general. In this case report; clinic, diagnose and treatment of a juvenile psammomatoid ossifying fibroma case localized in maxillary molar space was presented in the light of related recent literature.

**Keywords:** juvenile, aggressive ossifying fibroma

**PP-223**

**INTRAOSSIOUS MYOEPITHELIOMA: A RARE CASE REPORT**

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Myoepithelioma is a rare tumor arising in the major and minor salivary glands, but mainly in the parotid gland. Myoepithelioma consists of myoepithelial cells characterized by various growth patterns such as solid, myxoid, and reticular types. Myoepithelioma is defined as a neoplasm. The definitive diagnosis of myoepithelioma is important because myoepithelioma is more aggressive than other salivary gland tumors, and occasionally transforms into malignant myoepithelioma. Extra-parotid myoepithelioma is extremely rare, but has occurred in the palate, submandibular gland, lip, cheek, oral cavity, nasopharynx, orbit, middle ear, external auditory canal, and maxillary sinus. In this case report; clinic, diagnose and treatment of a intraosseous epithelioma case localized in left mandibular space was presented in the light of related literatures.

**Keywords:** intraosseous, mandibular myoepithelioma

**PP-224**

**NEUROFIBROMA LOCALIZED AT MANDIBULAR PREMOLAR REGION: A CASE REPORT**

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Neurofibroma is a neurogenic tumor in the peripheral nerve tumor group. Since neural tissues are found throughout the body these tumors can occur in a variety of sites. They are rarely seen in the oral cavity. Surgery is the main therapeutic approach in this type of tumors. Serious bleeding is rarely seen during surgery because of vascular lesions and coagulopathy. In this rare case report, a 79 years old woman with neurofibroma localized at left side of premolar region of the mandible was presented.

**Keywords:** intraosseous, mandibular neurofibroma



PP-225

**MANDIBULAR ODONTOGENIC FIBROMAS: REPORT OF TWO CASES**

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2) Odontogenic fibroma (OF) is a benign odontogenic tumor of jaws. OF is more common in the mandible and is in the central or peripheral of jaws. It is most commonly found in young adults. Curettage, enucleation, local excision and partial resection may be used in treatment. In the study, two cases with odontogenic fibromas that one of located central of mandible and the other peripheral was presented.

**Keywords:** mandibular odontogenic fibroma

PP-226

**ODONTOGENIC KERATOCYST SEEN WITH IMPACTED THIRD MOLAR IN A PEDIATRIC PATIENT: A CASE REPORT**

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Odontogenic keratocyst (OKC) was categorized as a developmental, noninflammatory odontogenic cyst that arises from cell rests of dental lamina. Firstly it was determined by Mikulicz at 1986 and defined by Philipsen at 1956. OKCs have a high recurrence rate and develop more aggressively than any other jaw cysts. OKC 5-17% percent of all odontogenic jaw cysts. Generally adult patient and men are affected. Most commonly seen clinical signs are swelling and pain at the localization of the cyst. The classic treatment of this lesion is surgical marsupialization, enucleation and curettage being performed through an intraoral approach. In this case report, clinical, diagnose and treatment of odontogenic keratocyst seen with impacted third molar localized in left mandibular molar in a 13 -years-old pediatric boy patient was presented in the light of related literature.

**Keywords:** pediatric patients, odontogenic keratocyst, impacted molar

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**CENTRAL GIANT CELL GRANULOMAS IN THE PEDIATRIC PATIENTS: A CASE REPORT**

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The central giant cell granuloma is fairly common in the jaws and it is a nonneoplastic bone disease, probably reactive to some unknown stimulus. Usually, it occurs in patients 30 years of age or younger with painless swelling and an asymmetry in facial appearance. The highest rate of occurrence is the mandible, and most mandibular lesions occur anterior to the first molars. It is seen radiographically as a radiolucent lesion of the maxilla or mandible. Conventional treatment for the central giant cell granuloma has been local curettage and this has been associated with a high success rate and low recurrence rate. In this case report, clinical, diagnose and treatment of central giant cell granuloma localized in left mandibular molar in a pediatric patient was presented in the light of related literature.

**Keywords:** mandibular central giant cell granuloma, pediatric patients



PP-228

**CENTRAL CAVERNOUS TYPE HEMANGIOMA IN THE MANDIBULAR MOLAR REGION: A RARE CASE REPORT**

Es. Mehmet Cemal Akay<sup>1</sup>, Nilüfer Bölükbaşı<sup>2</sup>, Tayfun Özdemir<sup>2</sup>

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Hemangiomas are benign tumors of the vascular endothelium and mucous membranes. Despite their common occurrence during infantile period, hemangiomas of oral cavity especially in mucosa and gingiva are rarely seen. Hemangiomas have three phases which proliferation, stabilization, involution. These lesions are classified capillary, cavernous and mix. 50% of cavernous hemangiomas are involuted around 5 years, 70% of it around 7 years and the rest of it around 10-12 years. woman/man ratio is 3/1. In the case report, a 38-years-old man with central cavernous hemangioma in the left molar region of mandible was presented.

**Keywords:** mandibular, central, cavernous hemangioma

**pp-229** As a result, after 1 year of function marginal bone resorption was found in  $0,40 \pm 0,35$  mm in the

**UNILATERAL LEFORT I FRACTURE FOLLOWING EXPLOSION TRAUMA: A CASE REPORT**

Özgür Başlarlı, Hakan H. Tüz, Ali Rıza Kolbaş, Meriç Bilgiç

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Le Fort fractures are types of facial fractures involving the maxillary bone and surrounding structures usually in bilateral and horizontal, pyramidal or transverse way. Immediate examination and a true diagnosis are essential in maxillofacial trauma patients. Diagnosis of Le Fort fractures are made based on physical exam findings with confirmation by imaging methods. Plain radiographs and CT scans are used for monitoring the traumatized hard tissues for the patients with fracture anticipated. In this paper, diagnosis and treatment of a unilateral Le Fort 1 fracture following explosion trauma is presented and discussed with the literature.

PP-230

**CHERUBISM- A CASE REPORT**

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**PURPOSE:** the aim of this presentation is to describe the indications, surgical techniques, complications,

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Cherubism is a skeletal dysplasia characterized by bilateral symmetrical fibroosseous lesions in the maxilla and the mandible in the childhood. Cherubism has an autosomal dominant inheritance and it is very rare. Since it is a self-limiting disease, the lesions regress as the patient reaches adulthood. In this report, we present a case of cherubism. Our patient is an eight-year-old child whose family has a history of cherubism for four generations. The patient presented with swollen cheeks and an enlarged mandible. Intraorally, his mandibular arch was significantly expanded and firm on palpation. Mandibular teeth were displaced and some of them were mobile. During our follow-up period of three years, the patient lost some of his teeth due to root resorption and the tuberosity region of maxillae was also affected. Radiographically, multiple multilocular cystic lesions with displaced tooth germs and root resorptions were identified bilaterally in the mandibular body, rami and maxillary tuberosities. Blood serum analysis revealed slight increase in serum alkaline phosphatase level. A diagnosis of cherubism was made based on family history and clinical analysis. No biopsy was attempted. The affected relatives of the patient, whom we managed to contact, were all symptom-free in their adulthoods. Considering the self-limiting nature of the disease, no surgical attempt was made. To ensure a healthy dental arch with minimal tooth loss, conservative methods, such as splinting and space maintainers were used for treatment. The patient is still under regular observation.

**Keywords:** Cherubism, implants, atrophied maxilla, dental implants



P-231

**MULTIPLE RADICULAR CYCST IN NONSYNDROMIC YOUNG PATIENT**

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Radicular cysts are inflammatory jaw cysts seen at the apical part of teeth with infected and necrotic pulps. Radicular cyst treatment is mainly based on root canal treatment and if necessary surgical excision of the cyst lining with apicoectomy supported by retrograde filling. Most commonly seen clinical signs are swelling and pain at localization of the cyst. Multiple odontogenic cysts are sometimes seen with nevoid basal cell carcinoma syndrome. A 17 year-old nonsyndromic female patient has 3 radicular cysts in different areas of the maxilla at right and left posterior region and their treatments are presented. All three cysts cavities are enucleated. Pathologic examination is reported as radicular cyst for all three cysts.

P-232

**THE ORTHODONTIC TREATMENT IN PAEDIATRIC PATIENTS WITH UNILATERAL CONDYLAR FRACTURE (CASE REPORT)**

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**INTRODUCTION:** 42,9 % of total amount of paediatric mandibular fractures are the fractures of condylar process. Nowadays surgical treatment of these fractures with displacement is a difficult and actual problem especially in paediatric patients. There is a disadvantage of osteosynthesis in paediatric patients in some ages (under 6-8 years old) it's due to inflammation of bone, the destruction of periosteum potential. That's why we decided to give information about the patient with orthodontic treatment.

**OBJECTIVE:** A 7- years old patient presented with "Right condylar and left mental fracture". Patient was with open bite, malocclusion due to deviation of the mandible to the side of fracture. The patient was prepared for conservative orthodontic treatment. The radiographic analyses were taken for this patient. The treatment was taken for 6 weeks.

**RESULT:** During 6 weeks conservative orthodontic treatment was used. The patients general condition was good. The bite was orthognathic. After 6 weeks the anatomical structure of the fractured bone was made.

P-233

**COMPLETE SKELETAL CORRECTION OF A PATIENT WITH HEMI-MANDIBULAR HYPOPLASIA WITH BIMAXILLARY ORTHOGNATHIC SURGERY, COSTOCHONDRAL GRAFTING AND DENTAL IMPLANT REHABILITATION**

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One stage reconstruction for patients with skeletal malocclusion and limited mouth opening is possible with simultaneous orthognathic and TMJ surgery. A 25 years old patient with unilateral condylar hypoplasia and laterognathia applied with complaints of limited mouth opening, facial deformity and partial edentulism. Rheumatological examination did not reveal any underlying auto-immune disorder. Bimaxillary rotation, genioplasty and unilateral replacement of deficient condyle with an autogenous costochondral graft were performed. After skeletal correction, dental implant rehabilitation was completed.







## OP-21

## CONDYLAR AND RAMUS HEIGHT OF THE MANDIBLE IN TEMPOROMANDIBULAR DISORDERS: A PANORAMIC RADIOGRAPH STUDY

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The temporomandibular joint (TMJ) is a joint in the body that is composed of a hinge and a sliding compartment. It has a frequency of motion indicated up to 2000 times per day during talking, chewing, swallowing and snoring. In spite of the fact that a large number of people who are suffering from TMJ disorders, the TMJ field of research has not been deeply explored and it is one of the least studied joints in the human body. The most common TMJ disorders are trauma or fracture, advanced degenerative disease, tumors, developmental anomalies and ankylosis. Temporomandibular disorder (TMD) is an umbrella term, embracing conditions that involve the temporomandibular joint (TMJ) and/or masticatory muscles and associated structures. Panoramic imaging is a widespread diagnostic aid in dental practice. Despite the methodological limitations, some studies have shown the possibility of performing vertical linear and angular measurements with satisfactory accuracy, provided that the patient is well positioned and the film is correctly exposed. Although its usefulness in the assessment of the TMJ is controversial, some studies have concluded that panoramic radiographs are suited to find alterations in the condyle, others support the opposite position. The aim of the present study was to evaluate the correlation of TMJ disorders and ramus and condylar heights of the mandible using the panoramic radiographs.

**Keywords:** condyle, disorders, measurement, panoramic radiograph

## OP-22

## EFFICACY OF BOTULINUM TOXIN TYPE-A (BTX-A) IN PATIENTS WITH CHRONIC OROFACIAL PAIN

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**OBJECTIVES:** Chronic orofacial pain (COFP) can have profound functional and social implications. When this type of pain becomes unresponsive to treatment modalities, it in turn presents a clinical problem. Botulinum Toxin A (BTX-A) has been shown in previous studies to reduce pain in chronic pain conditions, such as chronic migraine and chronic tension-type headaches. This study compared the efficacy of BTX-A in patients with various COFP conditions.

**METHODS:** Sixteen patients undergoing treatment with BTX-A completed a questionnaire addressing their pain symptoms. These patients were suffering from headaches (n=5), migraines (n=3), Trigeminal neuralgia (n=2), occipital neuralgia (n=2), nummular headaches (n=1), atypical Trigeminal neuralgia (n=2), and atypical odontalgia (n=1). Pain levels pre- and post-BTX were examined through the use of a visual analogue scale of 0 (no pain) to 10 (worst pain imaginable). Interruptions to everyday functions due to their pain, side-effects and medication use were recorded. Administration of BTX-A varied amongst the different COFP sufferers, depending on the level of pain and the area in pain.

**RESULTS:** 62.5 % of patients indicated substantial benefit using BTX-A, whereby their functionality improved and medication use decreased. Mean pain levels at rest, at worst and on average significantly decreased following BTX-A treatment, from 6.8 to 3.8 (p=0.0099), 9.6 to 7.3 (p=0.0059) and 7.0 to 4.8 (p=0.0115), respectively. BTX-A appeared to be significantly more efficacious in neurovascular and tension-type COFP conditions. Minimal side-effects were experienced, with the most severe being facial palsy.

**CONCLUSION:** Our results provide promising data for the efficacy of BTX-A in a wide range of COFP conditions. This emerging treatment could be revolutionary to pain management in instances where other treatment modalities are failing.

**Keywords:** Botox, chronic orofacial pain, pain management



**RESULTS:** There were statistically significant differences between the control and experimental groups on the different days of postoperative period. Statistically, although the effect of triamcinolone acetonide on pain started on the third day postoperatively, effects of triamcinolone acetonide on trismus and pain was longer-lasting than other groups. Also, there was not a statistically significant difference between the effects of dexamethasone and triamcinolone acetonide regarding to postoperative complications.

**CONCLUSIONS:** It was concluded that the submucosal injection of dexamethasone or triamcinolone acetonide might be an effective treatment on postoperative discomfort occurred following the impacted lower third molar surgery, and the triamcinolone acetonide could be applied alternative to dexamethasone.

**Keywords:** dexamethasone, triamcinolone acetonide, third molar surgery

#### OP-15

### CLOSURE OF OROANTRAL FISTULAE USING AURICULAR CARTILAGE: A MODIFICATION OF THE TECHNIQUE BY RETROAURICULAR APPROACH

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Various surgical techniques have previously been described for the closure of oroantral fistulae. Today, besides some conventional techniques such as simple vestibular mucosal flaps, rotational pedicled palatal flaps or buccal flaps, some recently described alternative methods and approaches are also utilized. One of these newly described methods is the closure of oroantral fistulae using the auricular cartilage. Auricular cartilage is an ideal graft material for the closure of oroantral fistulae owing to its mechanical and biologic features. This research is the modification of the original auricular cartilage method to develop the technique.

**Keywords:** oroantral fistulae, auricular cartilage, graft, retroauricular approach

#### OP-16

### THE EFFECTS OF OPERATION TIME AND TOOTH POSITION ON PATIENT ANXIETY IN IMPACTED THIRD MOLAR SURGERY

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Dental treatment procedure causes psychologic stress among people which can lead to dental anxiety on patients. Dental anxiety is an obstacle for the patients to provide their dental health care. Impacted third molar surgery is a dental treatment procedure one of which causes dental anxiety among patients. The operation time of impacted third molar surgery and difficulty of surgery can affect the dental anxiety. In this study we evaluated the relationship between the operation time and difficulty of surgery and patient dental anxiety. 58 patients were treated with the impacted third molar surgery. Sociodemographic information form, Corah's dental anxiety scale, state trait anxiety inventory 2, scale were applied to the patients before the surgery whereas state trait anxiety inventory 1, was applied after the surgery. Moreover Corah's dental anxiety scale was applied again after the surgery. Besides, the difficulty of the tooth extraction is evaluated according to Pederson scale and the duration of operation time is recorded. The results of the scales were analysed statistically. As a result of this study, anxiety level before the surgery is higher than after the surgery anxiety level, although there is no relationship between the operation time and difficulty. Moreover, men were more relaxed than women after the surgery. Thus, patients can overcome or decrease the level of their dental anxiety with giving a chance for the first impacted third molar surgery.

**Keywords:** impacted third molar surgery, dental anxiety, operation duration, surgery difficulty



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Keywords: bone morphogenetic protein, histomorphometry, regeneration, rifamycin



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