2025 AÇBİD

18. ULUSLARARASI KONGRESİ
18th INTERNATIONAL CONGRESS

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ABSTRACT BOOK

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ORAL PRESENTATIONS

OP-001
Hemodynamic Responses to Tooth Extraction with Local Anesthesia in Patients with Hypertension

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Objective: This study aimed to evaluate hemodynamic changes and anxiety levels in controlled hypertensive patients undergoing tooth extraction under local anesthesia with %4 articaine hydrochloride at 1:100000. A secondary objective was to investigate the relationship between different types of antihypertensive agents and hemodynamic responses to local anesthesia.

Materials-Methods: The study consisted of a total of 60 patients: 30 hypertensive patients and 30 normotensive patients as a control group. Anxiety levels were assessed before local anesthesia using the Modified Dental Anxiety Scale (MDAS). Blood pressure, heart rate, and oxygen saturation were measured at three different time points: T0 (before the procedure), T1 (after local anesthetic latent period), and T2 (after tooth extraction).

Results: A significant relationship was found between gender and dental anxiety levels, with females exhibiting higher anxiety scores. However, anxiety levels did not significantly influence the hemodynamic parameters. The normotensive group showed significant systolic pressure and oxygen saturation changes across the three-time points. Females demonstrated a significant increase in pulse in T1, while no significant changes were observed in males. Extraction duration and anesthesia volume had no significant impact on hemodynamic parameters. Adrenergic receptor blockers were associated with increased systolic pressure in T1. Moreover, no hemodynamic complications requiring emergency intervention were observed during any of the tooth extraction procedures.

Conclusion: Tooth extraction procedures under local anesthesia with epinephrine (1:100,000) seem to be safely administered to controlled hypertensive patients. However, gender-related differences and specific antihypertensive medications should be considered when assessing potential hemodynamic responses.

Keywords: Local anesthesia, Modified Dental Anxiety Scale (MDAS)

OP-002
Bupivacaine Injection to Alleviate Pain After Orthognathic Surgery

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Objective: Pain management is of utmost importance in oral and maxillofacial surgeries. Local anesthetics are safe and effective but because of their relatively short duration time, patients need non-steroidal anti-inflammatory drugs (NSAIDs) and opioids depending on the type of the surgery. Adverse effects of using pain medications includes dependency, gastrointestinal and respiratory disturbances. The aim of this randomised controlled trial was to evaluate the effect of bupivacaine injection on postoperative pain and medication consumption after orthognathic surgeries.

Materials-Methods: Single dose infiltration of bupivacaine (Marcaine % 0.5) was administered at the surgical sites after suturing in the study group. Pain levels recorded using visual analog scale at 3, 6, 9, 12, 24, 36, 48 hours in both groups.

Results: Pain and discomfort are at the highest point on the first day in both study and control groups. Most of the mean values were in favor of bupivacaine group over control group and significant differences were recorded in the 3, 6, 9, 12 and 24 hours postoperatively.

Conclusion: Surgeons may benefit from additional bupivacaine injection at the end of the surgery for pain management.

Keywords: *Bupivacaine injection, Postoperative pain management, Orthognathic surgery*

OP-003
Functional Treatment of Pediatric Condylar Fractures: Case Series

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Objective: The aim of this study is to evaluate the effectiveness of functional treatment in pediatric condylar fractures through a case series of five patients.

Materials-Methods: Five pediatric patients (three females, two males) with condylar fractures were treated with functional therapy. Functional treatment included physiotherapy, soft diet, movement restriction and close monitoring of mandibular function. Clinical and radiographic assessments were performed at regular intervals to evaluate mandibular mobility, occlusion, and bone remodeling.

Results: The patients had a mean age of 10 years, and the follow-up period ranged from 6 to 18 months All patients demonstrated satisfactory functional recovery with improvements in mandibular movements and occlusal relationships. Radiographic evaluations showed progressive bone remodeling without significant complications. No patient required surgical intervention during the follow-up period. The treatment was well tolerated, and no major adverse effects were observed.

Conclusion: Functional treatment of pediatric condylar fractures appears to be an effective approach, promoting bone remodeling and functional recovery while avoiding the risks associated with surgical intervention. Early diagnosis, appropriate management, and close follow-up are essential for optimal outcomes in these cases.

Keywords: Condyle, fracture, functional

OP-004
Evaluation of The Effects of Resveratrol on Bone Healing After Tooth Extraction in Rats Treated with Zoledronic Acid

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Objective: The aim of this study is to evaluate the potential use of resveratrol on bone healing after tooth extraction in zoledronic acid-treated rats.

Materials-Methods: Seventy-two Wistar rats were separated into 4 groups of 18, according to the experimental protocol: no drugs (control group), zoledronic acid (ZA), resveratrol (R), zoledronic acid+resveratrol (ZA+R). The first and second molars of each rat were extracted and nine rats from each group were sacrificed on days 14 and 28. The extraction sites and blood samples were analyzed histologically, immunohistochemically and biochemically. The data were subjected to statistical analysis at a significance level of 0.05.

Results: There was more epithelization, connective tissue, new bone formation in R was significantly higher compared to ZA and ZA+R on day 28 ($p<0.05$). There was more connective tissue in control was significantly higher compared to ZA and ZA+R on days 14 and 28 ($p<0.05$). There was no statistically significant difference in inflammation levels between and within the groups. BMP4 levels in R were significantly higher compared to the other groups on days 14 and 28 ($p<0.05$). Serum CTX levels in ZA+R were significantly higher compared to control ($p=0.015$) and R ($p=0.001$) on day 14. Serum TRACP-5b levels in ZA+R group, were significantly higher compared to control and R on day 14 ($P <0.05$). TRACP-5b level of the control was significantly lower than ZA ($p=0.001$) and ZA+R groups ($p=0.001$).

Conclusion: Although resveratrol improved new bone formation in normal rats, no significant positive effects were detected in zoledronic acid-injected rats.

Keywords: Bone healing, resveratrol, zoledronic acid

OP-005
Diffuse Large B-Cell Lymphoma With Primary Manifestation In The Mandible: A Rare Case Report

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A 40-year-old female patient presenting mandibular expansion and radiographic findings suggestive of malignancy was diagnosed with diffuse large B-cell lymphoma (DLBCL) following clinical, radiological, and histopathological evaluation.

Materials-Method: An incisional biopsy was performed, followed by hematologic and advanced radiographic imaging (MRI, PET-CT) to assess systemic involvement.

Findings: Histopathological examination revealed high mitotic activity with CD45, CD20, and BCL6 positivity, and an 80% Ki67 proliferation index, confirming DLBCL with germinal center phenotype. PET-CT showed no lymphadenopathy or systemic involvement, indicating isolated mandibular presentation. The patient underwent R-CHOP chemotherapy, followed by radiotherapy (TART).

Conclusion: Lymphomas are the second most frequent head and neck malignancies after epidermoid carcinomas, but their incidence appears to be increasing. Mandibular localizations account for only 0.6% of cases and are often misdiagnosed as dental problems. The complete remission rate after chemotherapy ranges from 60 to 80% in one year. In this case, CBCT at the five-month follow-up confirmed full resolution of the mandibular lesion, except for devitalized tooth 34, with no recurrence.

Keywords: lymphoma, biopsy, malignancy

OP-006
An Evaluation of the Effectiveness of an AI-Assisted Diagnostic System in Clinical Practice

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Objective: The aim of this study was to evaluate the performance of an AI-supported clinical diagnosis system using expert ratings on a 1–5 Likert scale and to identify its strengths and weaknesses.

Materials-Methods: Four expert clinicians evaluated 171 cases across six dimensions: Differential Diagnosis List Coverage, Adaptation to Incomplete Data, Diagnostic Accuracy, Clinical Usability, Clinical Data Interpretation, and Radiological Findings Understanding. Descriptive statistics (mean, median, standard deviation, min-max) were computed for each item. The normality of the data was assessed using the Shapiro-Wilk test, reliability was determined via Cronbach's Alpha, and inter-item relationships were explored using Spearman correlation analysis. The results were visualized using boxplots, radar charts, and correlation heatmaps.

Results: Radiological Findings Understanding received the highest average score (4.36), while Diagnostic Accuracy had the lowest (3.65). The Shapiro-Wilk test indicated that all items deviated from a normal distribution ($p < 0.05$). A Cronbach's Alpha value of 0.8605 confirmed high internal consistency of the scale. Spearman correlation analysis revealed a high correlation (0.74) between Clinical Data Interpretation and Radiological Findings Understanding, with significant correlations also observed among Clinical Usability, Adaptation to Incomplete Data, and Diagnostic Accuracy.

Conclusion: The findings indicate that the AI-supported clinical diagnosis system demonstrates high performance overall, particularly in clinical data interpretation and understanding radiological findings. However, improvements in diagnostic accuracy are warranted. Future research should include a larger sample size, factor analysis, and investigation of differences among expert groups to further enhance system performance.

Keywords: *Artificial Intelligence-Assisted Diagnosis, Oral Pathology*

OP-007
Evaluation Of Knowledge, Awareness And Attitudes Of Mersin University Faculty Of Dentistry Students Regarding Teledentistry In The Field Of Oral And Maxillofacial Surgery:A Cross-Sectional Survey

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Objective: Teledentistry, a new field of dentistry, provides remote dental care services through different technologies. Teledentistry also uses digital imaging and the Internet to provide access to care for underserved patients in rural or remote areas. In order to integrate the practice and expertise of tele-dentistry into the future generation of dentists, it is essential to assess the knowledge, awareness, and attitudes of current dental students.

Materials-Methods: This survey study was applied to undergraduate students in the 3rd, 4th, and 5th grades. All students were sent an online survey via Google Forms. The survey included questions on socio-demographic information, knowledge, awareness, and attitudes towards the use of teledentistry. IBM SPSS Statistics 22 program was used for statistical analysis when evaluating the findings obtained in the study.

Results: The study was conducted with a total of 302 dentistry students, 145 (48%) female and 157 (52%) male, ranging in age from 20 to 39. The number of 3rd grade students was 125, 4th grade students were 101, and 5th grade students were 76. There was a statistically significant relationship between having heard of teledentistry and having used teledentistry before ($p:0.001$; $p<0.05$.

Conclusion: Most dental students were not familiar with teledentistry, its benefits, disadvantages, and how to use it. Since teledentistry is still a new technology, this topic should be included in dental education.

Keywords: survey, surgery, Tele-dentistry

OP-010
Retrospective Analysis of the Assessment of Demographic Characteristics of Single Member Dental Implant Patients

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Objective: In recent years, single-tooth implant applications have become a popular option for the treatment of tooth loss in dentistry.These procedures are especially preferred considering factors such as aesthetic concerns, functional requirements, and patient satisfaction.

Materials-Methods: In study, 2353 patients who applied to the Faculty of Dentistry at Dicle University for dental implants between 2020-2024 were included. The number of patients who received single-tooth implants, the demographic classification of these patients, the regions where the implants were placed, and the brand of implant used, were classified.

Results: In study, 450 out of 2353 patients (19.12%) received single-tooth implant treatment. The average age of these patients was 33.96, with an age range of 18-70. Among these patients, 268(59.55%) were women and 182(40.45%) were men.Among the regions where the implants were placed, 256(56.88%) were in the maxilla, and 194(43.12%) were in the mandible. In the maxilla, 62 implants were placed in the anterior teeth, 118 in the premolar teeth, and 76 in the molar teeth. In the mandible, 6 implants were placed in the anterior teeth, 14 in the premolar teeth, and 174 in the molar teeth. Of the 450 implants placed, 144Straumann, 130Bilim, 96Bioinfinity, 50NTA, and 30MİS brand implants.

Conclusion: The examination of the characteristics of clinical applications of dental implants, which have been used for the restoration of tooth loss for a long time, is highly valuable in guiding clinicians. The aim of this study is to evaluate the demographic and clinical data of patients who applied to our clinic for dental implant treatment.

Keywords: implant, Demographic Evaluation

OP-011
Decompression Method With A Pediatric Endotracheal Tube And Stainless Steel Wire: Case Series

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Objective: Decompression is a frequent treatment which gradually reduces cystic lesions while protecting anatomical structures. For this reason, various devices, such as feeding tubes and Penrose drains, have been used. This study presents an alternative technique using a pediatric endotracheal tube secured with a stainless steel wire to enhance patient compliance, maintain drainage, and strengthen stability.

Methods: Seven patients with odontogenic cysts were treated using this technique. A pediatric endotracheal tube was inserted to cystic cavity for drainage and secured with a stainless steel wire to an adjacent tooth. Patients were instructed to irrigate the tube regularly to avoid obstruction. Panoramic radiographs and CBCT scans were used to evaluate lesion size and healing. Clinical progress, side effects, and treatment effectiveness were evaluated during follow-up appointments.

Discussion: This technique simplifies irrigation, decreases tube displacement risk, and strengthens stability. Nevertheless, there are certain challenges to it, including patient discomfort, soft tissue irritation, and oral hygiene maintenance. This case series shows that this method reduces common complications associated with decompression devices and is a successful, minimally invasive option for large odontogenic cysts.

Conclusion: This technique offers a simple and efficient alternative for treating cystic lesions in the jaw. It increases treatment efficiency by promoting tube stability and maintaining constant drainage. More research with more patients and longer follow-ups are required for validation.

Keywords: decompression, odontogenic cysts, pediatric endotracheal tube

OP-012
Temporomandibular Disorders and Mallampati Score: A New Perspective

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Objective: This study aimed to investigate the relationship between temporomandibular disorders (TMD) and Mallampati score, considering their potential associations with upper airway obstruction and sleep disturbances.

Materials-Methods: Participants were divided into TMD and control groups based on the Research Diagnostic Criteria for Temporomandibular Disorders (RDC/TMD). Mallampati scores and neck circumference measurements were recorded. Sleep disturbances were assessed using the Sleep Condition Indicator (SCI), a screening tool for insomnia symptoms. Data were analyzed to examine correlations between TMD severity, Mallampati classification, and sleep-related parameters.

Results: TMD patients had significantly higher Mallampati scores compared to the control group, suggesting a narrower upper airway. SCI scores were lower in the TMD group, indicating more pronounced insomnia symptoms. A positive correlation was observed between Mallampati score and sleep disturbances, with individuals classified as Mallampati Class III or IV exhibiting more severe symptoms. Additionally, patients with increased Mallampati scores showed higher rates of bruxism and restricted airway space.

Conclusion: The results highlighted a potential link between TMD, upper airway anatomy, and sleep disturbances. Mallampati scoring may be useful in identifying TMD patients at risk for sleep-related breathing disorders. Future research should focus on integrating Mallampati classification into clinical assessment protocols and exploring its role in personalized treatment strategies for TMD.

Keywords: Insomnia, Mallampati Score, Temporomandibular Disorders

OP-013
Orthognathic Surgery with Iliac Bone Down Grafting for the Treatment of Low-Angle Bimaxillary Retrusion Patients

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Objective: Patients with low-angle facial morphology and bimaxillary retrusion often present with aesthetic and functional concerns, including inadequate facial projection and compromised airway space. This case report aims to describe the surgical management of such cases through maxillomandibular advancement combined with iliac bone down grafting to achieve vertical maxillary repositioning 1 year follow up.

Case: A 30-year-old healthy female patient was referred to our clinic due to low angle and bimaxillary insufficiency. Clinical and radiological examination revealed that the patient under general anesthesia was planned to undergo bimaxillary orthognathic surgery, maxillomandibular advancement, lowering of the maxilla with an iliac graft, and increasing the lower facial projection with genioplasty.

Conclusion: Orthognathic surgery with iliac bone down grafting is an effective approach for patients with low-angle and bimaxillary retrusion. This technique allows for controlled maxillary inferior repositioning while enhancing facial harmony and function. Long-term follow-up is essential to assess stability and further refine treatment protocols.

Keywords: Bimaxillary retrusion, iliac greft, ortoghnatic surgey

OP-014
Patient-Specific Titanium Mesh Technique: A Case Series

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Objective: The dental implant literature describes various techniques for bone augmentation in implant site development. Customized titanium mesh is widely used to maintain the contour and stability of the augmented site. This case series highlights the surgical aspects of bone augmentation with individualized titanium mesh and examines the dimensional changes in severely resorbed alveolar ridges.

Case: Three patients were included in this case series and monitored clinically and radiographically for at least eight months. All had horizontal and vertical bone resorption and underwent connective tissue grafting before augmentation. Customized titanium meshes were designed using computer-assisted technology and fixed with three miniscrews under general anesthesia. The defects were filled with autogenous and xenograft particles. Titanium meshes were covered with a collagen membrane, and closed primarily. CBCT scans were taken before both surgeries. After six months, sufficient volumetric bone gain allowed for implant placement in the planned prosthetic positions. No implant failures, complications, or crestal bone resorption were observed during the follow-up period.

Conclusion: It can be concluded that the use of customized titanium mesh is a predictable and effective technique for bone regeneration in advanced, three-dimensional defects. This approach provides structural stability, maintains the desired contour of the augmented site, and ensures the protection of grafted materials, facilitating optimal bone regeneration. Furthermore, its application in severely resorbed alveolar ridges demonstrates its reliability in achieving significant volumetric bone gain, making it a valuable option for implant site development in complex cases.

Keywords: Custom- made titanium mesh, bone grafts, alveol reconstruction

OP-015
Inferior Alveolar Nerve Lateralization Technique In the Mandible With Insufficient Bone Height: Report of Two Cases

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Objective: Inferior alveolar nerve lateralization(IANL) is a surgical technique used to gain additional vertical bone height in the posterior mandible for implant placement when conventional augmentation procedures are not feasible or predictable. This technique involves repositioning the inferior alveolar nerve laterally to create space for dental implant placement while preserving nerve function. IANL allows for immediate implant placement without waiting for bone augmentation procedures to heal, provides a stable bone foundation for implant-supported prostheses and avoids the need for extensive grafting in severely resorbed mandibles.

Case: One female and one male patient presented to our clinic for dental implant placement. Intraoral and radiographic examinations revealed insufficient bone height in the mandible for implant placement. Under general anesthesia, a full-thickness mucoperiosteal flap was elevated, and the mental foramen was dissected. Cortical bone cuts were made along the projection of the inferior alveolar nerve using piezosurgery. The bone window was lifted with the aid of an osteotome, and the exposed nerve was carefully lateralized. The implants were then placed. A new exit profile was created for the transposed mental nerve. The obtained autogenous graft was mixed with PRF and positioned between the nerve and the implants. The surgical site was closed primarily, and no postoperative complications were observed.

Conclusion: IAN lateralization is a valuable technique for implant placement in severely atrophic mandibles when bone height is inadequate. Although it carries a risk of neurosensory complications, careful surgical planning and execution can lead to successful outcomes with functional and aesthetic benefits.

Keywords: IAN, Lateralization, Transposition

OP-016
Alveolar Ridge Split Technique On Maxilla: Report Of Four Cases

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Objective: Dental implants are one of the primary treatment options for tooth loss; however, insufficient alveolar ridge height and width can limit implant placement. In such cases, bone augmentation techniques, including autogenous bone block grafting, guided bone regeneration, alveolar ridge splitting, and alveolar distraction, can facilitate implant placement. Alveolar ridge splitting can be performed using various surgical instruments and specialized toolsets, such as piezosurgery, separation tools, and ridge split kits specifically designed for this technique. The objective of this report is to present four cases of insufficient alveolar bone width in the maxilla that were successfully treated using alveolar ridge splitting technique.

Case: Two male and two female patients presented to our clinic for dental implant treatment. Clinical and radiological evaluations revealed inadequate maxillary posterior bone width, requiring bone augmentation before implant placement. Under local anesthesia, a full-thickness mucoperiosteal flap was elevated, and a mesiodistal osteotomy was performed at the midpoint of the alveolar ridge using piezosurgery. The bone was expanded buccopalatally with a chisel, and implants were placed. Xenogenic bone grafting was applied to the required areas, and the surgical site was closed primarily.

Conclusion: Although the ridge split technique is less common in the mandible, it is a reliable method for maxillary bone augmentation. With thorough clinical and radiological assessments and an experienced surgeon, this technique can be safely and effectively applied in cases of insufficient alveolar width.

Keywords: Alveolar ridge splitting, augmentation, dental implants

OP-017
Implant-supported Rehabilitation of Atrophic Edentulous Maxilla With Pterygoid Implants: A Case Report

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Objective: The most significant challenge in dental implantology is the reconstruction of the severely resorbed maxilla, particularly in patients with prolonged edentulous or a history of multiple unsuccessful attempts at dental implant placement and full-arch implant rehabilitation. Pterygoid implants have emerged as a reliable and effective alternative for the rehabilitation of the posterior atrophic maxilla.

Case: A 52-year-old female patient reported to our clinic seeking fixed prosthetic rehabilitation for the maxilla and mandible. Clinical examination revealed a completely edentulous mandible with a resorbed ridge and an edentulous maxilla exhibiting sagittal and transverse hypoplasia. Radiographic evaluation using an CBCT revealed an edentulous maxilla with moderate vertical bone resorption in the anterior region and severe vertical resorption in the premolar and molar regions. Similarly, the mandible exhibited moderate horizontal bone resorption, particularly in the molar regions. In the maxilla, a treatment plan was devised and executed involving the placement of six implants, including two pterygoid implants. For the mandible, four implants were strategically placed using the All-on-Four technique.

Conclusion: The use of novel pterygoid implants to support a fixed prosthesis has been shown to be a reliable and predictable alternative to distal cantilever prostheses or sinus-lifting procedures. This technique demonstrates a high success rate and offers the advantage of a shortened treatment period.

Keywords: pterygoid implant, atrophic maxilla

OP-018
Removal of Displaced Dental Implant in the Maxillary Sinus: A Rare Case Report

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Objective: Dental implant displacement into the maxillary sinus is viewed as a rare complication. The implant may become dislodged and enter the sinus during surgery due to insufficient primary stability of the implant or bone resorption around the implant in the following months after surgery. Foreign bodies in the maxillary sinus should be removed because they can cause sinusitis by interrupting mucociliary clearance or causing a tissue reaction. We present a rare case of displaced dental implant in the maxillary sinus causing sinusitis and removed by the Caldwell-Luc procedure.

Case: A 67-year-old man referred to our clinic with a history of 5 dental implantation to his edentulous maxilla 3 months ago. When he went to his dentist for further procedures, a panoramic x-ray was taken on January 28, 2025, which showed the presence of an implant in his left maxillary sinus. The patient was then referred to us and new panoramic X ray dated February 4, 2025 determined that the implant was displaced within the sinus. A Computed tomography (CT) examination then determined the position of the dental implant.

Result: Access to the implant, its removal, and cleaning of the sinus from sinusitis were performed with the Caldwell-Luc operation under general anesthesia. On the 7th and 14th day follow-ups, it was observed that the patient recovered uneventfully.

Conclusion: Caldwell-Luc operation is an effective method to remove displaced dental implants and restore sinus health. Computed tomography can be used to localize a foreign body, but it may migrate prior to operation.

Keywords: Caldwell-Luc, Dental implant, Maxillary sinus

OP-019
Dental Treatments Under General Anesthesia in a Patient With Phenylketonuria: A Case Report and a Literature Review

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Objective:Due to the absence of the phenylalanine hydroxylase enzyme, individuals with phenylketonuria (PKU), a hereditary amino acid metabolism disorder, have a significantly higher prevalence in our country compared to global rates. These individuals often lack the necessary awareness to maintain proper oral hygiene, making them highly prone to dental issues and in need of dental treatment. The limited number of publications addressing anesthesia management in PKU patients highlights the need to report general anesthesia practices for dental procedures in such cases. This case report aims to present the oral rehabilitation of a PKU-diagnosed patient with clinical features such as maxillary hypoplasia and mental retardation under general anesthesia while also emphasizing the importance of increasing awareness in such cases.

Case:A 23-year-old male patient diagnosed with phenylketonuria, with no family history of the condition, was referred to our clinic for dental treatment. Due to his non-cooperative behavior, general anesthesia was deemed appropriate. The consulting endocrinologist and metabolic specialist recommended caution with intravenous solutions containing phenylalanine, aspartame-containing products, propofol, rocuronium, succinylcholine, and epinephrine-containing local anesthetics. During the intraoperative period, 60 mg of mepivacaine hydrochloride was administered, and the 45-minute surgery was completed without complications.

Conclusion:In PKU patients, obtaining a detailed medical history and consulting with endocrinology and metabolism specialists is of great importance. The composition of all solutions and medications used in these patients should be carefully considered. Furthermore, it should be noted that preoperative fasting and surgical stress can trigger catabolism.

Keywords: Dental Treatments, General Anesthesia, Phenylketonuria

OP-020
Staged Bone Regeneration in the Anterior Maxilla: A Case Report on Iliac Crest Grafting and Customized Titanium Mesh for Implant Rehabilitation

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Objective: Rehabilitation of severe maxillary bone defects presents a significant challenge in implant dentistry. This case report aims to describe a staged approach involving autogenous and xenograft augmentation, iliac crest bone grafting, and customized titanium mesh for bone regeneration prior to implant placement.

Case: A 20-year-old male patient presented to the clinic on February 15, 2022, with a history of a cyst removal surgery in the anterior maxilla (teeth 11–13) performed one year prior. Following orthodontic treatment, initial bone augmentation with autogenous and xenograft materials was performed on August. However, during a second-stage evaluation after 7 months, inadequate bone volume was observed, preventing implant placement. To address this deficiency, an autogenous iliac crest graft was harvested and stabilized with a custom-designed titanium mesh. After 8 months, CBCT imaging confirmed successful bone regeneration, allowing for the removal of the titanium mesh and the placement of two Straumann implants. The patient subsequently underwent prosthetic rehabilitation with satisfactory functional and aesthetic outcomes.

Conclusion: This case highlights the importance of a staged regenerative approach in managing severe post-cystectomy bone defects. The combination of iliac crest bone grafting and patient-specific titanium mesh provided sufficient bone volume for successful implant placement. Long-term follow-up is essential to monitor implant stability and patient satisfaction.

Keywords: alveolar reconstruction, bone grafts, custom-made titanium mesh

OP-021
Surgical Treatment of Tongue Lacerations and Macroglossia

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Introduction: The tongue plays a crucial role in communication, taste, chewing, and swallowing. It consists of intrinsic and extrinsic muscles, is highly vascularized, and is innervated by multiple nerves. Injuries and anomalies of the tongue significantly affect quality of life.

Case: This study presents the surgical management of tongue lacerations and macroglossia in six patients admitted to our clinic. Four patients had tongue lacerations, while two had macroglossia. Due to the tongue's rich blood supply, strong musculature, and complex anatomy, the surgeries were performed under general anesthesia except for one. The lacerations were too extensive for secondary healing and were primarily closed with sutures to ensure proper recovery.

One macroglossia case required treatment before orthognathic surgery, as an enlarged tongue could cause airway obstruction, intraoperative difficulties, and postoperative feeding and breathing issues. The second macroglossia case involved tongue reduction followed by anterior repositioning. This was achieved through mandibular advancement via osteotomy, which moved the genial tubercle region forward, facilitating proper tongue positioning.

Conclusion: The surgical treatment of tongue lacerations and macroglossia requires careful planning due to the tongue's vital functions. Primary suturing ensured optimal healing in laceration cases. In macroglossia cases, tongue reduction facilitated smoother orthognathic surgery and improved airway patency. Mandibular advancement further enhanced tongue positioning, preventing airway narrowing. These procedures effectively restored function and improved patients' quality of life.

Keywords: Macroglossia, Tongue Lacerations

OP-022
Surgical Extraction Of Kissing Molars Class II

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Objective: The term "kissing molars" was first described by Von Hoof in 1973, refer to impacted molars included in the same quadrant with contacting occlusal surface. In 2012, Gluses Et Al made a radiographical classification of kissing molars according to this; Impaction of lower first and second molars are class I, impaction of lower second and third molars are class II and impaction of lower third molar and supernumerary fourth molar are class III.

Case: 41-year-old Cypriot female patient presented to the Department of Oral and Maxillofacial Surgery, International Final University, TRNC with lymph node swelling complain. She was directed from ENT specialist.

Panoramic radiography examination revealed as kissing molar classification "class II" in mandibular right posterior with radiolucency around it. Proximity to mandibular canal and positions of the teeth were detected by Cone Beam Computed Tomography (CBCT).

Conclusion: In CBCT detection, there was very close relationship between mandibular canal and cyst. Moreover, it was recognized that lingual wall of mandible was resorbed. So that, it was preferred to perform the operation under general anesthesia to prevent possible nerve damage and in case the operation would be prolong.

In this operation second and third right molars were extracted, cystic tissues were cleaned carefully. As a result of histopathological evaluation, the cyst was compatible with dentigerous cyst.

Follow up of first, third and seventh days after operation was shown well predictable healing.

Keywords: Impacted teeth, Kissing molars, Unilateral

OP-023
Extraoral and Intraoral Autogenous Grafts in Bone Augmentation for Dental Implant Placement in Atrophic Jaws: 5 case reports

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Objective: Adequate bone volume is required for the placement of dental implants to replace missing teeth. In cases of advanced jaw bone atrophy, augmentation procedures may be necessary prior to implant treatment. Autogenous bone grafts are the gold standard for reconstructing maxillofacial defects. The purpose of hard tissue augmentation is to provide predictable bone support to ensure the biomechanical stability of implants and to support soft tissue in order to optimize functional and aesthetic outcomes. Common autogenous graft sources include iliac, costochondral, calvarial, proximal tibia, vascularized fibula grafts, while intraoral symphysis and ramus grafts are also frequently used. This presentation discusses augmentation of atrophic maxillary and mandibular ridges using extraoral and intraoral grafts.

Case: Five patients who presented to our clinic for prosthetic rehabilitation were found to have advanced bone resorption on intraoral and radiographic examination, with insufficient bone volume for rehabilitation with fixed implant-supported prostheses. Autogenous bone grafts were planned for 1 patient from the anterior iliac crest under general anesthesia, 3 patients from the symphysis region under local anesthesia, 1 patient from the ramus region under local anesthesia.The harvested autogenous grafts were applied to the areas of bone deficiency in the jaws. Clinical and radiographic follow-up was performed for all patients.

Conclusion: Successful augmentation was achieved in all patients without any complications. The patients are still being monitored. Factors such as bone type, the width of the area to be reconstructed, patient compliance, available bone volume, the surgeon's experience should be considered when selecting the graft harvesting site.

Keywords: Autogenous Bone Grafts, Augmentation, Dental Implant

OP-024
Management of Oroantral Communication and Surgical Treatment Options - Case Series

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Objective: In our daily clinical practice, the oral cavity and the maxillary sinus may come into direct communication following tooth extractions, surgeries, or due to various pathologies. In such cases, this connection must be closed to ensure patient comfort and to manage pain and infection.

Case: Three patients were referred to our clinic due to oroantral communication caused by various factors. Initially, the buccal flap advancement technique was considered for closure. However, due to the large defect and thin gingival phenotype, three different methods were used to close the communication.

In the first method, blunt dissection was used to access the buccal fat pad, which was directed to cover the defect and sutured to the palatal mucosa. Horizontal incisions were made in the buccal periosteum for tension-free closure, and the flap was sutured to the palatal gingiva.

In the second method, the palatal tissue was carefully elevated without damaging the palatal artery and advanced to cover the defect, then sutured to the buccal mucosa.

In the third method, a flap including the buccal mucosa and buccinator muscle was raised to close the defect.

Clinical healing was observed in all patients during follow-up visits.

Conclusion: Palatal rotation, buccal fat pad, and musculomucosal buccal flaps are effective options for closing oroantral communication. The palatal rotation and musculomucosal buccal flaps offer long-term stability due to strong vascularization, while the buccal fat pad flap is notable for its flexibility and minimal donor site morbidity.

OP-025

Evaluation of Diagnosis and Treatment Methods in Maxillofacial Fractures

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Objective: Jaw and facial fractures are among the most serious and attention-grabbing situations in oral, dental and maxillofacial surgery clinics. Patients with this history and clinical and radiographic diagnosis should be evaluated carefully and their treatment processes should be carried out carefully. Otherwise, it is inevitable that the patient will encounter serious occlusion, phonation and aesthetic problems. Etiological reasons for jaw and facial fractures are usually traumas. There are two basic approaches to the treatment of maxillofacial fractures. These can be listed as closed reduction-intermaxillary fixation and open reduction-miniscrew plate fixation. In this study, diagnosis, treatment and postoperative complication management of patients who applied to our clinic with fractures in the jaw and facial bones were evaluated.

Materials-Methods: In this study, patients who applied to the Oral and Maxillofacial Surgery clinic with complaints of fractures in the maxillofacial region due to various etiological reasons and whose treatments were completed between 2014 and 2024 were evaluated retrospectively. The records of the patients were examined in terms of age, gender, fracture etiology, fracture localization and treatment method.

Results: Mandibular fractures were the most commonly fractured bone in our study, consistent with the literature. In addition, despite the different opinions in the literature, we believe that open reduction and internal fixation is the most appropriate treatment method to return the patient to social life as soon as possible.

Conclusion: Treatment regimens for maxillofacial fractures may vary depending on the fracture type, location, patient, and surgeon experience and preferences.

Keywords: Maxillofacial fractures, mini plate – screw fixation, intermaxillary fixation

OP-026
Detection of Mental Foramen in Panoramic Radiography with Artificial Intelligence Based System

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Objective: Accurate identification of the mental foramen's location and a comprehensive understanding of its anatomical variations play a crucial role in enhancing treatment safety and success. This study aims to develop an artificial intelligence-based system for the precise and automated detection of the mental foramen in panoramic dental images using a region-based approach.

Materials-Methods: Mental foramens were evaluated in 100 panoramic images obtained from those who were admitted to the Mersin University Faculty of Dentistry for diagnosis and treatment. In this study, an attention-based U-Net model is proposed for the automated detection of the mental foramen in panoramic radiographs. The model employs a ResNet50 backbone in the encoder to extract robust low- and high-level features, while a tailored decoder built with standard convolutional blocks restores image details to produce clear segmentation masks.

Results: This design enables the network to combine detailed information with overall context, ensuring accurate delineation of the mental foramen. Experimental evaluations reveal that the proposed model achieves a mean Intersection over Union (IoU) of approximately 0.79, along with high precision and recall in boundary definition. These results demonstrate the potential of the attention-based U-Net approach as a reliable and effective tool for clinical applications, with the capacity to reduce complications during surgical interventions.

Conclusion: This study highlights the potential of automated detection systems to improve clinical outcomes and facilitate diagnostic processes. The findings and methodologies presented in this study may provide a solid foundation for future research in this area.

Keywords: Artificial Intelligence, Mental Foramen

OP-027
Evaluation of the Accessory Mental Foramen in Cone-Beam Computed Tomography Images Using Artificial Intelligence-Based Systems

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Objective: The mental foramen is usually a single opening, though multiple foramina may occur in some individuals, known as accessory mental foramina (AMF). Accurate AMF identification improves anatomical understanding and prevents complications. This study developed an AI-based system for automatic AMF localization, providing a decision support mechanism for clinicians.

Materials-Methods: The EfficientNet-based Attention-UNet model in this study was developed for AMF segmentation in CBCT images. In the encoder section of the model, the EfficientNet architecture was utilized to extract high-level features. Attention mechanisms were integrated into the connections between the encoder and decoder to minimize information loss and enhance segmentation accuracy. In the decoder section, a symmetric U-Net architecture was utilized to generate detailed segmentation masks. Within the scope of this study, CBCT images from a total of 800 patients were analyzed, and AMF was identified in 30 of them A total of 163 labeled images from these patients were used for model training, with data augmentation techniques applied to enhance generalization.

Results: The developed EfficientNet-based Attention-UNet model achieved high accuracy in AMF segmentation on CBCT images. The segmentation masks generated by the model demonstrated strong alignment with expert annotations. This AI-based method provides faster, more objective, and consistent detection compared to manual evaluation.

Conclusion: The accurate positioning of the AMF is crucial for ensuring adequate anesthesia during surgical procedures and implant placement, as well as for preventing postoperative complications. AI-assisted approaches enhance the reliability of diagnostic and treatment processes by enabling the precise identification of anatomical structures.

Keywords: Accessory Mental Foramen (AMF), Artificial Intelligence

OP-028
Laser-Based Photobiomodulation (PBM) for Postoperative Complications in Maxillofacial Surgery: A Case Series and Comprehensive Literature Review

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Objective: In maxillofacial surgeries, clinicians deal with so many postoperative complications such as infection, inflamation, pain and delayed wound healing. PBM, or diode laser-based photobiomodulation, has become a popular noninvasive therapy option to accelerate the healing. Its therapeutic efficacy and clinical uses are assessed in this study.

Materials-Methods: Along with the systematic review of studies on photobiomodulation in the last decade, PBM was applied to a total of 20 patients who were treated in the Department of Oral and Maxillofacial Surgery and experienced complications. To evaluate PBM's impact on tissue regeneration, pain alleviation, and complication management, clinical data were compared with earlier research. In order to optimize protocols, variations in laser parameters, such as wavelength, power output, and treatment duration, were examined.

Results: In addition to accelerating wound healing and lowering complications such as trismus, osteonecrosis, and nerve damage, PBM improved osseointegration considerably. A system that includes higher ATP production, fibroblast proliferation, mitochondrial stimulation, and more effective microcirculation promotes quicker healing and reduces pain after surgery. The effectiveness of PBM was demonstrated by a 95% reduction in postoperative complications. However, standardized treatment regimens are still missing, which is challenging.

Conclusion: Diode laser-based photobiomodulation, used as a minimally invasive method, holds promise for improving postoperative outcomes and patient comfort in maxillofacial surgery. To support clinical application, an example PBM protocol table was developed as a practical reference for clinicians. Future research should focus on optimizing treatment parameters and exploring its integration with regenerative therapies.

Keywords: photobiomodulation, postoperative healing, tissue regeneration

OP-030
Artificial Intelligence-Based Detection of Medication-Related Osteonecrosis of the Jaw (MRONJ) in CBCT Images

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Objective: Medication-related osteonecrosis of the jaw (MRONJ) is a severe complication observed in individuals receiving antiresorptive drugs. Cone-beam computed tomography (CBCT) is widely utilized for the diagnosis of MRONJ; however, its interpretation is time-consuming and relies on subjective assessment. This study aims to develop an artificial intelligence-based system for automated detection of MRONJ using CBCT with a region-based approach.

Materials-Methods: In this retrospective study, CBCT images of 100 patients with a diagnosed with MRONJ were analysed at Mersin University Faculty of Dentistry. Osteonecrotic regions were analysed using an attention-based U-Net model for MRONJ detection in CBCT scans. The model employs a ResNet-50 backbone in the encoder to extract robust features, while a tailored decoder built with standard convolutional blocks restores image details to generate precise segmentation masks

Results: In this study, a ResNet-50-based U-Net model was developed for MRONJ segmentation in oral images. The ResNet-50 backbone enhances feature extraction, while the U-Net architecture ensures precise lesion localization. The proposed model was trained and evaluated on a dataset of annotated MRONJ images, achieving high segmentation accuracy. Experimental results demonstrate superior performance compared to conventional U-Net models, with improved precision and recall. The findings suggest that the proposed approach can assist clinicians in the early detection and assessment of MRONJ, contributing to more effective diagnosis and treatment planning.

Conclusion: This study highlights the potential of automated detection systems to improve clinical outcomes and facilitate diagnostic processes. The findings and methodologies presented may provide a solid foundation for future research in this area.

Keywords: Artificial Intelligence, Mronj

OP-031
Investigation of the Zygomaticofacial Foramen Using Medical Computed Tomography and Cone-Beam Computed Tomography

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Objective: This study aims to examine the zygomaticofacial foramen using cone-beam computed tomography (CBCT) and medical computed tomography (CT) imaging and to compare the obtained results with each other as well as with previous cadaveric skull studies. By doing so, the study seeks to evaluate which type of tomography provides more reliable and accurate results for surgical procedures involving the zygomatic region.

Materials-Methods: After obtaining approval from the Ethics Committee of Ondokuz Mayıs University, the images of patients who underwent cranial computed tomography (CT) and cone-beam computed tomography (CBCT) for various reasons at the university's Faculty of Dentistry and Faculty of Medicine were analyzed. The age and sex data of the patients, as well as the number of zygomaticofacial foramina in the right and left zygomatic bones, were recorded. The obtained data were then compared with previously reported cadaveric skull studies in the literature.

Results: Statistical analysis is ongoing.

Conclusion: The zygomaticofacial foramen is an anatomically significant landmark located within the field of various surgical procedures. To prevent postoperative numbness in the cheek region, it is essential for surgeons to have a thorough understanding of this anatomical structure.

Keywords: zygomaticofacial foramen, computed tomography, CBCT

OP-032
Is The Counterclockwise Movement Of The Maxillomandibular Complex Stable?

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Objective: Severe maxillofacial deformities and asymmetries with occlusal changes are among the main conditions that need to be corrected with orthognathic surgery, which is a comprehensive orthodontic and maxillofacial surgical procedure. The aim of this combined treatment with the combined application of orthodontics and orthognathic surgery is to provide the patient with the most appropriate functional and aesthetic results. Depending on the aesthetic requirements, the maxillomandibular complex can be rotated clockwise or counterclockwise. Our aim in this case report is to evaluate the skeletal stability in the long-term postoperative follow-up.

Case: In this case series, 20 cases who applied to Süleyman Demirel University Oral and Maxillofacial Surgery Clinic with complaints of maxillofacial deformity and facial asymmetry and where counterclockwise rotation of the maxillomandibular complex was performed with orthognathic surgery will be presented. Preoperative, postoperative and long-term follow-up records of the cases were analyzed.

Conclusion: The risk of recurrence depends on several factors, including the type of dysgnathia, the operative procedure, the extent and direction of operative relocation, the means of fixation, the patient's age and possible growth potential, the incidence of remodeling and resorption, the incidence of orthodontic relapse, and the presence of an unsafe occlusion.

Keywords: Stability, Orthognathic surgery

OP-033
Treatment Effects in Patients Presenting Class II Malocclusion Treated with Maxillary Distalization Using Infra-Zygomatic Crest Miniscrews

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Objective: Temporary anchorage devices, which can be placed in the infra-zygomatic crest region of the maxilla, can be used for distalization of the maxillary dental arch without creating problems such as preventing tooth movement or damaging the roots, as they are away from the roots. The objective of this study was to investigate the treatment effects obtained in adolescent patients with Class II malocclusion using the infra-zygomatic crest miniscrews (IZCM).

Materials-Methods: This study was conducted prospectively on 14 patients (mean age: 14.3 years) presenting Class II malocclusion and increased overjet. Total arch distalization was performed using IZCM with a 5mm crimpable hook was positioned on the archwire between lateral and canine teeth. An average of 350 g force was applied by a closed coil placed between the IZCM and the crimpable hook. The measurements were performed on lateral cephalometric X-rays obtained before and at the end of the distalization.

Results: A 2mm maxillary distalization was measured at the point A level ($p<0.05$). The maxillomandibular relationship was corrected due to ANB-angle and Wits-appraisal ($p<0.05$). The central incisors and first molars showed distalizations of 4.1mm and 4.3mm, respectively ($p<0.05$). Reductions were observed in both overjet and overbite, while prominent upper lips retracted and mentolabial angle became shallower ($p<0.05$).

Conclusion: Total arch distalization with IZCM enabled the achievement of skeletal and dental correction in Class II malocclusions with improvement in soft tissue profile balance. This approach could eliminate the requirement of a potential orthognathic surgical correction in adolescent patients presenting Class II malocclusion.

Keywords: infra-zygomatic crest, maxillary distalization, temporary anchorage devices

OP-034
Evaluation of Changes in Maxillary Shape and Position After Surgically Assisted Rapid Maxillary Expansion

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Objective: Surgically assisted rapid palatal expansion (SARPE) is an effective treatment for transverse maxillary deficiencies. However, skeletal and dental changes may vary based on preoperative maxillary arch shape. This study investigated the relationship between maxillary form (V, U, square-shaped) and premaxillary volumetric expansion, skeletal widening, and dental tipping using CBCT imaging.

Materials-Methods: A total of 30 SARPE patients were retrospectively analyzed. Preoperative and 6-month postoperative CBCT scans were used to assess skeletal and dental expansion at multiple levels, including molar and premolar tipping.

Additionally, premaxillary volumetric changes were measured using Mimics and 3-Matic software for precise segmentation and 3D analysis. Patients were classified into V, U, and square-shaped maxillae, and statistical analyses were performed to examine the correlation between volume increase, skeletal expansion, tipping, and incisor alveolar bone loss.

Results: The V-shaped maxilla exhibited the highest premaxillary volumetric expansion, while the square-shaped maxilla had the least increase ($p > 0.05$). Skeletal expansion was also greater in the V-shaped group, whereas square-shaped maxilla showed more restricted widening. Molar and premolar tipping were significantly higher in the V-shaped group ($p < 0.05$). A strong negative correlation was found between skeletal expansion and incisor bone loss in the square-shaped maxilla ($r = -0.82$, $p = 0.003$), while no correlation was found in V and U groups.

Conclusion: Maxillary arch morphology influences skeletal, dental, and premaxillary volumetric expansion after SARPE. V-shaped maxilla shows greater volume increase and tipping, whereas square-shaped maxilla exhibits restricted expansion and higher anterior bone loss. Mimics and 3-Matic provide valuable insights into post-SARPE changes.

Keywords: SARPE, premaxillary volume, skeletal expansion

OP-035
Preliminary Results from the Study of Therapeutic Exposures and Risk Factors in MRONJ

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Objective: While having a deep impact on oral quality of life of the affected, medication-related osteonecrosis of the jaw (MRONJ) remains underrecognized among recipients of antiresorptive/antiangiogenic therapies. In this study, we aimed to investigate the associations between age, gender, indications for medication use, and MRONJ development to explore potential contributors.

Materials-Methods: This prospective observational study includes patients diagnosed with or at therapy-related risk for MRONJ at the Marmara University Oral and Maxillofacial Surgery Clinic between January 2024 and February 2026 (Clinical Trial No: NCT06430762). In this analysis, we presented first year results of the patients, where we analyzed data on age, gender, systemic diseases, and medications. Statistical analyses were performed using GraphPad (Prism 10.0).

Results: Out of 106 cases evaluated, the mean age was 63.6±10.6 years, with female constituting 87.7%. We detected 25 patients with MRONJ. Osteoporosis was present in 71.1% and malignancy in 34.1%. We found no significant difference between age and necrotic bone-documented MRONJ ($p = 0.080$). Women tended to have a 3.3-fold higher risk of MRONJ than men did (OR = 3.3, 95% CI: 0.9–10.6). We detected a significant association of the therapeutic indication to MRONJ ($\chi^2 = 32.6$, $p < 0.001$), with cancer patients being 19 times more likely to have MRONJ than osteoporosis patients (OR = 19.2, 95% CI: 5.8–54.4).

Conclusion: Antiresorptive and antiangiogenic drug use for cancer appears to be related with increased MRONJ risk and severity. The study warrants further data to explore additional contributing factors.

Keywords: Cancer, Osteoporosis, Osteonecrosis of the Jaw

OP-037
A Rare Peripheral Osteoma Localized in the Lingual Region of the Mandible Causing Swallowing and Eating Difficulty: A Case Report and Literature Review

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Objective: Osteomas are benign bone lesions that grow slowly and can be either compact or cancellous in structure. Their etiology and pathogenesis remain uncertain. However, they are thought to be true neoplasms, developmental anomalies, or reactive tissue growths resulting from trauma. Osteomas are classified into three types: central, peripheral, and extraskeletal. Although they are commonly found in the craniofacial region, they rarely develop in the jawbones.

Case: This case involves a 43-year-old male patient who presented to our clinic with a slowly growing mass in the right lingual region of the mandible, which had been present for four years and was causing restricted tongue movement, as well as difficulty in speaking and swallowing. Intraoral examination revealed that the mucosa covering the mass was healthy, with no signs of ulceration. Physical examination of the affected area identified a painless, hard, non-pulsatile, immobile mass measuring approximately 3×2×2 cm. Radiographic evaluation showed a radio-opaque mass in the right lingual region of the mandible. Based on clinical and radiographic examinations, the mass was prediagnosed as an osteoma and was completely excised using an intraoral approach under local anesthesia.

Conclusion: In conclusion, peripheral osteomas are rarely seen in the jaw bones. If these pathologies cause aesthetic and functional disorders as a result of their growth, surgical excision is required.

Keywords: Mandible, Neoplasm, Peripheral osteoma

OP-038
Management of Multiple Odontogenic Keratocysts Associated with Gorlin-Goltz Syndrome: A Case Report

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Objective: The odontogenic keratocyst (OKC) is a developmental cyst with distinctive histopathological features and an aggressive biological behavior. It is believed to originate from the proliferation of dental lamina remnants. OKCs are typically asymptomatic and solitary but may be associated with nevoid basal cell carcinoma syndrome (NBCCS). NBCCS, also known as Gorlin-Goltz syndrome, is a rare autosomal dominant disorder characterized by a predisposition to basal cell carcinomas (BCCs), skeletal anomalies, and multiple odontogenic keratocysts.

Case: A 40-year-old male presented to the Süleyman Demirel University Oral and Maxillofacial Surgery Clinic with swelling and pain in the left mandible. Radiographic examination revealed a large cyst in the left mandible, extending from the canine tooth to the coronoid process and sigmoid notch. In addition, a large cyst surrounding the impacted right lower third molar was observed, while the right maxillary third molar was associated with cysts extending into the maxillary sinus. Physical examination revealed hypertelorism. Biopsy confirmed multiple odontogenic keratocysts, leading to a diagnosis of Gorlin-Goltz Syndrome. During treatment, the patient underwent marsupialization and enucleation procedures, along with the extraction of impacted wisdom teeth. The patient's left maxillary third molar has been under follow-up for 18 months without any reported complaints.

Conclusion: Although radical resection has the lowest recurrence rate, it is not preferred due to postoperative discomfort and the need for reconstructive surgery. In cases of multiple odontogenic keratocysts, genetic evaluation is crucial for early diagnosis and the management of potential complications.

Keywords: Enucleation, Gorlin-Goltz syndrome, Odontogenic keratocyst

OP-039
Bone Necrosis Following Labial Frenectomy with Diode Laser: A Very Rare Case Report

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Objective: Diode lasers are widely utilized in soft tissue surgery due to their advantages, such as minimal bleeding and rapid healing. However, improper application may lead to unexpected tissue damage. To the best of our knowledge, this case report presents the first documented case of bone necrosis following labial frenectomy with a diode laser.

Case: Diode lasers are widely utilized in soft tissue surgery due to their advantages, such as minimal bleeding and rapid healing. However, improper application may lead to unexpected tissue damage. To the best of our knowledge, this case report presents the first documented case of bone necrosis following labial frenectomy with a diode laser.

Conclusion: Diode lasers operate based on the principle of optical absorption, generating a controlled photothermal effect in the target tissue, which is not expected to produce heat levels sufficient to damage deep tissues. However, contamination of the laser fiber with blood may lead to increased absorption of laser energy by hemoglobin, causing excessive heating of the fiber tip and resulting in a thermal effect similar to cauterization. In this case, it is believed that the observed bone necrosis occurred as a consequence of heat accumulation at the tip of laser fiber. This case highlights that inappropriate conditions during diode laser application can lead to unexpected deep tissue damage. To prevent such complications, prolonged contact of the fiber tip with the tissue should be avoided, and regular cleaning of the fiber tip should be ensured.

Keywords: Diode Laser, Frenectomy, Bone Necrosis

OP-040
Use of Botulinum Toxin in The Treatment of Gummy Smile: A Case Series

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Objective: The gummy smile is an aesthetic problem that is usually treated with surgical or orthodontic procedures. Although surgical procedures such as maxillary augmentation or lip repositioning offer permanent results, younger patients in particular avoid surgery due to the postoperative healing process, irreversible anatomical changes, and potential complications. Botulinum toxin (BTX) has emerged as a minimally invasive and reversible alternative that improves smile aesthetics by reducing excessive muscle activity.

Case: This case series presents 4 patients treated with BTX for gummy smile. In the first patient with vertical maxillary excess, excessive lip elevation was limited by injections into the levator labii superioris and levator labii superioris alaeque nasi muscles. In the second patient with maxillary protrusion, excessive lip retraction and gingival appearance were reduced by application of BTX to the levator labii superioris muscle. In the third patient with a unilateral gummy smile due to transverse maxillary irregularity, asymmetry was corrected with asymmetric injections to the zygomaticus minor and levator labii superioris muscles. Finally, in the fourth patient with a gummy smile due to overactivity of the orbicularis oris muscle, the gingival appearance was reduced after BTX was applied to the muscle.

Conclusion: BTX is a highly effective approach to the treatment of gummy smile and a reliable alternative to surgery with patient-specific planning. Proper patient selection and precise injection techniques are critical for optimal results.

Keywords: Botox, Gummy smile, Vertical maxillary excess

OP-043
Open Reduction in Condylar Fractures: Case Report

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Objective: Condylar fractures are among the most common fractures of the maxillofacial region, and surgical treatment is determined based on clinical and radiological evaluations. This case report presents the surgical incision types, plate fixation, and panoramic radiographic follow-up of patients who underwent open reduction for condylar fractures.

Case: Four patients diagnosed with condylar fractures and treated with open reduction were evaluated. Surgical approaches were determined based on patient characteristics, fracture location, time elapsed after trauma, and surgical access requirements. Preauricular and retromandibular incision techniques were used to access the fracture site, and internal fixation was achieved using titanium plates and screws. Postoperatively, the healing process was monitored through panoramic radiographs, assessing fracture consolidation and malocclusion..

Conclusion: In the open reduction of condylar fractures, the choice of incision should consider surgical access and aesthetic concerns. Panoramic radiographs can be used as a follow-up method to evaluate fracture healing in the postoperative period. This case report highlights the significance of surgical incision selection and radiological monitoring in the clinical decision-making process.

Keywords: Condylar fracture, open reduction

OP-045
Benign Paroxysmal Positional Vertigo After Orthognathic Surgery: Clinical Presentation and Management

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Objective: Benign paroxysmal positional vertigo (BPPV) is a common vestibular disorder characterized by temporary,recurrent episodes of vertigo. Surgical factors such as a hyperextended head position,prolonged operative duration,and repetitive percussive or vibratory stress can contribute to displacement of otoliths into the posterior semicircular canal.

This presentation reports a case of BPPV after orthognatic surgery,detailing its diagnostic approach and therapeutic management.

Case: A 23-year-old male patient underwent orthognathic surgery at our hospital.On the postoperative third day,the patient did not experience vertigo during routine activities performed in an upright position.However,severe vertigo triggered by positional changes,such as turning from one side to the other in bed,bending forward and subsequently looking upward. According to patient's description of symptoms,postoperative BPPV was suspected as the most likely diagnosis.In this case, most possible mechanism explaining its occurrence is indirect trauma to the inner ear labyrinth due to the use of a mallet and osteotome in the maxilla,which is anatomically close to the temporal bone.Mechanical energy can spread through adjacent bony structures,potentially displacing otoliths within the inner ear and leading to vertigo symptoms.The patient was referred to the otolaryngology(ENT) clinic for further evaluation and management.The diagnosis was made using the Dix-Hallpike maneuver,performed by an otolaryngologist.Our patient,diagnosed with posterior canal-type BPPV,demonstrated characteristic torsional nystagmus and easly treated with Epley Repositioning Manoeuvre. Following this maneuver,the patient experienced a significant reduction in symptoms.

Conclusion: Orthognathic surgeons should consider the possibility of postoperative BPPV and counsel patients properly about early diagnosis and treatment.

Keywords: le fort 1 osteotomy, orthognatic surgery, vertigo

OP-046
Management Of Displaced Condylar Fractures With Open Reduction: Three Case Reports

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Objective: Condylar neck fractures are frequently encountered after maxillofacial trauma. In this case report, the treatment of three adult patients with displaced condylar neck fractures after trauma by open reduction will be presented.

Case: 22-, 39-, and 46-year-old patients who were admitted to our center with a history of trauma had symptoms of restricted mouth opening, occlusal malocclusion, pain during mouth opening, and deviation. Tomography images showed that the condyle was displaced medially in two patients and laterally in one patient. Open reduction was planned with an extraoral approach under general anesthesia. Two patients underwent only submandibular approach, and one underwent both retromandibular and endural approaches. The occlusion was corrected with intermaxillary fixation. After exposing the fracture line, the displaced condylar fracture segment was reduced in the correct position and fixed with miniplates. A nerve stimulator was used for facial nerve monitoring in all patients during the operation. No complications were observed in patients during regular follow-ups.

Conclusion: In displaced condylar neck fractures, the ramus length is shortened on the affected side. In this condition, both facial asymmetry and deviation during mouth opening are seen in patients. Therefore, open reduction is the most appropriate treatment for this kind of fractures.

Keywords: Mandibular condyle, Fracture, Open reduction

OP-047
Rehabilitation Of A Severe Class II Patient With Intraoral Distraction Osteogenesis and Genioplasty Procedures: A Case Raport

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Objective: Dentofacial deformities are defined as conditions in which the facial skeleton deviates from normal. Surgical treatments such as distraction osteogenesis, orthognathic surgery, and genioplasty are selected according to the severity of the deformity and the patient. Distraction osteogenesis describes the formation of new bone created by the gradual separation of two bone surfaces after an osteotomy. Distraction osteogenesis promotes soft tissue growth along with 3D bone gain and may eliminate the need for bone grafting to correct large malformations. Genioplasty is a surgical method used to provide facial aesthetics by repositioning the chin tip.

Case: In this case report, a 23-year-old female patient with class II bite, 17 mm positive overjet, who applied to Süleyman Demirel University Oral and Maxillofacial Surgery Clinic with the complaint of dentofacial deformity and obstructive sleep apnea, had mandibular distraction osteogenesis and subsequent genioplasty treatment will be explained.

Conclusion: In the treatment of dentofacial deformities, distraction osteogenesis is a treatment approach that has been used safely for many years. With the correct indication and planning, distraction osteogenesis stands out as an advantageous approach in this case because it eliminates the need for bone grafting, increases the amount of soft tissue along with bone, and widens the airway. Then Genioplasty corrects any asymmetries that may occur. In cases with large defects and to provide facial symmetry, distraction osteogenesis and genioplasty can be applied together.

Keywords: Dentofacial deformity, Distraction osteogenesis, Genioplasty

OP-048
Increasing The Vertical Height Of The Ramus Mandible Of A Patient With Facial Asymmetry By Extraoral Inverted-L Osteotomy

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Objective: A 19-year-old female patient was admitted to our clinic with the complaint of facial asymmetry. On radiologic examination, the left ramus was shorter than the right ramus.

Case: Scintigraphy showed osteoblastic involvement of the right condyle. However, tomography evaluation revealed that the left condyle was smaller than normal. Therefore, a vertical deficiency in the left ramus was also considered. As a result of our measurements of tomography images and the 3D model, we decided to raise the left ramus by 10 mm. Simultaneous surgery was performed as follows: Condylectomy and disc repositioning for hyperplasia of the right condyle, extraoral inverted-L osteotomy to lengthen the left ramus, intraoral sagittal split osteotomy for the right ramus, Le Fort-1 osteotomy for maxillary insufficiency, genioplasty for the chin tip, and iliac grafting for the gap area created by the inverted-L osteotomy. A submandibular approach was used for inverted-L osteotomy. A reconstruction plate prepared on a previously obtained 3D model was placed to fix the vertical ramus segments. For the right condyle, condylectomy was performed with the endural approach. Afterwards, the disc was repositioned and the disc was fixed to the condyle head with anchor screws.

Conclusion: Correction of facial asymmetries caused by vertical insufficiency of the ramus is not possible with sagittal split osteotomy alone. Reverse-L osteotomy or distraction osteogenesis is necessary to increase the vertical height of the ramus. In this case, an extraoral Reverse-L osteotomy was performed to correct the patient's facial asymmetry and a successful result was obtained.

Keywords: Inverted-L osteotomy, Simultaneous surgery, Facial asymmetry

OP-049
Investigation Of The Effects Of Menopause On The Quality And Quantity Of Intraoral Autogenous Block Graft Donor Sites Using Cone Beam Computed Tomography

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Objective: Menopause results in the end of the menstrual cycle and the loss of the positive effects of estrogen on health. One of these losses is the rapid weakening of bones. Estrogen deficiency causes a decrease in bone density and an increase in the risk of osteoporosis. The aim of this study was to examine the graft volume that can be obtained from intraoral autogenous graft donor sites and the changes in bone density of these grafts in the postmenopausal period.

Materials-Methods: A total of 60 patients, 30 patients over the age of 55 and 30 patients between the ages of 20 and 40, who were determined to be menopausal based on FSH, LH and estrogen levels in a blood test performed by a gynecologist and who had menstrual irregularity for at least 5 years, were examined using an i-CAT (Imaging Sciences International, Hatfield, USA) cone beam computed tomography device.

Results: As a result, we observed that menopause and the physiological changes it brings have negative effects on the ramus and tuber of the intraoral autogenous block graft donor sites of the patients. No significant difference was observed between the experimental groups in the symphysis donor site.

Conclusion: In conclusion, we think that the negative effects of menopause and the subsequent physiologic changes on the intaoral region and this information will guide Oral and Maxillofacial Surgeons when planning the surgeries of postmenopausal female patients requiring reconstruction with autogenous grafts and that more studies should be done on this subject.

Keywords: Menopause, Autogenous Block Graft, CBCT

OP-050
Epidemiological Characteristics of Patients Diagnosed with Oral Cancer: A Retrospective Evaluation of the Last 45 Years at a University Department

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Objective: The aim of this study was to evaluate epidemiological characteristics of patients diagnosed with oral cancer and to compare the data of the last 10 years with previous years.

Materials-Methods: The patients diagnosed with oral cancer between 1980 and 2024 were included in this study, and divided into two groups according to the time of diagnosis. Patients age and gender, and the incidence, type, localization of oral cancer were recorded. Data from 1980 to 2000 and from 2014 to 2024 was compared.

Results: A total of 6.712 biopsy reports were reviewed and 145 patients with oral cancer (87 male and 58 female) were detected in the last 45 years. The incidence of oral cancer was 2.16%. The average age of patients was 49 years and male to female ratio was 1.5:1. The incidence was 2.05% before 2014, while it was 2.31% in the last 10 years. There was a statistically significant increase in female patients in the last 10 years. ($p = 0.041$) The average age of patients was significantly increased between 2014-2024 compared to 1980-2000. ($p = 0.001$) The most common oral cancer was found squamous cell carcinoma (42.8%) followed salivary gland malignancy (17.9%) and hematological malignancy (14.5%).

Conclusion: The incidence of oral cancer showed an increasing trend in the last 10 years. The female gender and older population were found to be at higher risk for oral cancer.

Keywords: Oral cancer incidence, Oral squamous cell carcinoma, Cancer epidemiology

OP-051
Evoluation of the Diagnosis And Therapeutic Approaches of Jaw Cysts: A Retrospective Study

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Objective: This study aims to evaluate the diagnosis and treatment of localized cysts in the jaws based on histopathological findings, radiographic examinations, and clinical assessments. The study further explores the prevalence of different cyst types and their distribution according to anatomical location, gender, and treatment approaches.

Materials-Methods: Between 2014 and 2024, a total of 2,039 odontogenic cyst cases were investigated at the Faculty of Dentistry, Dicle University. The study included patients diagnosed with histopathologically confirmed cysts located in the mandible or maxilla. Pseudocyst cases and patients presenting due to recurrence were excluded from the study. The patients' gender, age, cyst location, radiological findings, and histopathological results were analyzed.

Results: When a total of 2,039 cases were analyzed, it was found that the most common cysts were radicular cysts, with a higher number of male patients compared to females. Additionally, cyst occurrence was more frequent in the mandible compared to the maxilla. The most commonly applied treatment method was enucleation, while in certain cases, marsupialization was preferred to prevent complications.

Conclusion: The accurate diagnosis and appropriate management of jaw cysts are crucial for preventing complications and preserving oral health. Regular follow-up after treatment is essential to minimize the risk of recurrence.

Keywords: dental cyst, enucleation

OP-052
Investigation Of The Effect Of Hydrogel Containing Angiogenesis Triggering Particle On Bone Healing After Tooth Extraction İn Zoledronic Acid Treated Rats

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Objective: This study aims to investigate the effect of GS4012, a VEGF inducer, on bone healing in rats treated with zoledronic acid, which is known to cause osteonecrosis of the jaw (ONJ) by impairing soft and hard tissue healing.

Materials-Methods: Forty-eight adult male Sprague-Dawley rats were randomly assigned to four groups, each containing 12 rats, with two subgroups based on the time of sacrifice (4th and 6th weeks). In the first group, bone defects were created after tooth extraction without zoledronic acid. In the second group, bone defects were created after tooth extraction following zoledronic acid injection. In the third group, GS4012 at a dose of 10 µg/kg in PLGA-PEG-PLGA hydrogel was locally applied to the bone defects after tooth extraction. In the fourth group, GS4012 in the same dose was applied after zoledronic acid injection and tooth extraction. Zoledronic acid was administered intraperitoneally at a dose of 7.5 µg/kg once a week for four weeks. Bone healing was evaluated histopathologically and radiologically at the 4th and 6th weeks after tooth extraction.

Results: The results showed that GS4012, delivered in PLGA-PEG-PLGA hydrogel for sustained local release, has the potential to counteract the negative effects of zoledronic acid on soft tissue healing.

Conclusion: These findings suggest that GS4012 could be a promising therapeutic agent for treating ONJ.

Keywords: rat, vascular endothelial growth factor inducer, zoledronic acid

OP-053
Effects of Enhanced Recovery After Surgery Elements on Surgical Outcomes and Recovery in Orthognathic Surgery

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Objective: Enhanced Recovery After Surgery (ERAS) protocols have emerged as a key approach to accelerate postoperative recovery and minimize complications in surgical patients. This study aimed to evaluate the impact of ERAS protocols on surgical and postoperative outcomes in orthognathic surgery.

Materials-Methods: A retrospective cohort study was conducted on patients who underwent orthognathic surgery, divided into two groups: ERAS (n=30) and conventional care (non-ERAS; n=50). Demographic variables and clinical outcomes were collected, including operative time, length of hospital stay (LOS), Morphine Milligram Equivalents (MME), estimated blood loss (EBL), intraoperative methylprednisolone (MPZ), transfusion requirement, intraoperative fluid volume, and postoperative neurosensory disturbance (VAS scale). Appropriate statistical tests were used based on data distribution.

Results: The ERAS group demonstrated significantly shorter operative times compared to the non-ERAS group (251.97 ± 88.74 min vs 337.74 ± 77.26 min, $p<0.001$), as well as lower intraoperative opioid use (8.83 ± 3.70 mg vs 11.86 ± 5.01 mg, $p=0.010$), reduced estimated blood loss (575.33 ± 227.24 ml vs 848.40 ± 532.08 ml, $p=0.0034$), and lower postoperative neurosensory disturbance scores (VAS: 3.37 ± 1.73 vs 5.52 ± 2.61, $p<0.001$). No statistically significant differences were found in length of stay (LOS), intraoperative fluid volume, MPZ use, or transfusion requirements between the groups.

Conclusion: ERAS protocols improve intraoperative efficiency and enhance patient comfort by reducing surgical time, opioid consumption, blood loss, and neurosensory complications, without increasing hospital stay or fluid requirements. These findings support the integration of ERAS pathways into orthognathic surgical practice.

Keywords: Enhanced Recovery After Surgery (ERAS), Orthognathic Surgery, Perioperative Outcomes

OP-054
Three-Dimensional Analysis of Smile Transformation in Class III Patients Following Orthognathic Surgery: A Stereophotogrammetric Study

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Objective: Smile esthetics is crucial in orthodontic and orthognathic planning, especially for patients with dentofacial deformities seeking enhanced facial harmony. This study aimed to evaluate changes in smile parameters in Class III patients pre- and post-orthognathic surgery using three-dimensional stereophotogrammetry, providing objective data on soft tissue alterations through correction.

Materials-Methods: Conducted at Baskent University's Oral and Maxillofacial Surgery Department, the retrospective study included 13 Class III patients who underwent bimaxillary orthognathic surgery. The study focused on the social smile, a standardized expression suitable for analysis. Smile parameters, including esthetic variables, lip height ratio, lip asymmetry, and lip area, as well as 3D volumetric data, were compared before surgery and at a 6-month postoperative follow-up using standardized social smile photographs and 3D facial scans. Pre- and postoperative differences were assessed with paired t-tests and Wilcoxon signed-rank tests, with significance set at $p<0.05$. Confidence intervals (95%) were calculated for main outcomes.

Results: Results showed significant improvements in smile arc, symmetry, and upper lip curvature, along with reduced buccal corridor width. These findings underscore 3D stereophotogrammetry's precision in documenting soft tissue changes linked to skeletal adjustments from surgery.

Conclusion: This study highlights orthognathic surgery's positive impact on smile esthetics in Class III patients and supports the use of 3D stereophotogrammetry as a reliable method for documenting these changes. This protocol allowed accurate pre- and post-surgery comparisons, emphasizing the need for 3D assessments in routine evaluations. Unlike previous studies relying on cephalometry and photographs, this is the first study to utilize 3D stereophotogrammetry for assessing smile parameters.

Keywords: Orthognatic Surgery, Smile parameters, Three-dimensional (3D) stereophotogrammetry

OP-055
Two Different Fixation Systems: Which One of The Best for Relapse in Orthognathic Surgery

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Introduction: Orthognathic surgery is a surgical technique applied to correct skeletal deformities occurring in the jaw and face region. In orthognathic surgery operations, maintaining this result is as important as achieving a successful result. Unexpected changes in skeletal, dental and soft tissue after surgery are called relapse. Skeletal relapse is affected by many factors and is observed more frequently.

Material-Method: Forty patients who underwent bimaxillary surgery were divided into two groups according to the fixation method. While 20 patients in the first group were fixed with bicortical screws, 20 patients in the second group were fixed with monocortical screws and plates. The evaluation of the patients was carried out using lateral cephalometric radiographs taken before surgery (T0), 1 week after surgery (T1) and 6 months after surgery (T2). The obtained data were analyzed using the WebCeph cephalometric analysis program and compared in terms of postoperative change (T1-T0) and postoperative recurrence (T1-T2).

Result: In patients who underwent bicortical screw and monocortical screw plate application, no significant difference was observed between the groups in the values of SNA, SNB, ANB, FMA, IMPA, Pog to N perpendicular (FH), FH to AB, A-B to Mandibular plane angle, Witts, SnGoGn, L1 to A-pog (Mcnamara), nasolabial angle, E plane-upper lip distance, E plane-lower lip distance.

Conclusion: Result considering its advantages such as ease of application, lower risk of nerve damage and not creating excessive force on the condyle, monocortical screw-plate system may be a safer and more effective fixation method.

Keywords: Fixation, Orthognathic Surgery, Relapse

OP-056
Retrospective Evaluation of Positional Changes in the Inferior Alveolar Nerve Following Mandibular Setback and Advancement Surgeries: Effects on Neurosensory Recovery

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Objective: This study investigates whether positional changes in the inferior alveolar canal (IAC) after sagittal split mandibular osteotomy (SSMO) affect neurosensory recovery. By analyzing IAC alterations, we aim to determine their correlation with neurosensory deficits (NSD) in orthognathic surgery patients.

Materials-Methods: A retrospective study was conducted on 40 patients with Class II or III dentofacial deformities who underwent orthognathic surgery at Bezmialem Vakıf University (2017–2024). Inclusion criteria required at least 6 months of follow-up, preoperative and postoperative (>=6 months) CT scans, and a completed neurosensory evaluation survey. Three-dimensional reconstructions of the mandible and IAC were generated using Mimics and 3-Matic software. IAC positional changes along the x, y, and z axes were analyzed, and NSD severity was assessed using a 10-item visual analog scale (VAS) survey.

Results: Postoperative CT and 3D analysis revealed significant mediolateral and vertical shifts in the IAC. However, these displacements were not significantly associated with prolonged NSD ($p>0.05$). Larger mandibular movements increased the risk of transient neurosensory impairment, but recovery rates were similar regardless of IAC displacement.

Conclusion: Although the IAC undergoes positional changes after SSMO, these do not significantly impact long-term neurosensory recovery. Thus, concerns about IAC displacement should not be a primary consideration in causing postoperative sensory outcomes. Further research with larger cohorts and objective testing is needed.

Keywords: Inferior Alveolar Nerve, Mandibular Surgery, Orthognathic Surgery

OP-057
Measuring the Knowledge Levels of Dentists and Dentistry Students on the Use of Prophylactic Antibiotics in Systemic Diseases

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Aim: Antibiotics are prescribed for prophylactic and infectious purposes. İmproper use can cause resistance and world-wide threat. Our aim on this cross sectional study is to measure and increase knowledge level of dentistry students, dentists and specialized dentists about diseases and procedures that require prophlaxy.

Methods: A questionnaire was e-mailed over 10.000 dentists and 750 senior dentistry students. The questionnaire answered within a 2-month period (january-february 2025). Data analyzed with R program. Kolmogrov-smirnov test used for examine Mann Whitney U test used for compare in binary groups. Pearson Chi-Square test, Yates correction-Monte Carlo correction were used. The significance taken as $p<0.05$

Results: The total response was 610. 76.5% for dentistry students, 15.3% for dentists and %8.2 speacilized dentists. 87.3% lower than 10 year experience 12.7% higher than 10 year experience. The median knowledge total score was 32 for those with less than 10 year experience, while it was 30.5 for those with more than 10 years of experience. The score of those with less than 10 year of experience was better, there was no significant difference. ($p=0.687$). The rate of having low-middle-high knowledge among experts is %1.4-%50-%48.6. The rate of having low-middle-high knowledge among non-expert is %1.8-%46.7-%51.5. While though low knowledge is lower in expert group there is no significant difference. ($p=0.860$)

Conclusions: Dentists were found to have sufficient knowledge about usage of antibiotics in prophylactic diseases. Dentists,dentistry students and specialized dentists should attend continuing education programs current guidelines to prevent antibiotic resistance.

Keywords: antibiotic prescribing practice; dental education; dentists' knowledge; systemic disease; prophylactic antibiotic

OP-058
Evaluation of the Optimal Angle for Low-Short Medial Osteotomy in Sagittal Split Ramus Osteotomy

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Objective: The aim of this study was to determine the ideal low and short medial osteotomy distance and angle to minimize inferior alveolar nerve (IAN) damage in patients with dentofacial deformities.

Materials-Methods: A detailed analysis of computed tomography (CT) images was conducted for 111 ramus of 56 patients with dentofacial deformities, aged between 18 and 41 years (mean age 24.85 ± 4.91). CT images were used to measure ANB angles, and patients were categorized into two groups based on Angle classification. The distance from the inferior alveolar nerve and cortical bone thickness were evaluated at medial osteotomy angles of 0, 15, 30, and 45 degrees from the occlusal plane level in CT sections. The results were compared based on gender, age, and Angle classifications.

Results: The study included 56 patients (111 ramus CT images), comprising 47,7% females (n=53) and 52.3% males (n=58). Patients were categorized into Angle Class II (29 patients), and Angle Class III (27 patients). Statistically significant differences were found in cortical bone thickness among all groups ($p<0.05$). In the evaluation of IAN distance, the osteotomy parallel to the occlusal plane resulted in the farthest distance, and this difference was statistically significant ($p<0.05$). According to Angle classification analysis, the distance to IAN was observed to be highest in Angle Class II patients, and this difference was statistically significant ($p<0.05$).

Conclusion: In Angle Class II and Class III patients, osteotomy parallel to the occlusal plane is recommended; however, In asymmetry cases, a more angulated osteotomy preventing segment overlap should be shorter.

Keywords: Low-Short Medial Osteotomy, inferor alveolar nerve, Sagittal Split Ramus Osteotomy

OP-059
Evaluation Of Cephalometric Parameters After Bimaxillary Advancement With Counter-Clockwise Rotation İn Adults With Obstructive Sleep Apnea Syndrome: Three Case Reports

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Objective: These case reports aim to compare and evaluate the pre- and postoperative cephalometric parameters of 3 patients with moderate obstructive sleep apnea syndrome (OSAS) diagnosed by polysomnography (PSG).

Case: PSG and sagittal cephalometric (SS) film recordings were obtained and pre- and postoperative cephalometric parameters were compared. SS parameters (SNA, SNB, ANB), Condyle-A point distance, Condyle-Pogonion (Pog) distance, Mandibular plane-Hyoid bone distance and Tongue base-Postpharyngeal distance were evaluated with SS films taken before and after surgery. Three patients underwent bimaxillary advancement with counter clockwise (CCW) rotation. One patient underwent an additional genioplasty procedure. There was a significant increase in cephalometric parameters (SNA, SNB, ANB: 5.88, 10.39, -4.98). Increasing 8.7 mm in the condyle-A, 10.91 mm in the Condyle-Pog, 3.21 mm in the mandibular plane-hyoid and 10.06 mm in the base of the tongue-postpharyngeal distances were observed.

Conclusion: Bimaxillary advancement with CCW rotation increased airway volume and thus improved all symptoms seen in OSAS.

Keywords: Obstructive sleep apnea, Bimaxillary advancement, Counter-clockwise rotation

OP-060
Virtual Surgical Planning and CAD-CAM-Guided Mandibular Border Recontouring: Report of Two Cases

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Objective: The aim of this case report is to present a contour correction approach for patients experiencing esthetic dissatisfaction due to mandibular asymmetry. Utilizing virtual surgical planning (VSP) and computer-assisted design and manufacturing (CAD-CAM), mandibular border recontouring was performed via intraoral incisions to restore facial harmony.

Case Presentation: Two cases of mandibular border recontouring were performed using a CAD-CAM custom-guided approach. The first patient, a 21-year-old female, had previously undergone bimaxillary orthognathic surgery in February 2023. Due to esthetic concerns, mandibular border refinement was performed in January 2024. The second patient, a 21-year-old male, underwent mandibular border recontouring solely for esthetic purposes. In both cases, VSP was utilized to assess the extent of contouring needed, and CAD-CAM technology facilitated precise modifications. All surgical procedures were conducted through intraoral incisions to minimize visible scarring. Postoperative outcomes were evaluated through preoperative and postoperative assessments at 0 and 6 months, incorporating the Oral Health Impact Profile (OHIP). At the 6-month follow-up, both patients demonstrated significant improvement in facial contour and reported high satisfaction with the results. No major complications were observed during the recovery period.

Conclusion: Virtual surgical planning combined with computer-assisted design and manufacturing enables precise and predictable outcomes in mandibular border recontouring. This technique offers a minimally invasive and effective solution for patients seeking esthetic refinement.

Keywords: *Mandibular asymmetry, Mandibular Border Recontouring, CAD-CAM*

OP-061
Adenomatoid Odontogenic Tumor: Case Series

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Objective: Adenomatoid odontogenic tumor (AOT) is a rare benign lesion comprising 3% of odontogenic tumors. It is slow-growing, noninvasive, and commonly misdiagnosed as an odontogenic cyst. AOT primarily affects young individuals, with a female predominance, in the second decade of life. It usually surrounds the crown of unerupted teeth, is most commonly located in the anterior maxilla, and frequently associated with an impacted canine. In this presentation includes the treatment methods of enucleation, enucleation with orthodontic traction and resection applied in AOT cases admitted to our clinic.

Case 1: A 17-year-old male presented with an impacted maxillary canine and lateral teeth. The lesion was associated with the lateral tooth. The impacted canine was extracted under local anesthesia, and the lesion was removed by enucleation. The lateral tooth was retained, and an orthodontic chain was placed for retention. Biopsy confirmed AOT.

Case 2: A young male presented with facial swelling. Panoramic radiographs revealed a multilocular lesion in the posterior mandible. The lesion was resected via an extraoral approach under general anesthesia. Biopsy confirmed AOT.

Case 3: A 15-year-old female with impacted maxillary canines and premolars. The related lesion was removed by enucleation after extraction of the impacted teeth. Biopsy confirmed AOT.

Conclusion: AOT is a benign, slow-growing lesion. Enucleation with extraction of the impacted tooth is the preferred treatment. Conservative management is sufficient, with a low recurrence rate of 0.2%. In rare cases, partial resection may be necessary. Prognosis is excellent in most cases.

Keywords: *adenomatoid odontogenic tumor, benign neoplasm, impacted tooth*

OP-062
Management Of Pathological Fracture Developed Following Surgical Treatment Of Mronj: A Case Report

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Objective: MRONJ is avascular necrosis of the jaws due to the use of certain medications including antiresorptives and antiangiogenics. The aim of this report was to present the management of a stage 3 MRONJ patient which proggressed into pathological fracture following the first surgery.

Case: A 62 years old female referred to our department with swelling and pain on the left side of the mandible. Clinical and radiological examination revealed stage 3 MRONJ. First surgery was performed by placing a straight reconstruction plate on the mandibular border. 2 months after the surgery, it was noticed that, the plate was migrated. Re-operation was performed by using a larger L-shaped reconstruction plate. At 6 month of follow-up, no complication or any sign of osteonecrosis was observed.

Conclusion: Management of MRONJ can be challenging even under optimal treatment circumstances. Therefore, close clinical and radiological follow-up is essential to prevent or early diagnose further complications.

Keywords: fracture, MRONJ, reconstruction

OP-063
Management Of Persistant Osteomyelitis Following Odontogenic Infection: A Case Report

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Objective: Osteomyelitis of the jaws may develop due to various factors and may have acute, subacute and chronic features. The main treatment is based on antibiotherapy and removal of the source of infection and the bone sequester, if present. The aim of this report was to present an osteomyelitis case which was re-exarcerbated at a distant site following the first treatment.

Case: A 33-year-old male referred to our department with swelling and pain on the right side of the mandible. The patient had an infected tooth extracted 6 months ago, did not experience any improvement in symptoms after the extraction. Radiological examination revealed periosteal reaction and bone areas with varying density in the defect region. The affected area was curated via intraoral approach, and antibiotic therapy was initiated. The patient, who did not attend follow-up appointments, returned after 4 months with complaints of restricted mouth opening, pain, and swelling on the right side of the mandible and extraoral fistula. Radiographic examination revealed a sequestrum at the lower border of the mandible. The patient underwent sequestrectomy via extraoral approach under general anesthesia. The healing was uneventful with no signs of infection at 4 months of follow-up.

Conclusion: Odontogenic infections may lead osteomyelitis which can be resistant to the treatment. Therefore, it is crucial to closely follow up these patients regarding a potential persistant infection.

Keywords: osteomyelitis, sequestrectomy, infection

OP-065
An Important Perspective to Prevent Unexplained Implant Failures by Finite Element Analysis

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Objective: The aim of this study was to measure the heat generated in bones of different densities during osteotomy by finite element analysis, to calculate the cooling time of the bone, to evaluate the effect of irrigations at different temperatures on the heat generated in the bone, and to observe the thermal changes in the adjacent implant socket while drilling the primary implant socket.

Materials-Methods: Cortical and spongiosis bone models were created according to Misch classification with D1, D2/D3 and D4 densities. Each model was drilled with 2.8, 3.5 and 4.2 mm diameter drills under 25°C and 10°C irrigation and without irrigation. In primary implant socket osteotomies in all cortical bone models, the bone temperature did not exceed 47°C with irrigation. When a 10°C irrigation solution was used, an effective temperature reduction was seen compared to 25°C irrigation.

Results: Continued irrigation after drilling reduced the bone temperature below the critical threshold. During implant osteotomy, it is recommended to use cooled irrigation and to continue irrigation to cool the bone between drilling, and to place the implants after all implant sockets have been prepared in cases where more than one implant is to be placed. Thus, thermal damage to the bone can be minimized.

Conclusion: Cooled irrigation effectively reduces bone temperature during osteotomy, minimizing thermal damage. Continuous irrigation further enhances cooling. For multiple implants, preparing all sockets before placement helps prevent heat accumulation, ensuring optimal bone preservation and implant success.

Keywords: Thermal damage, Osteointegration, Implant osteotomy

OP-066
Keeping the Roots, Losing the Risks: Long-Term Outcomes of Coronectomy

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Objective: This study aims to evaluate the surgical and radiological outcomes of coronectomy for impacted mandibular third molars in proximity to the inferior alveolar canal.

Materials-Methods: A retrospective analysis was conducted on patients who underwent coronectomy for impacted mandibular third molars between 2021 and 2024. Inclusion criteria consisted of a minimum follow-up period of six months, with panoramic radiographs taken pre-operatively, immediately post-operatively, and at least six months after surgery. Key parameters assessed included post-operative infection, signs of inferior alveolar nerve injury, migration of the retained roots, root exposure into the oral cavity and necessity for a second surgical procedure.

Results: Initially 46 patients were considered but 13 were excluded due to missing follow-up radiographs, resulting in a final study population of 33 patients. Throughout the follow-up period, no cases of persistent nerve damage were observed. None of the patients required a secondary surgery due to recurrent infection or root exposure into the oral cavity. The most prevalent radiological finding was the migration of retained roots. Dehiscence was noted in three cases which healed with secondary intention.

Conclusion: Coronectomy appears to be a reliable and effective method for avoiding inferior alveolar nerve injury in cases of impacted mandibular third molars in proximity to the inferior alveolar canal. The absence of long-term sensory deficits and the low incidence of complications suggest that this technique may be a valuable alternative to complete extraction, particularly when the risk of nerve damage is high.

Keywords: coronectomy, extraction, inferior alveolar nerve injury

OP-067
Relation Between Preoperative Cone Beam Computerized Tomography (CBCT) and Intraoperative Findings in Lateral Sinus Lifting

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Objective: Lateral sinus lifting is a common procedure to increase the vertical bone height for inserting dental implants in the posterior maxilla. Anatomical variations and pathological conditions in the maxillary sinus may effect the outcome of the surgical procedure. Therefore, CBCT is used to evaluate the maxillary sinus before the surgery. The aim of this prospective study was to find out the relation between preoperative CBCT findings and intraoperative findings during lateral sinus lifting procedure.

Materials-Methods: A total of 57 patients were randomly allocated in the study. In CBCT images, maxillary residual bone height, sinus membrane thickness, and presence of sinus septum were investigated preoperatively. Sinus membrane perforation and duration of the procedure were recorded intraoperatively. The results were assessed statistically.

Results: Twenty-seven males and 30 females were included. Mean sinus membrane thickness was 3.96 mm and mean residual bone height was 4.04 mm. Sinus septum was detected in 14 patients. Totally in 14 patients sinus membrane perforation was seen. The mean operation time was 30.94 min in patients without sinus septa and it was 34.18 min in patients with sinus septa. Out of 14 patients with sinus septa, 8 patients had sinus membrane perforation. There was a significant relation between presence of septum and membrane perforation but it has no effect on duration of the procedure.

Conclusion: CBCT is a useful tool to detect the anatomical variations and pathological conditions before lateral sinus lifting procedure. This may help surgeons predict and decrease the rate of complications.

Keywords: CBCT, Lateral sinus lifting, Complications

OP-068
The Effects Of Conventional Scalpel Versus Diode Laser Incision On Postoperative Morbidity After Impacted Third Molar Extractions

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Objective: This study aimed to evaluate the effects of conventional scalpel versus diode laser incisions on postoperative pain, edema, and trismus in impacted third molar surgery.

Materials-Methods: The study included a total of 32 patients with vertically impacted wisdom teeth on the right and/or left side. In each patient, the mucosa was incised under local anesthesia: with a diode laser in one group, and a scalpel in the other. Subsequently, the soft tissue flap was repositioned, and the wisdom tooth was extracted. Incisions made with the laser diode were not sutured, and incisions made with scalpel were closed with simple primary sutures. We measured the distances between the tragus and the commissure, between the tragus and the menton, and between the lateral canthus of the eye and the gonial angle, and mouth opening immediately before the operation by using a ruler. Patients were invited for follow-up after 48 hours and 7 days after the operation. Any edema and trismus measurements were recorded. Pain was evaluated using VAS.

Results: Mouth opening was significantly lower in the scalpel group compared to the laser group on postoperative day 2, but this difference was no longer statistically significant by postoperative day 7. Compared to scalpel incision, laser incision was associated with statistically lower pain scores and edema on postoperative days 2 and 7 ($p<0.05$).

Conclusion: In reference to our results, we conclude that using laser incisions in the surgery of fully impacted third molars positively affected postoperative complications of pain, edema and trismus.

Keywords: diode laser, impacted teeth

OP-069
Evaluation of the Postoperative Effects of H-PRF (Horizontal Platelet Rich Fibrin) After Impacted Third Molar Extraction: A Randomized Controlled Clinical Study

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Objective: Our study evaluated the effects of H-PRF and L-PRF on wound healing, regeneration, postoperative complications, and quality of life after mandibular impacted third molar extractions.

Materials-Methods: Our study included 75 patients aged 18–40 with impacted third molars retained in soft tissue. Patients were randomly assigned into three groups (H-PRF, L-PRF, and control) using the sealed envelope method, with 25 patients per group. The same surgeon performed all extractions, and PRF materials were placed in the extraction sockets, except in the control group. Postoperative pain, edema, mouth opening limitation, soft tissue healing, and quality of life were assessed on the 2nd and 7th days.

Results: The study found that PRF placement reduced postoperative edema, with no significant difference between L-PRF and H-PRF. Trismus showed no statistical difference between groups. Pain levels were lower in the L-PRF group, but differences were not statistically significant. PRF groups had less pain than the control group on multiple days, but again, no significant difference was found. Analgesic consumption was lower in the L-PRF group on the 2nd and 3rd days, but without statistical significance. Soft tissue healing was significantly better in PRF groups compared to the control group on the 7th postoperative day.

Conclusion: In our results, we observed that H-PRF is superior to L-PRF in reducing postoperative edema. However, we observed that L-PRF was more successful compared to H-PRF, especially in pain scores. L-PRF and H-PRF were found to be successful in soft tissue healing.

Keywords: H-PRF application, regenerative, Third molar complication

OP-070
Nasal Airway Function After Tooth-Borne Vs. Bone-Borne Surgical Assisted Rapid Maxiller Expansion: A Comparative Evaluation Using The Nose Scale

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Objective: The aim of this prospective clinical study was to compare nasal airway function using Nasal Obstructive Symptom Evaluation (NOSE) scale in subjects undergoing tooth-borne (TB) and bone-borne (BB) surgical assisted rapid maxillary expansion (SARME).

Materials-Methods: Fourty patients were included; 27 women, and 13 men (mean ages 18,38 ±3,24 years), all with a transverse maxillary deficiency who had bilateral crossbite combined with a high palatal vault and partial or near total nasal obstruction and an indication for SARME. Twenty-one patients received a tooth-borne distractor, and 19 received a bone-borne distractor (transpalatal distractor). The NOSE scale was administered before and 3 months after surgery. Descriptive statistics were done for the cohort while Wilcoxon signed rank test and Mann Whitney U tests were done for non parametric evaluation.

Results: During the follow-up period, the cohort's NOSE scores significantly improved, with a median decrease of 10 units ($p<0.05$). Patients with moderate and severe nasal obstruction experienced the greatest improvement ($p<0.05$). However, 12 patients' NOSE scores worsened. Conclusion: Our findings suggest that SARME improves nasal airway function, and patients with greater preoperative NOSE scores (>25) are more likely to experience relief from nasal obstruction.

Keywords: nasal airway function, NOSE scale, SARME

OP-071
Three-Dimensional Finite Element Evaluation of Two Custom Subperiosteal Implant Designs

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Objective: This study aimed to compare two distinct subperiosteal implant designs using three-dimensional finite element analysis (FEA) and to evaluate the stress distribution on prosthetic components and the surrounding bone structures.

Materials-Methods: A 3D finite element model of a Class II total maxillectomy was generated. Two treatment configurations were developed: SC-1, a conventional subperiosteal implant design, and SC-2, incorporating a diagonal bar extending to the zygomatic region. Simulated masticatory loads were applied—450 N vertically and 93 N obliquely. Maximum and minimum principal stress values on the bone, as well as von Mises stress (VMs) values on implant components, were recorded for each scenario.

Results: Under vertical loading, the SC-2 design demonstrated higher maximum principal stress values (Pmax) in the zygomaticomaxillary region. Similarly, under oblique loading, SC-2 exhibited increased stress in both regions compared to SC-1. VMs values on the fixation screws were lower in SC-1 under vertical forces, whereas they were lower in SC-2 under oblique forces.

Conclusion: The results indicate that the modified SC-2 design does not offer a substantial biomechanical advantage over the conventional subperiosteal implant configuration. Further research should aim to optimize traditional designs by integrating support from alternative anatomical regions to improve load distribution and implant stability.

Keywords: 1, 2, 3

OP-072
Evaluation Of The Effects Of Forces Applied At Different Angles To Pterygoid Osteotome on The Pterygomaxillary Junction Using Finite Element Analysis

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Objective: Le Fort I osteotomy is frequently used in maxillofacial surgery to facilitate the repositioning of the maxilla. During this procedure, a pterygoid osteotomy is performed to separate the maxilla from the pterygoid plates of the sphenoid bone. Undoubtedly, the most critical phase of Le Fort I osteotomy is the proper separation of the pterygoid junction. Failure to achieve adequate separation at this stage may result in various complications, including hemorrhage, ischemia, ophthalmological complications, optic nerve injury, lesions in the nasolacrimal duct, skull base fractures, and sinus infections—ranging in severity from mild to severe. The angle at which hammering forces are applied during the pterygoid osteotomy may play a crucial role in the fracture pattern and the amount of stress transmitted to surrounding structures. This study aims to investigate the effects of hammering forces applied at different angles to the osteotome during pterygoid osteotomy, specifically examining their impact on the pterygoid junction and adjacent structures

Materials-Methods: In this study, finite element analysis (FEA) was used to evaluate the biomechanical effects of hammering forces applied at different angles during pterygoid osteotomy in Le Fort I osteotomy. A 3D maxilla model was created using Rhinoceros software, and hammering forces were applied to the pterygoid osteotome at 12, 3, 6, and 9 o'clock positions at a 45° angle in addition to a perpendicular force. The resulting stress distribution in the pterygoid and surrounding structures was analyzed.

Results: The analysis revealed that force applied perpendicularly to the pterygoid osteotome caused the least stress in the pterygoid region and adjacent structures. Conversely, forces applied at oblique angles resulted in higher stress levels and increased the likelihood of undesired fractures in the surrounding bones.

Conclusion: The findings of this analysis suggest that applying hammering forces perpendicularly during pterygoid osteotomy minimizes stress in the pterygoid region and surrounding structures, leading to a more controlled and predictable fracture pattern.

Keywords: Le Fort I osteotomy, pterygoid seperation, force transmission

OP-073
Neuromodulator Applications After Temporomandibular Joint Surgery

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Objective: Muscle spasms and habitual muscle memory after temporomandibular joint (TMJ) surgery can make postoperative rehabilitation difficult. In this study, the efficacy of botulinum toxin (BTX) administration after different TMJ surgeries was evaluated. The aim of BTX is to improve mouth opening by reducing muscle spasms and modulate habitual muscle memory.

Materials-Methods: Three patients who underwent TMJ surgery at Ankara Yıldırım Beyazıt University, Faculty of Dentistry, Department of Oral, Dental and Maxillofacial Surgery between 2022-2024 were included in the study. One of the patients underwent coronoidectomy, one underwent condylectomy and one underwent discectomy. BTX injection and physiotherapy were applied to all patients in the postoperative period. Mouth openings were measured and evaluated preoperatively and periodically postoperatively.

Results: In all patients treated with BTX, mouth opening reached the optimum level and a significant reduction in muscle spasms was observed. BTX was found to be effective after three different surgical procedures.

Conclusion: It was observed that neuromodulatory applications contributed positively to the rehabilitation process after temporomandibular joint surgery. BTX was found to be effective in reducing postoperative muscle spasm and increasing mouth opening. It is recommended to evaluate its efficacy in more detail with larger sample studies.

Keywords: neuromodulation, surgery, temporomandibular joint

OP-074
Is Temporomandibular Joint Disease Associated With Anxiety?

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Objective: This study aimed to investigate the relationship with TMD and anxiety

Materials-Methods: The study included 174 patients who have TMDs at Ege University Department of Oral Surgery.. The STAI Analysis were used to evaluate anxiety levels in patients with TMDs. Statistical analyses were performed.

Results: A statistically significant association between TMD and anxiety was observed according to our findings.

Conclusion: These findings highlight that physical and mental health have an undeniable influence on each other.

Keywords: Temporomandibular joint dysfunction, anxiety

OP-075
Positional Analysis of Type 1B Condylar Hyperplasia Using CBCT

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Objective: This study aimed to assess positional variations in Type 1B condylar hyperplasia (CH) using cone-beam computed tomography (CBCT) and to evaluate the impact of hyperplastic growth on the contralateral condyle.

Materials-Methods: A retrospective observational study was conducted on 35 individuals, including 21 patients diagnosed with unilateral condylar hyperplasia (UCH) and 14 controls. UCH was confirmed through clinical examination and SPECT scintigraphy. CBCT imaging was used to analyze condylar morphology and positional differences. Linear and angular measurements, including condylar axial angle (CAA), condylar inclination (CI), joint space dimensions, gonial angle (GA), and ramus height (RH), were recorded. Statistical comparisons were made between hyperplastic, non-hyperplastic, and control condyles.

Results: Hyperplastic condyles exhibited a significantly lower CAA (22.97° ± 8.16) than non-hyperplastic and control condyles (28.42° ± 7.07, p = 0.026). Anterior joint space was notably larger in hyperplastic condyles (3.75 mm ± 1.09, p = 0.001), whereas superior and posterior joint spaces were significantly reduced. Additionally, gonial angle and ramus height were greater in hyperplastic condyles. These findings suggest predominant superoinferior growth rather than mediolateral expansion in hyperplastic condyles.

Conclusion: This study enhances the understanding of morphometric alterations in UCH and challenges traditional perspectives on Type 1B CH. The results highlight the necessity of individualized treatment strategies.

Keywords: Unilateral condylar hyperplasia, temporomandibular joint, condylar growth

OP-076
Gardner Syndrome Associated With Multiple Osteomas, İntestinal Polyposis And Epidermoid Cysts

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Objective: Gardner syndrome is an autosomal dominant phenotypic variant of familial adenomatous polyposis. Gardner syndrome often includes the presence of multiple polyps in the colon and tumors outside the colon, referred to as extracolonic manifestations. These manifestations encompass intestinal polyposis, desmoid tumors, osteomas, and epidermoid cysts. Patients with Gardner syndrome may exhibit osteomas of the mandible and skull, epidermal cysts, or fibromatosis.

Case: A systemically healthy 17-year-old male patient. The patient applied to our clinic with a complaint of missing teeth. Extraoral examination revealed no swelling or asymmetry. Intraoral and radiological examination revealed that teeth 13, 17, 18, 28, 37, 38, 43 and 48 remained impacted. Additionally, multiple gnathic osteoma-like structures, multiple idiopathic osteosclerosis foci in the mandibular and maxillary regions and many supernumerary teeth were detected. The patient's colorectal scan revealed multiple colorectal polyps and epidermoid cysts in the skull, confirming the preliminary diagnosis of Gardner syndrome.

Conclusion: Patients with Gardner syndrome may exhibit a variety of abnormalities in bone, teeth, and soft tissues. Osteomas usually appear during adolescence and become apparent before intestinal polyps. If left untreated, nearly 100% of colorectal polyps will undergo malignant transformation. Systematic work by dentists is important for early diagnosis and treatment of Gardner syndrome.

Keywords: Adenomatous polyposis, Gardner syndrome, Multiple Osteoma

OP-077
The Treatment of Unicystic Ameloblastoma with Decompression: Two Case Report

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Objective: Although ameloblastomas are mostly benign and slow-growing odontogenic tumors, they can exhibit a locally aggressive behavior. Unicystic ameloblastomas arise from the epithelium of an odontogenic cyst, such as a dentigerous cyst or a keratocyst. There are three types: intraluminal, luminal, and mural. This case report discusses the treatment of two separate patients.

Case 1: A 29-year-old female patient presented to our clinic with a complaint of painless mild swelling in the posterior right mandible. Clinical and radiological examinations were performed. The CBCT image revealed a radiolucent lesion associated with the impacted tooth number 48, showing mild periosteal reaction and extending to the coronoid process. After biopsy, the lesion was diagnosed as unicystic mural type ameloblastoma. The patient underwent decompression for 6 months, followed by enucleation.

Case 2: A 21-year-old male patient presented to our clinic with a complaint of painless, mild swelling in the posterior right mandible. Clinical and radiological examinations were performed. A CBCT (cone-beam computed tomography) scan revealed a radiolucent lesion associated with the impacted tooth number 48, showing mild periosteal reaction. Following biopsy, the lesion was diagnosed as a unicystic mural-type ameloblastoma. The lesion was initially managed with 6 months of decompression, after which enucleation was performed.

Conclusion: Unicystic ameloblastoma is less aggressive than the multicystic type, and therefore enucleation and curettage are typically sufficient for its treatment. However, due to the risk of recurrence, long-term follow-up is necessary. In our cases, we preferred the treatment approach of enucleation following decompression

Keywords: ameloblastoma, decompression

OP-078
Ameloblastoma: Different Treatment Strategies

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Objective: Ameloblastoma is a rare, benign but locally aggressive odontogenic tumor that originates from the epithelial cells involved in tooth development. The surgical approach to treating an ameloblastoma depends on the type, size, location, patient's age and overall health. A series of 4 ameloblastoma patients are presented retrospectively.

Materials-Methods: Case notes of four ameloblastoma cases were retrospectively evaluated. The patients' gender, age, clinical findings, CBCT datas, histopathologic results, surgical approaches, recurrence status, placement of reconstruction plate (RP), follow-up duration and surgical techniques were examined descriptively.

Results: Two male and 2 female patients with an average age of 20 years, were involved. The average follow-up period is 6 months. All patients were fit and well with no drug history. Histopathologic results are: One unicystic ameloblastoma case, 2 acanthomatous ameloblastoma cases (one with BRAF V600E mutation), and 1 peripheral ameloblastoma case. Treatments were extra oral approach for segmental resection and reconstruction with free iliac graft, enucleation and curettage and/or application of cornoy's solution and marginal resection. Recurrence was not detected during the follow up period.

Conclusion: The treatment of ameloblastoma can vary based on clinical, histopathological, and radiographic findings. It is imperative to adapt between enucleation, curettage and resection based on the above criteria as well as the necessity for long follow up periods.

Keywords: Ameloblastoma, enucleation, marginal resection

OP-079
Carcinoma Ex Pleomorphic Adenoma of the Hard Palate: Report of a Case

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Objective: Carcinoma ex pleomorphic adenoma (CEPA) is defined as a epithelial malignancy arising from pleomorphic adenoma. CEPA is an agressive malignancy that commonly develops in a primary or recurrent PA. CEPA is an uncommon neoplasm of the minor salivary gland. It often poses a diagnostic challenge to clinicians and pathologists.

Case: 65-year-old male patient come to our clinic due to an painless mass on the right side of the hard palate which has been for 10 years. The mass had slowly increased in size for the last a year. An excisional biopsy was performed and Histopathological examination of the lesion demonstrated that mucoepidermoid carcinoma in some areas but features of the pleomorphic adenoma in focal areas.

Conclusion:: Due to resemblance of clinical symptoms of Ca ex PA and benign pleomorphic adenoma, it is mandatory for surgeons to keep high degree of clinical alertness, considering the peculiarity of this tumor

Keywords: carcinoma, pleomorphic adenoma, hard palate

OP-080
Decompression of Cysts in Pediatric Patients

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Dentigerous cysts are the most common odontogenic developmental cysts, accounting for 20–24% of jaw cysts. Their etiology is unclear but is linked to impacted teeth, mainly molars and canines. Treatment includes enucleation or marsupialization. Decompression is increasingly preferred as it preserves developing teeth while providing effective results.

This retrospective study reviewed the cases of 250 pediatric patients diagnosed with dentigerous cysts, which were treated with a custom-made appliance at the Marmara University Faculty of Dentistry. The technique, clinical findings, medical history, treatment duration, complications, their solutions, and precautions will be presented with example cases.

Conclusion: Decompression using a custom-made appliance proves to be an effective and safe technique for managing dentigerous cysts in pediatric patients. It provides excellent long-term outcomes while minimizing complications and preserving the affected teeth.

Keywords: Decompression, Dentigerous Cysts, Pediatric Patients

OP-081
Fibro Osseous Lesion's Curettage And Reshaping

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Objective: The fibro-osseous lesions represent a large group of disorders that have many common characteristics including clinical, radiographic and microscopic features. Although most of them are unknown aetiology, some are believed to be neoplastic and others are related to metabolic imbalances. It is not unusual to see these lesions presenting with a large range of radiographic appearances, causing considerable diagnostic confusion owing to their similar histology.

Materials-Methods: 4 patients with FOLs retrospectively evaluated. This group contains 3 female 1 male patient. All of them treated with curettage and we needed reshaping 1 patient who has advenced fibrous displasia. All of the patients pathologicaly diagnosed as FOL's.

Discussion: All patients observed post operatively at least 6 month with radiologic images. We detected new healthy bone formation after curettage in every patient.

Conclusion: FOL's are treatable benign lesions with low progression. With surgical treatment recurrens is unlikely.

Keywords: Fibroosseous lesions' fibrous displasia, Reshaping

OP-082
Management of Odontogenic Keratocyst (OKC): A Case Series

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Objective: Odontogenic keratocyst is an aggressive cyst that has clinical behavior including a high recurrence rate.It is frequently found incidentally and causes delayed symptoms.The treatment of keratocyst in 9 different patients will be described in this case series.

Case: Materials-Methods: Nine keratocyst patients were retrospectively evaluated. The patients' genders, ages, surgical approaches, recurrence status, placement of RP, follow-up duration and surgical techniques were examined numerically and percentage-wise using Excel software.

Results: The age range of the patients was 16-76 years with a mean age of 42.5 years.5 of 9 patients were female and 4 were male.Enucleation and curettage were the most common treatment modalities, and in some cases decompression therapy was used to reduce the size of the lesions. Extraoral approach was applied and RP were placed to 1 patient, while intraoral approach was applied to 8 patients.Recurrence was detected in 4 of 9 patients whose treatment was completed. Follow-up periods varied between 3 months and 10 years.

Conclusion: Odontogenic keratocysts are aggressive and have a high recurrence rate, so treatment should be chosen carefully, and regular clinical and radiographic follow-ups are important. This study examines 9 cases, providing valuable information about the disease's clinical features and treatment.

Keywords: keratocyst, Enucleation, Reconstruction plate

OP-083
The Management Of Recurrent Odontogenıc Keratocyst Associated Wıth The Inferıor Alveolar Nerve

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Objective: Odontogenic keratocyst (OKC) constitutes between 1.8% and 21.5% of odontogenic cysts. In the literature, OKCs are treated using various approaches, ranging from enucleation to radical surgery, with or without chemical agents, depending on the size and location and relation to anatomical structures. However, OKCs have a higher propensity (15%–63%) to recur compared to other odontogenic cysts following surgical removal. The aim of this report is to present a case of a recurrent keratocyst associated with the inferior alveolar nerve, treated with enucleation and chemical debridement.

Case: A 64-year-old male patient was referred to our department with swelling on the right side of the mandible. Radiographic examination revealed a multilocular, well-defined radiolucent lesion with unclear mandibular canal borders. An incisional biopsy diagnosed odontogenic keratocyst, and enucleation was performed a meticulous procedure to avoid nerve damage, followed by chemical debridement with Carnoy's solution. Recurrence was noted at the 1-year follow-up. In the second surgery, the cyst epithelium was defined fused with the inferior alveolar nerve. The nerve was sectioned, and the epithelium was separated for complete cyst removal. Direct epineural anastomosis was performed between distal and proximal tips of nerve. After that mechanic and chemical depridement was applied. The postoperative period was uneventful with significant nerve recovery at 6 months.

Conclusion: Consequently, this case report highlights the importance of mechanical and chemical debridement in the still uncertain treatment of odontogenic keratocysts.

Keywords: carnoy's solution, odontogenic kerotocyst, peripheral osteotomy

OP-084
Central Giant Cell Granuloma in the Anterior Mandibular Region: Treatment and Rehabilitation

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Objective: Central giant cell granuloma (CGCG) is a benign, proliferative, and aggressively destructive osteolytic lesion of osteoclastic origin with an unknown etiology. It is most commonly found in the mandible, anterior to the first molar, in patients under the age of 30, with a clear female predominance. Small, non-aggressive cases are primarily treated with curettage. However, alternative treatments such as intralesional calcitonin, interferons, bisphosphonates, and corticosteroids have been explored. Conversely, severe cases may require surgical intervention, including excisional biopsy, enucleation with curettage, or resection.

Case: A 21-year-old female patient presented to our clinic with a complaint of swelling in the anterior mandibular region. Radiographically, the lesion appeared as a well-defined, multilocular radiolucency with tooth displacement. Serum calcium, phosphorus, and parathyroid hormone levels were within normal limits. After an incisional biopsy, the patient was diagnosed with central giant cell granuloma, and surgical enucleation with peripheral ostectomy was planned under general anesthesia. The lesion was resected intraorally. The bone cavity formed after the operation was filled with an alloplastic block and particulate grafts. The postoperative 6-month follow-up period was uneventful. After complete bone healing, prosthetic rehabilitation with implants was performed

Conclusion: Surgical enucleation is the preferred treatment for CGCG. This case highlights that CGCG can be effectively managed without damaging the surrounding tissues, ensuring both functional and aesthetic rehabilitation.

Keywords: Central giant cell granuloma, benign, enucleation

OP-086
Marked Regression of a Central Giant Cell Granuloma in the Anterior Mandible Following Denosumab Therapy: An Imaging Correlation Supported by Case Analysis

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Objective: Central Giant Cell Granuloma (CGCG) represents a rare, benign, locally aggressive osteolytic lesion within the jaw, predominantly affecting pediatric and young adult populations. Although curettage or surgical resection is traditionally regarded as the standard therapeutic approach, recurrence rates ranging from 20% to 49% have been documented, particularly in aggressive variants. Recent investigative efforts have elucidated the significance of the RANK/RANKL signaling pathway in the pathogenesis of CGCG, thereby justifying the exploration of targeted therapeutic modalities. One of them is denosumab, a monoclonal antibody that effectively inhibits the activity of osteoclast-like giant cells.

Case: We present a clinical case involving a 15-year-old male patient who exhibited a painless mandible enlargement. Initial three-dimensional contrast-enhanced computed tomography (CT) imaging revealed a multilocular, expansile radiolucent lesion localized in the anterior mandible, consistent with the diagnosis of CGCG. Histopathological verification was attained, and in light of the lesion's size and the potential morbidity associated with surgical intervention, denosumab therapy was commenced, administering 120 mg subcutaneously monthly for a duration of six months. Subsequent CT imaging at the six-month mark exhibited a significant diminution in the lesion volume, accompanied by ossification of the impacted area and cortical integrity. No adverse effects or functional deficits were observed throughout the treatment period.

Conclusion: This case underscores the accumulating evidence that denosumab can facilitate substantial regression of CGCG, particularly in instances where surgical procedures may precipitate functional or aesthetic complications. Additional research is warranted to investigate long-term recurrence rates and refine the optimal treatment duration within pediatric populations.

Keywords: Central Giant Cell Granuloma, Pediatric Maxillofacial Lesions, Denosumab

OP-087
Odontoma Associated with an Impacted Third Molar in the Maxillary Tuberosity Region: A Case Report

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Objective: Odontomas represent the most prevalent benign odontogenic tumors and are classified as hamartomas rather than true neoplasms. These lesions are composed of dental tissues, including enamel, dentin, cementum, and pulp, which exhibit varying degrees of structural organization. Based on their morphological and radiographic characteristics, odontomas are subdivided into two distinct types: compound odontomas, which consist of multiple small tooth-like structures, and complex odontomas, characterized by an irregular mass where dentin, enamel, and cementum are fused without resembling a typical tooth structure. Clinically, odontomas are often asymptomatic and are primarily detected incidentally during routine radiographic evaluations or in association with disturbances in tooth eruption.

Case: A 17-year-old female patient with no history of systemic disease presented to our clinic with complaints of pain in the maxillary posterior region. Clinical and radiographic examinations revealed an unerupted maxillar third molar (tooth #28) along with a well-defined radiopaque lesion composed of multiple tooth-like structures within the maxillary tuberosity region. Odontoma fragments were enucleated and impacted tooth was subsequently extracted. The surgical site was primarily closed to facilitate optimal healing. Histopathological analysis confirmed the diagnosis of a compound odontoma, demonstrating an irregular arrangement of enamel, dentin, cementum, and pulp-like tissues. The patient was monitored postoperatively, and the healing process was uneventful, with no signs of recurrence or complications.

Conclusion: Complex odontomas are infrequently observed to erupt into the oral cavity and are predominantly associated with impacted teeth. Consequently, timely diagnosis and appropriate surgical intervention are imperative to prevent potential complications and to ensure favorable prognostic outcomes.

Keywords: odontoma, impacted third molar, hamartom

OP-088
The Regenerative Effects of Systemic Melatonin Treatment for Facial Nerve Crush Injury

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Objective: Melatonin, primarily secreted by the pineal gland, is a neuroendocrine hormone with multiple antioxidant and anti-apoptotic effects on neural tissues. The aim of the present study was to assess the regenerative potential of systemic melatonin treatment after facial nerve crush injury.

Materials-Methods: Following the facial nerve injuries, 24 Sprague-Dawley rats were randomly divided into three groups as follows: (1) 20mg/kg melatonin, (2) 5mg/kg melatonin and (3) control. Rats were injected intraperitoneally daily for 28 days according to the study groups. Functional evaluations such as blinking reflex and whisking amplitude were evaluated weekly. At the end of the 28 days treatment period, electromyography (EMG) of facial nerves were performed and then buccal branches of facial nerves were harvested for histomorphometric analysis.

Results: Whisking amplitude was significantly higher in 5mg/kg and 20 mg/kg melatonin groups compared to the control group. Both treatment groups presented higher EMG amplitude and shorter duration values than the control group. Histomorphometric analysis revealed that the percentage of axons with optimum g-ratio was significantly lower in the control group. The mean axonal density was significantly higher in both melatonin treatment groups.

Conclusion: Both supraphysiological doses of systemic melatonin treatment enhanced regeneration after facial nerve crush injury.

Keywords: facial nerve injuries; melatonin; nerve crush

OP-089
Comparison of the Effects of Hyaluronic acid and Platelet-Rich Fibrin on Wound Healing in Rats

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Objective: In this study, we compared the effects of local application of platelet-rich fibrin (PRF) and hyaluronic acid (HA) on wound healing in rats.

Materials-Methods: A total of 30 adult male Wistar Albino rats were used in this study. Twenty-four rats were randomly segregated into three groups, namely PRF, HA, and the control group. Six rats were used to obtain PRF. Defects in the frontal region of the rats were created using a trephine burr with an outer diameter of 8 mm. HA gel was applied to the defects in the HA group, while PRF was placed in the defects of the PRF group. The defects in the control group were left empty. The rats were sacrificed 14 days after the procedure. The calvarial bones and surrounding soft tissues of the rats were analyzed histopathologically and immunohistochemically.

Results: In the PRF group, the increases in fibrous connective tissue (p=0.602), osteoblast proliferation (p=0.453), osteoid matrix formation (p=0.380), and osteoid matrix calcification (p=0.084) were significantly higher compared to the HA and control groups. Additionally, osteoprotegerin levels were markedly elevated in the PRF group compared to the control and HA groups (p=0.220). Moreover, a higher proportion of samples in the PRF group exhibited elevated RANKL levels compared to the control and HA groups (p=0.183).

Conclusion: PRF and HA have a significant impact on bone and soft tissue healing. However, further studies are required to comprehensively evaluate their relationship with wound healing.

Keywords: Hyaluronic acid, Platelet-rich fibrin, Wound healing

OP-090
Efficacy of Injectable Platelet-Rich Fibrin and Corticosteroid Injections in Temporomandibular Joint Disorders

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Objective: This study aims to evaluate and compare the effects of a single-session intra-articular injection of corticosteroid or injectable platelet-rich fibrin (I-PRF) in patients with temporomandibular joint disorders.

Materials-Methods: This study analyzed the data of patients with temporomandibular joint derangement who received intra-articular corticosteroid or i-PRF injections at Başkent University. Only those with complete follow-ups at 1 week, 1 month, and 3 months were included. Parameters assessed were pain(VAS), maximum mouth opening, lateral jaw movement, joint sounds, and functional improvements.

Results: A total of 30 patients (15 per group) were included. Pain intensity(VAS) decreased significantly in both groups, with a greater reduction in the corticosteroid group at the 1st week($p = 0.0009$) and 1st month($p = 0.0004$), but no significant difference at the 3rd month($p = 0.107$). Mouth opening improved significantly with corticosteroid at the 1st week($p = 0.0002$), with no difference at the 3rd month($p = 0.0020$). Lateral jaw movement showed no significant difference at the 3rd month($p = 0.1598$). Joint sounds and locking improved with corticosteroid at the 1st week($p = 0.0159$), but no difference remained at the 3rd month.

Conclusion: Corticosteroid injections provide rapid pain relief and functional improvements, while I-PRF demonstrates progressive long-term benefits, suggesting regenerative potential. Corticosteroid may be preferred for acute symptom relief, whereas I-PRF supports long-term tissue healing. By the third month, both treatments showed similar efficacy for all parameters. Further studies with larger patient groups and longer follow-ups are recommended to assess I-PRF's long-term benefits in temporomandibular joint disorder management.

Keywords: Intra-articular Injection, Temporomandibular Disorders

OP-091
Alternative To Autogenous Graft: Dentin Graft Vs Concentrated Growth Factor

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Objective: Graft materials are commonly used in oral and maxillofacial surgery. Although autogenous graft is the gold standard, it has some disadvantages. Therefore, studies are continuing for new graft materials. Demineralised dentin graft and concentrated growth factor(CGF) are materials with osteoinduction properties thanks to the growth factors contained in them. The aim of our study was to evaluate the success of dentin graft against autogenous graft and the effect of addition of concentrated growth factor to graft materials on bone healing.

Materials-Methods: A total of 40 rats were used in our study and a critical sized defect was created in the left femur of all rats. The rats were divided equally into 4 groups. In the 1st group, only autogenous, in the 2nd group autogenous + cgf, in the 3rd group dentin, in the 4th group dentin + cgf were applied. The animals were sacrificed at the end of 28th day and the specimens were analysed.

Results: When the total healing area, defect closure rate, new bone area, residual material area and osteoblast counts were analysed statistically, significant results were obtained between all groups. The highest values in all parameters were found in the dentin + CGF group.

Conclusion: Dentin graft was more successful than autogenous block graft in all parameters evaluated. The addition of CGF increased the healing success of the groups.

Keywords: concentrated growth factor(CGF), dentin graft, autogenous graft

OP-092
A Pilot Study on 3D Evaluation of Condylar Changes and Surgical Accuracy in Mandibular Fixation: Patient-Specific vs. Conventional Osteosynthesis Plates

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Objective: This study aims to compare the deviations between preoperative virtual orthognathic surgical planning and postoperative outcomes, as well as condylar changes in patients undergoing fixation with patient-specific versus conventional osteosynthesis plates.

Materials-Methods: This prospective randomized clinical study included patients who underwent double-jaw orthognathic surgery with fixation using either patient-specific or conventional osteosynthesis plates. Preoperative virtual surgical planning data were generated for all patients, and postoperative computed tomography scans were obtained on the 10th day following surgery. 3D reconstructions of the jaws were performed to measure condylar changes in three dimensions. The deviation of cephalometric points between planned and actual postoperative outcomes was assessed.

Results: Nineteen patients were included in the study (7 females, 12 males; mean age: 24.7 ± 6.9 years). In conventional plate group, maxillary, mandibular, and overall deviations were 2.48 ± 1.19, 2.55±1.05, and 2.51±1.02 mm, respectively. In patient-specific plate group, maxillary, mandibular, and overall deviations were 1.62±0.49, 1.66±0.56, and 1.60±0.49 mm, respectively. There was a significant difference between the two groups in terms of maxillary (p=0.35), mandibular (p=0.43), and overall (p=0.22) mean deviations. In the evaluation of condylar axis changes, a significant difference between the groups was detected only for the right sagittal condylar angle (p=0.028).

Conclusion: Preliminary findings indicate that patient-specific osteosynthesis plates provide greater accuracy in orthognathic surgery compared to conventional plates. Additionally, results highlighted the potential influence of fixation methods on condylar positioning. Further studies with larger sample sizes are needed to validate these results and explore their long-term clinical implications.

Keywords: Orthognatic Surgery, Patient-Specific Osteosynthesis Plates, Accuracy

OP-093
Radiological Evaluation of Bone Gain in Maxillary Horizontal Augmentation Using Two Different Graft Materials: A Retrospective Study

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Objective: This retrospective study evaluates the effect of two different graft materials—demineralized allograft and xenograft—applied with the sticky bone technique in maxillary horizontal augmentation. It also examines the success of dental implants placed in augmented areas after one year of follow-up.

Materials-Methods: Fourteen patients with maxillary atrophy who underwent horizontal bone augmentation using allograft or xenograft with the sticky bone technique were included. Three-time point CBCT scans were analyzed to measure bone thickness at different levels of the alveolar crest. Statistical analysis was performed using IBM SPSS 28.0.

Results: The mean bone gain was 4.1 mm, with an average resorption of 0.5 mm at one-year follow-up. The total bone gain rate was 87.8%, with allografts achieving 82.8% and xenografts 90%. Xenografts provided significantly higher bone gain ($p<0.05$). Greater bone gain was observed in deeper alveolar ridge points compared to the crestal region, and in thin crests compared to thick ones.

Conclusion: The sticky bone technique effectively facilitated the application of both xenograft and allograft materials, achieving sufficient horizontal bone gain for implant placement. Implant survival at one-year follow-up was 98.4%, with minimal surgical complications. Further long-term randomized controlled studies are necessary to assess bone regeneration quality.

Keywords: guided bone regeneration, maxillary horizontal augmentation, sticky bone matrix

OP-094
Comparison of Temporomandibular Disorder Prevalence Following the Extraction of Bone- and Mucosa-Retained Impacted Mandibular Third Molars

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Objective: Temporomandibular disorders (TMD) may develop following the extraction of impacted mandibular third molars. However, there is insufficient evidence regarding the influence of the type of impaction—bone-retained or mucosa-retained—on the risk of TMD development. This study aimed to compare the prevalence of TMD between bone-retained and mucosa-retained impacted mandibular third molars following their extraction.

Materials-Methods: This retrospective study included patients who underwent the extraction of a single impacted mandibular third molar at Hacettepe University, Faculty of Dentistry between January 2018 and March 2025. Patients were categorized into two groups based on the type of impaction: bone-retained (Group I) and mucosa-retained (Group II). Temporomandibular disorders were assessed using the Fonseca Anamnestic Index. The normality of data distribution was tested using the Shapiro-Wilk test, which indicated a non-normal distribution. Therefore, the Mann-Whitney U test was used for intergroup comparisons.

Results: A total of 200 patients (Group I: 100 patients, Group II: 100 patients) with 200 impacted teeth (Group I: 100 teeth, Group II: 100 teeth) were enrolled in the study. The mean TMD score was significantly higher in the bone-retained group (25.2 ± 21.19) compared to the mucosa-retained group (18.1 ± 16.92) ($p=0.015$).

Conclusion: The findings suggest that the risk of developing TMD is higher following the extraction of bone-retained impacted mandibular third molars compared to mucosa-retained ones. This potential risk factor should be considered during the surgical planning of patients, particularly those with pre-existing TMD, and when informing them about potential postoperative outcomes.

Keywords: bone retention, impacted third molar, mucosa retention

OP-095
Temporomandibular Joint Disorders in Women Over 45: A Retrospective Analysis of Treatments

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Objective: This study aims to determine the proportion of female patients over the age of 45 who presented to our clinic with temporomandibular joint (TMJ) complaints and to assess the distribution of treatment modalities used. The study explores a possible relationship between menopause and TMJ disorders.

Materials-Methods: The records of female patients aged 45 and above who visited our clinic with TMJ complaints since 2011 were retrospectively analyzed. Demographic data and treatment modalities, including Botox injections, intra-articular injections/arthrocentesis, and conservative treatments, were evaluated. The frequency of each treatment modality was compared to the general patient population.

Results: Among 1,028 patients who presented to our clinic with TMJ disorders and muscle complaints since 2011, 365 were aged 45 and above, with 306 being female. This age group constituted the largest portion of the TMJ patient population. However, the distribution of treatment modalities in this age group did not significantly differ from that of the general TMJ patient population.

Conclusion: In female patients over 45 years old with TMJ complaints, hormonal changes related to menopause may have a potential impact on disease presentation and treatment preferences. Further prospective studies incorporating hormonal analyses are needed to clarify the potential effects of menopause on TMJ disorders. Given that this patient group represents the largest proportion of TMJ cases, special attention should be given to their diagnosis, treatment strategies, and management to improve clinical outcomes.

Keywords: Temporomandibular joint disorder, Botox, Arthrocentesis

OP-096
Intracerebral Hemorrhage After Mandibular Fracture Surgery Under General Anesthesia: A Case Report

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Objective: Mandibular fractures are commonly treated surgically, but patients with underlying comorbidities, such as hypertension, may have an increased risk of complications. This case highlights a rare but serious postoperative complication—intracerebral hemorrhage—following mandibular fracture repair under general anesthesia.

Case: A 51-year-old male patient with a history of chronic hypertension presented with a mandibular fracture due to physical assault. Initial brain CT at the emergency department showed no abnormalities. He was referred for surgical repair, and preoperative cardiology evaluation cleared him for surgery. The procedure was performed under general anesthesia, with perioperative blood pressure levels around 150/90 mmHg. Postoperatively, the patient was monitored for two days and discharged without complications.

Three days after discharge, he developed sudden confusion and was taken to the emergency department, where a brain CT revealed an intracerebral hemorrhage. The patient was intubated and admitted to the ICU. He responded well to medical treatment, was extubated on the 5th day, and transferred to the general ward on the 7th day. After two more days of monitoring, he was discharged with a GCS of 15 and no neurological deficits.

Conclusion: This case underscores the importance of careful perioperative blood pressure management and close postoperative monitoring in hypertensive patients undergoing surgical procedures. Postoperative intracerebral hemorrhage, though rare, can be life-threatening, highlighting the need for vigilance in high-risk individuals.

Keywords: Hypertension, Intracerebral Hemorrhage, Mandibular fracture

OP-097
Use of Reconstruction Plate After Keratocyst Enucleation: 7-Year Follow-Up Results

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Objective: Odontogenic keratocyst (OKC) is the third most common cyst in the jawbones, drawing the attention of clinicians and researchers due to its clinical behavior and histological characteristics. It is a locally aggressive cyst with a high recurrence risk. Due to its thin structure, complete eradication is challenging. Various treatment methods have been proposed for OKC; however, the optimal treatment approach remains unclear. This study presents the long-term, 7-year follow-up results of a case in which a reconstruction plate was used to maintain defect stability after enucleation.

Case: A 52-year-old systemically healthy male patient presented to our clinic with recurrent swelling, infection in the right mandible. CBCT and panoramic radiographs revealed a radiolucent area in the right mandible. Under general anesthesia, a wide-margin enucleation of the OKC was performed. A titanium reconstruction plate was applied to the defect site to maintain mandibular stability and support functional healing. The patient was regularly monitored both clinically and radiologically in the postoperative period, and no signs of recurrence were detected over seven years. Mandibular function and aesthetic integrity were preserved, and the patient reported no complaints.

Conclusion: Defect stability after enucleation is crucial in the treatment of OKC. The treatment approach in this case was meticulously planned, considering various patient- and lesion-specific factors. These factors included the patient's age, adherence to the selected treatment, and lesion's boundaries. Over a 7-year period, despite the considerable size of the OKC, the absence of recurrence highlights the accuracy of a patient- and lesion-centered treatment decision.

Keywords: Enucleation, Odontogenic Keratocyst, Reconstruction Plate

OP-098
Surgical Approach in Temporomandibular Joint Disorders: A Case Series

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Objective: Diseases and disorders of the temporomandibular joint (TMJ) and its associated structures are very commonly encountered by the oral and maxillofacial surgeon. Surgical treatment of temporomandibular joint problems is a challenge for surgeons in some cases.In this case series, osteochondroma discectomy and eminectomy cases will be presented.

Case: A 31- year- old male patient complaining of a face asymmetry and malocclusion. The total excision of left mandibular condyle neoplasia was performed through an extended temporal-preauricular approach with the preservation of mandibular condyle. The osteochondroma was carefully excised from the condyle.

A 59-year-old edentulous female patient was admitted to our hospital with the complaint of longterm anterior dislocation of temporamandibular joint. In the patient's medical history she complained of an inability to close her mouth for sixteen month. Therefore bilateral pre auricular approach to the TMJs were performed to make eminectomy and eminoplasty.

A 42-year-old woman was admitted to our hospital with complaints of painful popping in the left temporamandibular joint. Arthroscopy imaging revealed perforation of the left temporamandilar joint disc. Through a preauricular approach, the patient's left temporamandibular joint disc was removed (discectomy) and replaced with fat tissue from the abdomen.

Conclusion: It is critical for the surgeon to choose the best surgical approach in treating the temporomandibular joint diseases.

Keywords: osteochondroma, eminectomy, discectomy

OP-100
Medication-related osteonecrosis with total alloplastic replacement of the mandible: A case report

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Objective: Medication-related osteonecrosis of the jaw is a difficult-to-manage disease that significantly lowers quality of life. Osteonecrosis treatment consists of a few stages depending on the severity of the disease. Severe cases (stage 2 and 3 by medication-related osteonecrosis of the jaw classification) are treated surgically. For large jaw defects there are a few reconstruction methods, such as autogenous bone transplantation or alloplastic prostheses replacing missing parts. More severe cases require complete jaw reconstruction. Our primary goal is to provide a brief review of a recent case involving complete mandibular reconstruction.

Case: A patient with renal cell carcinoma and osteonecrosis had a large-scale sequestration in the mandible and his whole mandible was replaced with an alloplastic prosthesis. Postoperatively the patient felt little to no pain and the mouth opening amplitude was viewed as sufficient which helped improve the patient's quality of life significantly. 3 months after the operation, a second surgery was performed for the closure of the extraoral soft tissue defect. In the second postoperative period, no more complications occurred, and a follow-up examination showed favorable clinical outcomes.

Conclusion: There are a few recorded cases of total alloplastic replacements of the mandible and no cases documented in literature regarding treatment for osteonecrosis of the jaw. This case shows good short-term post-operative function, aesthetic outcome, and an improved quality of life for the patient. However, more research is needed and more data must be collected for jaw osteonecrosis cases to prove the positive outcome of such procedures.

Keywords: medication-related osteonecrosis, total alloplastic replacement of the mandible, temporomandibular joint

OP-101
Reconstruction of Partial Mandibular Resection with Iliak Crest for Recurrent Odontogenic Myxoma

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Objective: This presentation includes a case of odontogenic myxoma that recurred despite surgery. The left posterior mandible region with odontogenic myxoma has been operated twice before but has recurred. Therefore,we aimed to resect this region of the mandibular bone and repair the resected section with block bone from the iliac crest.

Case: A 43 Years old systemically healthy female patient.Nazal intubation was performed under general anesthesia.

The part of the mandible to be resected was determined with a 3D model obtained by computerized tomography.The resection area was measured as 6 centimeters.Extraoral incision was made 3 centimeters away from the mandibular base and the mandibular base was reached with blunt dissection.Inraoral soft tissues were dissected with intraoral saccular incision.The diseased bone section was resected with a surgical saw and a 6-centimeter block bone taken from the anterior iliac bone was fixed to the resection area with a reconstruction plate previously bent on the model and a mini plate. A mini vac drain was placed in the operation area to control bleeding and edema.

Conclusion: The mini vac drain was removed on the 4th postoperative day, the surgical areas were dressed for 1 week and the mouth was washed with saline solution every day. Our patient received hyperbaric oxygen therapy for 4 weeks after surgery,which we planned preoperatively. We are planing to replace the teeth that the patient lost in the resected area by making implants on the block graft taken from the iliac bone after 6 months.

Keywords: *iliac crest, resection, tumor*

OP-102
Surgical Reconstruction of Mandibular Fractures Using the Champy Technique: A Literature Review and Case Series

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Introduction: Mandibular fractures are a frequent outcome of facial trauma. The Champy technique is a proven and reliable method for reconstructing mandibular fractures, varying according to fracture location and configuration. This study presents the application of open fixations based on the Champy technique and the recovery processes of the patients involved.

Case Presentations: Four male patients, all systemically healthy, presented with mandibular fractures following trauma:

•Case 1: A 19-year-old male with a single fracture in the right mandibular angle, fixed with a single titanium mini-plate.

•Case 2: A 44-year-old male with fractures in the symphysis and left mandibular angle, fixed with two mini-plates in the symphysis and one in the angle.

•Case 3: A 32-year-old male with a single fracture in the right mandibular body, fixed with two mini-plates.

•Case 4: A 36-year-old male with a fracture in the symphysis, fixed with two mini-plates. Three patients were followed for 3 months, and one for 2 years.

Conclusion: All patients showed satisfactory healing after surgical intervention. The Champy technique is considered an effective and safe approach for mandibular fracture treatment, yielding positive outcomes when appropriately selected patients are treated.

Keywords: Champy Technique, Mandibular Fractures, Surgical Reconstruction

OP-103
Mandibular Reconstruction After Gunshot Wounds: A Case Report

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Objective: Gunshot wounds to the face and jaws may cause gross destruction of tissues. In cases where a major portion of the alveolar ridge has been lost, bone grafting to restore ridge height and contour is employ. Most authors agree that for grafting large mandibular defects resulting from loss of substance secondary to trauma, autogenous bone is the preferred graft.

Case: A 43-year-old male patient who applied to our department with the complaint of continuity defects of his mandible and functional insufficiency will be presented in this case report. The patient, who had a large defect in his mandible due to a gunshot wound 10 years ago, had undergone iliac bone grafting twice at an external center. The iliac graft became infected, so the defect area was resected. A block graft including the coronoid process along the ramus was prepared for the repair of the large residual defect in the patient's mandibular region. Since the continuity of the mandible was disrupted, the autogenous block graft prepared was fixed to the area after the reconstruction plate was placed in the area.

Conclusion: Continuity defects of the mandible are common residual defects following gunshot wounds to the mouth. These defects occur because of non-union of severe fractures or because of traumatic avulsion of portions of the bone. The iliac crest is the most desirable donor site. The advantages of intraoral block greft method are that there is no second surgical area, it is easily accessible and the risk of infection is low.

Keywords: gunshot wounds, maxillofacial deformities, reconstruction

OP-104
Zygoma Fractures and Treatment Methods

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Objective: The zygomatic bone is a bone that resembles a diamond shape and is located under the eye socket and in the widest area of the cheek. It forms the zygoma together with the zygomatic arch located on the lateral side of the face. Fractures may occur in the zygomatic bone and arch as a result of trauma. In such cases, surgical intervention or closed treatment is applied.

Case:

Zygoma Fracture Types:

Isolated zygoma fracture

Zygomatico-maxillary fracture

Zygomatico-orbital fracture

Tripod fracture (temporal-maxilla-frontal)

Tetrapod fracture (temporal-frontal-sphenoid-maxilla)

Zygoma Fracture Treatment Approaches:

Temporal fossa (gillies) approach

Supraorbital approach

Inferior rim approach

Intraoral (keen) approach

Transconjunctival approach

Transcutaneous approach

Subcilliary approach

Coronal approach

Surgical endoscopic approach

Conclusion: Case 1

A 31 years old male patient who applied to our clinic with complaints of pain on the right side of the face and swelling in the right eye due to a traffic accident was examined clinically and radiologically. As a result of the examination, a tripod fracture was detected in the right zygoma. Open reduction via subciliary approach under general anesthesia was planned for the patient.

Case 2

A 45 years old male patient who applied to our clinic with a complaint of pain on the left side of his face after falling down the stairs was examined clinically and radiologically. As a result of the examination, a displaced fracture was detected in the left zygomatic arch. Closed reduction with a Gillies approach was planned for the patient under general anesthesia.

Keywords: fracture, treatment, zygoma

POSTER PRESENTATIONS

PP-001
Effect Of The Guide Socket On The Primary Stability Of The Mushroom Head Miniscrew

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Objective: Studies evaluating the effect of pilot drilling to create a guide socket on the primary stability of miniscrews are limited in the literature. The aim of this study was to evaluate the effect of creating a guide socket during miniscrew insertion on the primary stability of the miniscrew in an in vitro polyurethane cortical bone model.

Materials-Methods: This study was conducted at the Department of Oral and Maxillofacial Surgery, Faculty of Dentistry, Van Yüzüncü Yıl University. Polyurethane blocks with a density of 60 pcf were used to model cortical bone in vitro. Self-drilling titanium mini-screws with a 1.8 x 8 mm mushroom head were used. In the study groups, a 1mm diameter surgical fissure drill was used to create the guide sockets. Insertion and removal torques were measured to assess primary stability.

Results: A total of 45 miniscrews were included in the study in the no guide, 2mm guide and 4mm guide groups. The insertion torque values for the miniscrews in the 4mm guide socket group were significantly lower than the other groups, and the removal torque values for the miniscrews in the 2mm guide socket group were significantly higher than the other groups ($p<0.01$).

Conclusion: This study demonstrated that the primary stability of the mushroom head miniscrew was affected by the creation of a guide socket.

Keywords: guide socket, miniscrew, primary stability

PP-002
A Pilot Investigation of Melatonin's Effect on Pain, Edema, and Mouth Opening After Impacted Third Molar Surgery

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Objective: Postoperative pain, edema, and trismus are common complications following impacted third molar surgery. Melatonin is known for its antioxidant and anti-inflammatory properties. This study aims to evaluate the effects of melatonin on pain, edema, and mouth opening in the postoperative period.

Materials-Methods: This prospective, randomized controlled study included 14 systemically healthy patients requiring impacted third molar surgery. Patients were divided into two groups: the experimental group received 3 mg of melatonin daily for 7 days, starting one day before surgery, while the control group received no additional treatment. Postoperative pain (VAS), edema (distances between tragus-labial commissura), and maximum interincisal distance were evaluated preoperatively and on postoperative days 3 and 7. The OHIP questionnaire was used to evaluate changes in quality of life.

Results: Eleven female and three male patients were included in the study (mean age 22.7±2.2). The mean pain score changes between days 0-3 were 4.14±0.91 (control) and -0.43±0.79 (melatonin), and between days 0-7 were 1.14±0.34 (control) and 2.0±0.48 (melatonin). There was no significant difference between the groups in terms of pain (p=0.165 and 0.165), edema (p=0.209 and 0.710), and maximum mouth opening (p=0.805 and 0.902) changes between days 0-3 and 0-7. Similarly, there was no difference in OHIP scores between the groups (p>0.05).

Conclusion: The findings of this pilot study suggest that its use at the given dosage and duration does not provide a clinically significant benefit in managing postoperative symptoms. Further studies with larger sample sizes are needed to better evaluate its potential effects.

Keywords: Melatonin, Post Operative Pain, Third Molar Surgery

PP-003]

Success Rate of Dental Implants Placed in Autogenous Bone Graft Regenerated Areas and Pristine Bone: 10 year follow-up

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Objective: This study aims to evaluate the long-term success and survival rates of dental implants placed in pristine bone (PB) compared to those placed in augmented sites with autogenous bone grafting (ABA) over a 10-year follow-up period.

Materials-Methods: A retrospective study was conducted on 144 patients treated between 2014 and 2024. Patients were divided into two groups: implants placed in PB and those placed in ABA sites. Clinical parameters, including pain, mobility, exudation, and peri-implant bone loss, were assessed. Statistical analysis was performed using chi-square and Mann-Whitney U tests.

Results: The cumulative implant success rate at 10 years was 90.2% for the ABA group and 95.6% for the PB group ($p=0.182$). The mean peri-implant bone loss was significantly higher in the ABA group (1.5 mm) compared to the PB group (1.4 mm, $p=0.014$). Among ABA subgroups, implants in vertically augmented sites had significantly lower success rates and greater bone loss compared to horizontally augmented sites ($p<0.001$).

Conclusion: While implants placed in augmented bone exhibited slightly lower success rates and increased bone loss compared to those in pristine bone, the results remain within clinically acceptable limits. Further clinical studies is needed to compare long term results of implants placed in augmented jaws with standardized parameters.

Keywords: Dental implants, bone augmentation, implant success rate

PP-004
Biomechanical Evaluation of Iliac and Fibula Grafts for Mandibular Reconstruction: A Finite Element Analysis Study

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Objective: This study aimed to compare the biomechanical performance of iliac crest and fibula grafts in mandibular reconstruction by analyzing stress distribution around implants and prosthetic components under functional loading conditions.

Materials-Methods: Three finite element models were created: a healthy mandible, a mandible reconstructed with an iliac crest graft, and one with a fibula graft. Segmental resection from the premolar region to the mandibular angle was simulated. Six implants (Ø4.1 mm × 8 mm) were placed bilaterally, supporting a bar-retained prosthesis. Material properties were defined as linear and isotropic. Three vertical loading conditions (incisor, premolar, molar) were applied with 150 N force. Stress distribution was evaluated using von Mises criteria.

Results: Both grafted models showed higher stress concentrations compared to the healthy mandible, with the fibula graft exhibiting the highest stresses, especially under molar loading. The fibula's limited cross-section and tubular structure contributed to its inferior biomechanical behavior. The iliac crest graft demonstrated better mechanical performance due to its thicker cortical bone and broader anatomy. Notably, stress accumulation was observed at graft-native bone interfaces, indicating potential risk zones for mechanical failure.

Conclusion: Graft material significantly affects biomechanical outcomes in mandibular reconstruction. Iliac crest grafts provide superior mechanical stability, particularly in posterior regions subjected to high masticatory forces. Fibula grafts, despite surgical advantages, may pose biomechanical limitations. Careful graft selection and prosthetic design are essential to improve the long-term success of implant-supported rehabilitation in reconstructed mandibles.

Keywords: Dental Implants, Finite Element Analysis, Mandibular Reconstruction

PP-005
A Rare Complication Of Tooth Extraction: A Case Report

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Objective: Accidental displacement of maxillary canine teeth or their roots into adjacent anatomical cavities, especially the nasolabial sulcus region, during extraction is a rare but important complication.Displacements often occur as a result of excessive force, inadequate clinical and radiographic examination/evaluation, improper surgical technique, and/or the unique anatomic characteristics of the patient. The presenting signs and symptoms of a misplaced root in a patient depend on its size, position, and the presence of infection.

Case: A 43-year-old systemically healthy female patient was referred to us from an external center for a fistula on the lateral side of her nose. As a result of the examination in the clinic, it was learned that a tooth was extracted from the relevant area 4 years ago and she had a fistula on the lateral side of her nose for the last 6 months.. Radiologic examination revealed tooth number 23 located close to the infraorbital nerve in the nasolabial sulcus region. Surgical operation was planned and the related root was removed and the area was sutured primerally.

Conclusion: Accidental displacement of canine teeth or root fragments into healthy anatomical structures is an unusual but possible complication. Often, efforts to remove the fragment without adequate adaptation and the necessary surgical systems can lead to deep displacement of the tooth or root fragments. Therefore, during tooth extraction, tooth extraction rules should be followed and information about complications should be provided and patients should be referred to the relevant departments when necessary.

Keywords: Tooth extraction, Complications of canine tooth surgery

PP-006
Diffuse Residual Cyst: A Case Report

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Objective: Residual cysts are relatively rare inflammatory cysts of the jaws. They are essentially radicular cysts without the presence of the offending dentition. These lesions have the ability to destroy bone within the jaws without any symptoms. Moreover, they can mimic more aggressive cysts and tumours on radiographs.

Case: A 52-year-old male patient applied to our clinic for prosthetic restoration. The examinations revealed that the right maxillary canine tooth was impacted and a diffuse cystic tissue was detected in the neighbouring tooth areas numbered 21-22. In the anamnesis, the patient stated that he had his teeth numbered 21 and 22 extracted 48 months ago. Aspiration biopsy was performed and straw coloured cystic fluid content was aspirated. The patient was scheduled for operation. Teeth 14, 23, impacted tooth 13 and diffuse cystic epithelium in the maxilla were enucleated. The content was sent to pathology for examination with 10% formol solution and diagnosed as residual.

Conclusion: Residuel cysts usually go unnoticed and rarely exceed the palpable dimension. This case illustrates the successful management of a large residuel cyst with enucleation.

Keywords: Residual Cyst, Odontogenic Cyst

PP-007
Nasopalatine Duct Cyst: A Case Report

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Objective: The nasopalatine duct cyst is the most common non-odontogenic developmental cysts. Nasopalatine duct cyst also termed as incisive canal cyst, arises from embryologic remnants of nasopalatine duct. Most of these cysts develop in the midline of anterior maxilla near the incisive foramen.

Case: A 56-year-old male patient came to our clinic with the complaint of salty taste in his mouth and a swelling in the anterior part of the palate for past 9 months. On radiograph, an oval, well-circumscribed, radiolucent lesion was observed in the maxillary anterior region. Extra orally no abnormality was detected. Cone beam computed tomography (CBCT) images showed that the lesion was approximately 20×16×14 mm in size. The lesion was completely removed under local anaesthesia and sent for histopathological examination. As a result of histopathological examination, the specimen was diagnosed with a nasopalatine duct cyst.

Conclusion: Nasopalatine duct cyst occurs in approximately 1% of the population. It may be asymptomatic or involve swelling, pain and drainage from the hard palate. Radiography shows a well-circumscribed, round, oval or heart-shaped radiolucency. Histopathological findings reveal squamous or respiratory cell types, or a combination of these, infiltrated by inflammatory cells. Enucleation is the preferred treatment with low recurrence rate.

Keywords: Anterior maxilla, Incisive canal, Nasopalatine duct cyst

PP-008
Radicular Cyst of the Maxilla: A Case Report

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Objective: Radicular cysts are inflammatory odontogenic cysts of the tooth-bearing regions of the jaws. Most of these lesions involve the apex of the offending tooth and appear as well-defined radiolucencies. Because of their clinical features similar to other more common lesions in the oral cavity, the differential diagnosis should include dentigerous cyst, ameloblastoma, odontogenic keratocyst, periapical cementoma and Pindborg's tumour.

Case: A 29-year-old male patient applied to our clinic with the complaint of pain in the left upper jaw area for approximately 10 months. After the confirmation of the lesion based on symptoms, clinical and panoramic findings, an dental volumetric tomography examination was performed to detect the lesion and to evaluate its content, size, and the relationship with anatomical structures. When the patient's dental tomography was examined, it was observed that there was a well-circumscribed mass extending from the left maxillary first molar roots region to the left maxillary sinus, approximately 2x2x2 cm in size, causing resorption in the surrounding bone tissue. The patient was planned to have the cyst completely enucleated under local anesthesia.

Conclusion: Treatment selection is contingent upon aspects like the lesion's extent, its association with adjacent structures, the lesion's clinical characteristics, and the patient's systemic condition. Surgical interventions for radicular cysts encompass total enucleation, marsupialization or decompression, or a mix of these methodologies. The aforementioned case report of a radicular cyst was effectively managed with surgical enucleation and curettage.

Keywords: Maxillary sinus, odontogenic cysts, radicular cyst

PP-009
Dentigerous Cyst In A Young Child: A Case Report

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Objective: Dentigerous cysts are one of the most common types of developmental odontogenic cysts occurring in the oral cavity and often occur as incidental findings and/or asymptomatic swellings on dental radiographs. These cysts develop from remnants of the depleted enamel epithelium attached at the level of the cementoenamel junction around an unerupted or impacted tooth. This brief report highlights a case of an asymptomatic dentigerous cyst identified in a 14-year-old child followed by enucleation under general anesthesia. Thorough clinical and radiographic evaluation of the oral cavity in pediatric patients necessitates review of dentigerous cysts by the dentist.

Case: A 14-year-old systemically healthy patient who applied to our clinic for another complaint was diagnosed with a radiolucent cystic lesion originating from tooth number 38 in the left lower jaw during clinical and radiological examination. The patient was planned to have a cyst enucleation under general anesthesia, the relevant lesion was enucleated, the causative tooth was extracted and the area was primarily sutured. The removed tissue was sent to the pathology laboratory for histopathological examination and a diagnosis of dentigerous cyst was made.

Conclusion: Dentists and pediatric dentists are in a unique position to detect oral abnormalities during the clinical examination phase. Although most dentigerous cysts are considered developmental in origin and are associated primarily with third molars and permanent maxillary canines, it is important to recognize that they can also occur in young children, may be inflammatory in origin, and may affect developing permanent teeth.

Keywords: impacted tooth, dentigerous cyst

PP-010
What Is The Cause Of Numbness? The Answer: Radicular Cyst

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Objective: Radicular cyst is the most common type of odontogenic cyst associated with the apex of non-vital teeth. The lining of the radicular cyst usually arises from the epithelial rests of Malassez. They are the most common cysts of the jaws.

Case: A 45-year-old male patient presented to our clinic with a feeling of numbness on the right side of his lip. Roots in the mouth were detected in the intraoral examination. In the panoramic film taken, a large cystic structure originating from tooth number 44 and associated with n.mentalis was detected. The patient was operated and the cystic tissue was enucleated.

Conclusion: In the surgical treatment of dentigerous cyst cases, marsupialization and enucleation techniques can be used. In the controls of the patient, the feeling of numbness in the lip ended and the healing was normal.

Keywords: radicular cyst, odontogenic cyst

PP-011

A Case Report: Dentigerous Cyst

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Objective: Dentigerous cysts are odontogenic cysts associated with the crowns of permanent teeth. They are the most common cysts in the jaws after radicular cysts. They are usually detected on routine dental radiographs and do not cause pain or other discomfort unless they are secondarily infected.

Case: A 50-year-old male patient presented to our clinic. Radiographs revealed diffuse radiolucency associated with the crown of the right madibular third molar. The patient was unaware of the condition. Tomography was taken for further examination. Tooth 48 was also found to be associated with the n.alveolaris inferior. The patient was operated and the cyst was enucleated. The extracted content was sent to pathology for further examination. The patient developed damage to the related nerve. The patient was started on routine medical protocol medication.

Conclusion: Pathology was reported as dentigerous cyst. The patient's nerve damage reversed. Marsupialization and enucleation are the main surgical treatment methods of dentigerous cysts.

Keywords: Dentigerous cyst, odontogenic cyst

PP-012
Management of Dental Implant Displacement into the Maxillary Sinus: A Case Report

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Objective: The displacement of dental implants into the maxillary sinus is uncommon, especially occurring in patients with significant pneumatization of the maxillary sinus and/or alveolar process deficit. Complications, including paranasal sinus infections and oroantral fistula formation, may result in the displacement of a dental implant. Consequently, the displaced implant must be promptly excised through surgical intervention, and an alternative rehabilitation strategy should be contemplated.

Case: A 58-year-old male patient with no medical history of interest or known harmful habits visited our clinic to restore the maxillary arch. As a result of radiographic evaluation, it was decided to extract the teeth in the maxilla and restore them with an implant-supported fixed prosthesis on 7 implants in positions #17, #14, #13, #12, #22, #25 and #26. The patient had bone type D4 in the right posterior maxilla, so during implant placement in position #17, it was accidentally displaced into the sinus along with its carrier part. Orthopantomography was performed intraoperatively, after migration of the implant into the sinus cavity. The implant, which was displaced into the sinus, was removed without delay with a lateral window approach through the socket prepared for the implant. The patient was advised to continue the remaining medication. The relevant area was not re-implanted and it was decided to make the prosthesis on the remaining 6 implants.

Conclusion: Dental implants that have migrated into the maxillary sinus must be extracted promptly. Nonetheless, prompt extraction may sometimes be unfeasible due to the patient's condition or the dentist's insufficient technical expertise.

Keywords: Dental implant, Implant displacement, Maxillary sinus

PP-013
Complications of Open Reduction and Internal Fixation of Mandibular Condyle Fracture: A Case Report

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Objective: Mandibular fractures are the second most common type of facial fracture, following nasal bone fractures, with mandibular condyle fractures accounting for 17.5– 52% of all mandibular fractures. Management of condylar fractures may involve conservative treatment, closed reduction or open reduction, and internal fixation.

Case: A 24-year-old male patient with no medical history of interest or known harmful habits visited our clinic for the treatment of some teeth in his maxilla and mandible. Extraoral examination revealed mandibular asymmetry, and radiographic examination revealed a miniplate fracture in the left mandibular condyle region. In the anamnesis of the patient, it was learnt that the left mandibular condyle fracture occurred as a result of being hit by a vehicle while waiting at the bus stop in 2012. At that time, a plastic reconstructive and aesthetic surgeon applied a miniplate with open reduction to the left mandibular condyle, but the dentist was not consulted. In 2018, when the patient applied to the same clinic again with complaints of paresthesia and mandibular asymmetry, it was observed that a mini plate fracture occurred. The patient could not be treated again due to problems in social health insurance, and today he continues his life with asymmetry and low-dose paresthesia.

Conclusion: There is generally no clear consensus on the appropriate clinical indications for open reduction and internal fixation of condylar fractures, except in cases involving reduction in ramus height, bilateral condylar fractures, severe displacement, and dislocation.

Keywords: Facial Nerve Injuries, Mandibular Condyle, Mandibular Fracture

PP-014
Mandibular Kissing Molars: Is it advisable to uncover impacted love or not?

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Objective: The permanent teeth frequently impacted by eruption issues include the mandibular and maxillary third molars, maxillary canines, central incisors, second mandibular premolars, and, less commonly, second molars (0.03-0.04% of all impacted teeth). The phrase "kissing molars" or "rosette formation" denotes impacted mandibular second and third molars that have occlusal surfaces in contact inside a singular follicular space, with roots oriented in opposing directions. This word has also been utilized to denote a comparable appearance in other affected molars.

Case: A 56-year-old male patient came to our clinic with a complaint of pain in the right lower mandible and to have a prosthesis made. Radiological examination revealed 11 impacted teeth, 5 in the maxilla and 6 in the mandible. The impacted teeth in the maxilla were right 2nd molar, right 3rd molar, left canine, left 2nd molar and left 3rd molar, while the impacted teeth in the mandible were right and left 1st, 2nd and 3rd molars. Since profound caries was detected in the patient's right mandibular 1st molar, it was decided to remove only this tooth under local anaesthesia. Since the other impacted teeth were asymptomatic, it was decided to leave them where they were. Postoperative recovery was uneventful without any complications after one week of follow-up.

Conclusion: The dentist must have a thorough knowledge about the various forms of impactions including kissing molars, because these can be signs of various medical conditions. Detailed and specific investigations are further required.

Keywords: Impacted molars, Kissing molars, Multiple impacted teeth

PP-015
Diagnosis and Surgical Treatment of a Dilated Odontoma:A Case Report

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Objective: Dilate odontoma is considered a severe variant of dens invaginatus, resulting from the folding of the dental papilla before the mineralization stage of the enamel organ. It is a rarely encountered developmental dental anomaly.Maxillary permanent incisors, particularly the lateral incisors, are most commonly affected, although posterior teeth may be involved in very rare cases.Radiographically, it is surrounded by a radiopaque border and has a radiolucent center.The aim of this case presentation is to better understand the rarely observed dilate odontoma.

Case: A 13-year-old female patient presented to our clinic due to the impaction of tooth number 21. The patient was systemically healthy and did not have any ongoing medication use. On intraoral examination, a firm, slight swelling was observed on the buccal side of the maxillary anterior region.On the patient's tomography examination, a mass measuring 2x2.5 cm with radiopaque borders and a central radiolucent appearance was observed, associated with the impacted tooth number 21, extending to the nasal floor in the maxillary anterior region.Surgical excision of the mass under local anesthesia was planned for the patient. The wound area was closed primarily after surgery. The mass was sent for biopsy. The patient was prescribed prophylactic antibiotics, analgesics, and a mouthwash.

Conclusion: Treatment options for dilated odontoma, which is usually asymptomatic in the jaw bones, depend on its severity. These options typically include observation or surgical treatment

Keywords: dilated odontoma

PP-016
Peripheral Osteoma in the Anterior Mandible; Case Report

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Objective: Osteomas are rare, mostly asymptomatic, and slow-growing benign tumors. Osteomas that occur in the cranial bones are typically found in the sinuses, and less frequently in the maxilla and mandible.Due to their slow growth, osteomas in the maxillofacial region remain asymptomatic until they reach a size that causes functional and aesthetic issues.

Case: A 55-year-old systemically healthy female patient presented to our clinic with a painless, firm swelling on the lingual side of the anterior region of the mandible, which she had noticed over the past three months, along with mobility of the lower incisors. Based on the clinical and radiological examination, a preliminary diagnosis of peripheral osteoma was made. A CBCT examination revealed a 2x3 cm-sized mass. The mobile teeth were extracted, and the mass was excised through an excisional biopsy and sent to the pathology laboratory for evaluation. The pathological examination confirmed that the tissue was consistent with bone of a hard nature.

Conclusion: Although peripheral osteomas are rare benign lesions, surgical excision is recommended if they cause aesthetic or functional impairments.

Keywords: mandible, peripheral osteoma, surgical excision

PP-017
A Familiar Foreign Body: Case Report

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Objective: A foreign body is an object originating from an external source that is not normally present in that specific area. Foreign bodies can vary in terms of their cause, modality, and severity, and may be autologous (e.g., teeth and bone) or heterologous (e.g., glass, metal, etc.). Foreign bodies in the oral region are commonly identified by maxillofacial surgeons; however, they can sometimes present diagnostic and treatment challenges due to factors such as the size of the object, proximity to vital structures, and difficulties with access.

Case: A 43-year-old systemically healthy female patient had undergone extraction of the right mandibular second premolar 10 years ago due to extensive crown decay and pain. A fixed bridge prosthesis was then placed using the adjacent right and left teeth as support. The patient presented to our clinic with complaints of mobility in the supporting teeth of the bridge prosthesis and pain on palpation in the previously extracted area. Radiographic examination revealed a 5x5 mm foreign body with a metallic appearance. It was decided to remove the foreign body surgically. Upon reviewing the patient's history and the extracted object, it was determined that the foreign body was a piece of a dental elevator. The wound area was sutured, and medication was prescribed to the patient.

Conclusion: In the management of foreign bodies detected in the oral region, the condition of the foreign body is considered. Depending on the situation, either follow-up or surgical treatment is performed.

Keywords: foreign body

PP-018
Removal of Foreign Body Invaded Buccal Mucosa After Trauma: A Case Report

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Objective: A foreign body is defined as an object in a tissue that does not belong to that region. This situation may enter the tissue as a result of an accident, intentionally or an iatrogenic cause. In general, RFBs in the jaw are small, relatively inert in structure, and asymptomatic. They usually present a challenge to surgeons because of many factors, such as finding RFBs, determining their location, access, and close anatomical relationship to vital structures and deep spaces of the maxillary region.

Case: A 22 year old male patient, presented to our clinic with the complaint of a hard foreign body in his cheek, after sustaining an injury from a fall one month ago.He reported that the affected area had been irrigated extraorally and sutured as part of an emergency intervention. On clinical examination, a scar was observed on the mucosa of the right cheek.Upon palpation of the affected area, the presence of a foreign body was detected.Radiographic findings revealed a radiopaque foreign body in the posterior region of the mandible. Under local anesthesia, the foreign body was removed with incision and blunt dissection in the area.The patient was followed up and completely healed one week later.

Conclusion: It is quite difficult to diagnose the presence of a foreign body during the initial examination.Often, foreign bodies carry microorganisms and can cause infection in the wound. The treatment of these injuries involves thorough irrigation, detailed clinical and radiological examination of the wound area, and removal of foreign bodies while minimizing the bacterial wound flora.

Keywords: *Buccal mucosa, Foreign body removal, Trauma*

PP-019
Extensive Maxillary Radiolucent Lesion: A Case Report

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Objective: Large maxillary lesions can present with facial swelling and pain, significantly affecting a patient's quality of life. Proper diagnosis and surgical intervention are crucial for managing such cases.

Case: A 22-year-old female patient presented to our clinic with complaints of pain in the right maxilla and facial swelling. She had no systemic diseases, medication use, or pregnancy history. She reported undergoing cyst removal from the right posterior maxilla six years ago. Cone-beam computed tomography (CBCT) revealed an extensive radiolucent lesion extending from the distal aspect of tooth 13 posteriorly beyond the tuberosity, superiorly involving the maxillary sinus and reaching the orbital floor.The patient was informed about the risks of the procedure and the necessity of extracting multiple teeth. After careful consideration, she returned to schedule the surgery. Under local anesthesia, teeth 14, 15, 16, and 17 were extracted, and the lesion was completely enucleated. The patient was discharged with post-operative care instructions.

Conclusion: This case highlights the importance of thorough radiological evaluation and timely surgical intervention in managing large maxillary lesions. Further histopathological analysis is required to confirm the diagnosis and guide long-term follow-up.

Keywords: female, maxillary sinus, odontogenic cysts

PP-020
A Case Report: Huge Radicular Cyst

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Objective: Radicular cysts are among the most common cysts in the jaws and always appear together with devital teeth. These cysts can reach large sizes and cause resorption of the bone in the area. When infected, symptoms such as pain, swelling, pus flow may occur.

Case: A 22-year-old female patient presented to our clinic for routine examination. Radiographs showed a large radiolucency of the patient's mandibular tooth number 46. The patient had no clinical symptoms. The patient was operated and the cystic tissue was removed.

Conclusion: The patient's recovery was uneventful. There were no complications caused by the operation.

Keywords: radicular cyst, odontogenic cyst

PP-021
Odontogenic Myxoma: A Case Report

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Introduction: Odontogenic myxoma is a rare odontogenic neoplasm that accounts for 3-6% of all odontogenic tumors and behaves with local aggression. It is more common in women and typically presents at an average age of 30.7 years. Generally, it occurs in the posterior mandible and appears as unilocular or multilocular lesions radiologically. Treatment involves extraction of the affected tooth, curettage of the lesion, or resection.

Case Presentation: A routine dental examination of a 54-year-old female patient revealed a multilocular radiolucent lesion in the left mandibular corpus. In the differential diagnosis, dentigerous cyst, odontogenic myxoma, and ameloblastoma were considered. An incisional biopsy was performed. Upon histopathological diagnosis of odontogenic myxoma, curettage of the lesion affecting a wide area was planned under general anesthesia.

Treatment Follow-up: Following enucleation under general anesthesia, curettage was performed. Due to the extensive defect in the patient's mandible, miniplate fixation was applied. The patient has been followed up for 19 months postoperatively without recurrence.

Conclusion: Odontogenic myxomas are rare and locally aggressive. Due to the possibility of recurrence, it is recommended to remove healthy bone tissue beyond the tumor's boundaries. In this case, since the tumor extended to the mandibular base, segmental resection was avoided, and after enucleation, aggressive curettage was performed. Miniplate fixation was applied to preserve the continuity of the mandible and protect the nerves. The treatment successfully restored some of the functional forces.

Keywords: odontogenic myxoma, bening tumour, mesenchymal tumour

PP-022
A Large Keratocyst Case Invading the Maxillary Sinus and Nazal Floor: Conservative Surgical Approach and Clinical Follow-up

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Introduction: Odontogenic keratocysts are benign but invasive lesions known for their aggressive growth potential and high recurrence rates. Treatment options include enucleation, marsupialization, resection, and the adjunctive application of Carnoy's solution in lesion cavity. However, when critical anatomical structures such as the sinus and nasal floor are perforated, conservative approaches must be preferred for avoiding any harm.

Case Presentation: A 60-year-old female patient was diagnosed with a large keratocyst extending from the anterior maxilla to the premolar-molar region, causing destruction in the nasal floor and maxillary sinus walls. An incisional biopsy was performed for preliminary diagnosis and was confirmed the lesion as an odontogenic keratocyst. The patient was scheduled for treatment under local anesthesia using a conservative surgical approach.

Treatment and Follow-up: Four fenestration sites were created in intensive regions of the cyst for enucleation. Carnoy's solution did not be used into the lesion cavity because of existing exposure sites of the maxillary sinus wall and nasal floor. Postoperative follow-up with panoramic radiographs at 3rd, 6th, and 12th months revealed a significant regression of cyst cavity and initiation of bone healing.

Conclusion: Although aggressive surgical interventions and chemical agents can reduce recurrence rates in the management of keratocysts, conservative approaches can yield successful outcomes when critical anatomical structures are involved. This case demonstrates that enucleation performed with minimally invasive techniques with multiple perforation sites provided satisfactory healing.

Keywords: Odontogenic kerocyst, conservative surgery

PP-023
Removal of a Root Fragment Displaced into the Submandibular Space: A Case Report

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Objective: The majority of maxillofacial surgical procedures are performed for the purpose of extracting impacted third molars. The displacement of impacted teeth during surgical procedures is an exceedingly rare occurrence that can have significant adverse effects. The aetiology of tooth or tooth root displacement can be attributed to several factors, including inadequate preoperative clinical and radiographic examination, incorrect surgical technique, excessive force application during tooth or tooth root elevation, and anatomical variations in the jaw bones.

Case: During the extraction of tooth number 48 of a 19-year-old female patient who applied to our clinic for the removal of an impacted tooth, the mesial root was fractured and the fractured piece was displaced towards the submandibular space as a consequence of perforation of the alveolar bone at the apical part of the socket during elevation. An intraoperative CBCT scan was performed to determine the position of the displaced root fragment. After raising the flap from the lingual area to increase the field of view, extra-oral pressure was performed to the submandibular area and the displaced root fragment that moved towards to socket was removed with a haemostat.

Conclusion: The displacement of teeth or roots during the surgical treatment of an impacted tooth is an exceedingly rare occurrence. If this complication occurs, it is of great importance to determine the exact location of the displaced fragment by CBCT examination. This will facilitate the removal of the root fragment with minimal trauma.

Keywords: Displacement, Submandibular Space, Third Molar

PP-024
Clinical and Radiological Follow-up of Graft Use in External Sinus Lift Procedure: *A Case Series*

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Objective: Insufficient bone height in the maxillary posterior region is a significant factor affecting dental implant success. The sinus lift procedure, commonly used to increase bone volume, can support implant success by increasing bone height through the application of grafts. However, successful outcomes can also be achieved in areas where a sinus lift is performed without graft application. This case report aims to compare the clinical and radiological results of grafted and non-grafted areas in two patients who underwent bilateral sinus lifts.

Case: Two patients, a 40-year-old female and a 42-year-old male, presented to our clinic due to tooth loss in the bilateral maxillary posterior regions. Radiographic evaluations showed insufficient bone height, leading to external sinus lifting with grafting on one side and sinus lifting with a resorbable gelatin sponge filling the space on the other side, followed by simultaneous implant surgery.

After completing the osseointegration process, radiological and clinical assessments were conducted. Significant bone volume increase was observed in the grafted areas, while less bone growth was noted in the sinus-lifted, non-grafted regions. However, implant stability was successful in both methods.

Conclusion: In this case series, graft use was more effective in increasing bone volume; however, implant stability and the desired clinical and radiological outcomes were achieved in the non-grafted regions as well. Larger sample size randomized controlled trials are needed for long-term implant success.

Keywords: *bone graft, resorbable gelatin sponge, sinus lift*

PP-025
Spindle Cell Malignant Mesenchymal Tumor with a Large Radiolucent Area in the Maxilla: A Case Report

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Objective: Spindle cell malignant mesenchymal tumor is a rare, aggressive malignancy with a high potential for local invasion. These lesions are uncommon in the head and neck region and are characterized by significant bone destruction in the maxilla, tooth-related resorption, and sinus perforation. Clinically, they may present with pain, swelling, tooth mobility, and facial asymmetry. Radiologically, irregularly bordered radiolucent areas, cortical destruction, and sinus invasion can be observed. A definitive diagnosis is made through histopathological and immunohistochemical examinations. Treatment involves wide surgical excision, often combined with adjuvant oncological approaches when necessary.

Case: A 59-year-old male patient with no systemic disease presented with complaints of pain, swelling, and tooth mobility in the right maxilla. Panoramic radiography and CBCT imaging revealed a large, irregularly bordered radiolucent lesion associated with the teeth in the right maxilla. Significant cortical destruction was observed, and the lesion had completely invaded the maxillary sinus.

An incisional biopsy was performed under local anesthesia for diagnostic purposes. The pathological examination confirmed a diagnosis of spindle cell malignant mesenchymal tumor. Following a multidisciplinary evaluation, an advanced surgical excision and adjuvant therapy were planned.

Conclusion: Spindle cell malignant mesenchymal tumor is a rare but rapidly progressive tumor in the maxilla. Early diagnosis, surgical excision and a multidisciplinary approach are critical for improving patient prognosis.

Keywords: *biopsy, malignancy, maxilla*

PP-026
Atrophic Mandibular Posterior Region Nerve Transposition with Simultaneous Implant Placement: A Case Report

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Objective: Bone loss in the mandibular posterior region is a condition that complicates implant placement. In such cases, nerve transposition is an effective method used to ensure adequate bone height. The paresthesia that develops after nerve transposition is usually temporary and can improve over time with nerve regeneration. This study aims to evaluate the clinical and radiological outcomes of implant placement performed simultaneously with nerve transposition in the left mandibular posterior region.

Case: A 52-year-old female patient, who had previously received implants in the left mandibular posterior region at another center, presented to our clinic. Clinical and radiological evaluations revealed radiolucency around the implants in the 35 and 36 regions, and it was clinically impossible to perform appropriate prosthetic treatment. After discussions with the patient, it was decided to remove the implants and perform nerve transposition following bone healing. The incisive branch was severed to transpose the inferior alveolar nerve, and simultaneous implant placement was carried out. Paresthesia was recorded using the Visual Analog Scale (VAS) on postoperative day 2, week 1, month 1, month 6 and a two-point discrimination test was performed. Paresthesia was significantly observed in the postoperative period. Upon follow-up, the symptoms gradually improved.

Conclusion: Nerve transposition is an effective treatment option for simultaneous implant placement in atrophic mandibles. However, further randomized clinical studies with larger sample sizes are needed to assess long-term success.

Keywords: Nerve transposition, implant, paresthesia

PP-027
Lip Mucosal Reduction of A Patient with Congenital Double Lip Structre: A Case Report

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Objective: The double lip deformity seen in this report is a common but rare is one of the reported deformations. This deformed top or the lower lip has an accessory groove or excess mucous of the inner part of the vermilion border membrane is categorized as having a membrane. There is no definite finding regarding the incidence of this deformity does not exist

Case: A 62 years old systemically healthy male patient presented to us because of the negative effects of double lip deformity in terms of aesthetics and function.The congenital second lips had grown over time and were uncomfortable for the patient.We started monopolar cauterization after measuring and drawing the necessary incision areas with the help of electrocautery under local anesthesia.We ligated the superior labial vein that we encountered on the right lip.After controlling bleeding, we sutured the wound edges primarily.While suturing, we made relaxing incisions in the superior part to prevent the upper lip from looking thinner than it is by creating tension.We made local corticosteroid application due to edema that may occur in the operation area. After prescribing the necessary medications to our patient, we recommended local ice application and discharged the patient

Conclusion: We removed the sutures in the second week after the operation. We successfully completed the mucosal reduction of our patient's second lip, which got between his teeth and was traumatized during eating, both aesthetically and functionally.

Keywords: double lip, reduction

PP-028
Extraskeletal Mesenchymal Chondrosarcoma in Palatal Mucosa: A Rare Case Report

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Objective: Extraskeletal mesenchymal chondrosarcoma (EMCS) is an uncommon sarcoma that originates from soft tissues, predominantly affecting lower extremities, meninges, and orbits. This tumor typically manifests in the second and third decades of life and is characterized by biphasic histological pattern. Due to the extremely rare occurrence of EMCS, treatment approaches remain unstandardized; however, that requires multidisciplinary approach. Surgical resection, often combined with chemotherapy or radiotherapy, is commonly preferred for the treatment. This case report aims to present an EMCS arising in the palatal mucosa of a young patient.

Case: A 30-year-old male patient was referred to the Oral and Maxillofacial Surgery clinic with a rapidly enlarging, asymptomatic lesion in the palatal mucosa that had been present for five months. Clinical evaluation revealed ulcerative soft tissue mass in the left palatal mucosa, accompanied by mobility of adjacent teeth. Punch biopsy revealed a malignant tumor with small round mesenchymal cells, a vascular pattern, and hyalinized matrix production, leading to an EMCS diagnosis. A lesion of malignant nature was detected in the Magnetic Resonance Imaging (MRI) findings. After obtaining patient's consent, hemimaxillectomy was planned under general anesthesia, and surgical obturator prosthesis was designed digitally to ensure postoperative comfort. The resection was performed with appropriate margins, and the prosthesis was fitted into the oral cavity. The patient is currently under follow-up.

Conclusion: The rarity of EMCS requires detailed evaluation for diagnosis and treatment, with definitive diagnosis relying on histopathology, clinical, and radiographic findings. Furthermore, importance of multidisciplinary treatment approaches and periodic follow-up is emphasized.

Keywords: Hemi-maxillectomy, mesenchymal chondrosarcoma, palatal obturator

PP-029
Recurrent Odontogenic Keratocyst Of The Anterior Maxilla: A Case Report

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Objective: The odontogenic keratocyst (OKC) is a benign cystic neoplasm originating from remnants of the dental lamina. It primarily affects individuals aged 10 to 40, with an average diagnosis age of 38 years. A slight male predominance is observed, with the mandible, particularly the posterior body and ascending ramus, being the most common site. Multiple OKCs can be associated with nevoid basal cell carcinoma syndrome. The treatment of OKC is crucial due to its aggressive clinical behavior and high recurrence rate. This report aims to present a case of recurrent OKC occurring 11 years after the initial surgical intervention.

Case: A 47 year-old male patient presented to our clinic for routine examination. Upon reviewing his medical history, it was noted that he had undergone cyst surgery in the right maxillary region in 2014 and the biopsy of the excised lesion indicated an OKC. Radiographic examination revealed a multilocular radiolucent lesion with well-defined sclerotic borders in the region of the right maxillary canine and premolar teeth, in the same area where a previous surgery had been performed and an OKC had been diagnosed. The patient underwent surgery for enucleation of the lesion.

Conclusion: Recurrences could result from residual epithelial remnants left behind after cyst removal, as well as the development of new cysts originating from microcysts or clusters of epithelial islands commonly present in the overlying mucosa. Long-term clinical and radiographic follow-up is essential, as OKC can recur even many years after surgery.

Keywords: odontogenic keratocyst, recurrence, cyst

PP-030
Traumatic Bone Cyst Of The Posterior Mandible: A Case Report

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Objective: A traumatic bone cyst (TBC) is a solitary lesion without an epithelial lining, surrounded by bony walls, and either lacking contents or containing liquid and/or connective tissue. TBC most commonly affects individuals in their second decade of life, with an average age of approximately 20 years. Sex predilection remains controversial. Although these lesions have been reported to regress spontaneously, a biopsy is almost always performed for diagnostic confirmation. In most cases, the biopsy itself is curative, as any factor inducing bleeding within the lesion promotes its resolution. This report aims to present a case of TBC in the posterior mandible of a 15-year-old patient, along with the surgical approach.

Case: A 15 year-old male patient presented to our clinic for routine examination. The patient's medical and family history was unremarkable. Clinical examination revealed no abnormalities. Radiographic examination revealed a fairly well-defined radiolucency, which has a scalloped margin beneath the left mandibular second molar tooth. For the surgical procedure, a sulcular incision was made followed by full-thickness mucoperiosteal flap elevation and corticotomy on the buccal aspect of the lesion while preserving the root apex. The presence of an empty cavity without epithelial lining confirmed the diagnosis of TBC.

Conclusion: In this report, we present the radiographic findings and surgical management of a case of TBC. Due to the diverse characteristics of this cyst, a thorough history, combined with clinical evaluation and imaging, is essential for accurate diagnosis, appropriate treatment planning, and prognosis assessment.

Keywords: traumatic bone cyst, cyst

PP-031
Treatment of Extraoral Recurrent Fistula Tract: A Case Report

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Objective: A 27 years old systemically healthy male patient presented to our clinic with the complaint of fistula and discharge extraorally after a biopsy was taken from the right mandibular region for diagnosis in an external center. The patient was evaluated clinically and radiologically.

Case: In the patient, extraoral fistula tract was seen clinically, necrotic and dead bone areas were seen in radiological evaluation.The patient was decided to be operated. The patient was approached intraorally and extraorally under general anesthesia and necrotic bone areas were curetted. The fistula tract was deepitelized. It was washed with local antibiotics.Spongiosis bone was taken from the illiac crest and adhered to the relevant area so that there was no gap. The area was closed primerally.

Conclusion: Postoperative hyperbaric oxygen treatment was planned for the patient before the operation. After the treatment, it was observed that the necrotic areas decreased and the exstaroral fistula tract was closed after the post op prescribed drugs and hyperbaric oxygen application.

Keywords: extraoral, fistula, iliac

PP-032
Reduction of Multiple Jaw Fractures After Trauma: A Case Report

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Objective: We decided to perform open reduction of the displaced fractures that occurred in a traffic accident in an 18-year-old systemically healthy male patient.We decided to perform surgery the day after the traffic accident occurred.

Case: After the patient became stable, we decided to operate with submental intubation under general anesthesia. Panfacial fractures are the first indication for submental intubation.Not making fracture reduction incisions on the attached gingiva reduces the risk of postoperative plaque exposure.We used miniplates and miniscrews for open reduction of the mandible symphysis and angulus fractures, maxilla posterior premolar region and extending towards the zygomatic bone. Although the fracture line in the angulus region made it difficult for us due to the wisdom tooth present there, we managed to plate it with the Champy method. We used miniplates with double point fixation in the symphysis region.The reduction of the fragments was performed with the help of intermaxillary fixation, preserving the patient's current occlusion.We primarily sutured the existing lacerations and full-thickness flaps inside the mouth. After submental extubation, we primarily sutured the submental region and the floor of the mouth.

Conclusion: Postoperative clinical and radiological examinations were performed and all controls were provided.At the end of the 2nd week after the operation, the sutures were removed. It was seen that the oral mucosa was healing healthily and was in harmony with the existing occlusion. The patient was informed about the recommendations to follow.

Keywords: submental, trauma

PP-033
Fixed Prosthetic Rehabilitation in Atrophic Maxilla and Mandible: The Use of Zygomatic and All-on-Four Implants: A Case Report

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Objective: Dental implantology has become a routine and successful treatment modality for edentulism. However, severe bone atrophy in the maxilla and mandible presents a significant challenge for implant placement. Traditionally, bone augmentation techniques have been employed to address this issue. Nevertheless, these procedures often extend treatment duration and increase the risk of complications. As such, alternative approaches such as zygomatic implants and the All-on-Four concept have gained popularity, particularly in cases of severe bone resorption.

Case: This case report details the rehabilitation of a 44-year-old female patient who lost all her teeth due to aggressive periodontitis. Following clinical and radiological assessments, a treatment plan involving standard implants in the premaxilla, zygomatic implants in the posterior maxilla, and All-on-Four implants in the mandible was devised. The surgical procedure was performed under general anesthesia, and after mucoperiosteal flap elevation, the zygomatic arch was exposed. Zygomatic implants were placed, followed by anterior maxillary implants. In the mandible, All-on-Four implants were inserted, with angled posterior implants and vertical anterior implants. The patient received antibiotics, analgesics, and steroids postoperatively. After a six-month healing period, a titanium bar-supported monolithic zirconia prosthesis was fabricated.

Conclusion: In conclusion, zygomatic and All-on-Four implants offer a viable alternative to bone grafting in severely atrophic jaws. These techniques minimize the need for extensive bone augmentation, reduce treatment time, and lower overall costs. Consequently, they significantly enhance patient satisfaction in prosthetic rehabilitation.

Keywords: *implant, maxilla, zygomatic*

PP-034
The Clark's Technique of Vestibuloplasty in Dental Implant Patients: 3 Case Reports

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Objective: Adequate hard and soft tissue support is essential for the long-term success of implant-supported prostheses. Insufficient vestibular depth and lack of keratinized tissue can negatively impact peri-implant soft tissue health and reduce prosthesis stability. Vestibuloplasty is a surgical method used to address such soft tissue deficiencies. The Clark vestibuloplasty method is one of the commonly preferred techniques in mucogingival surgery, offering fast healing with its minimally invasive approach. This study evaluates the application and outcomes of the Clark vestibuloplasty method in three patients with peri-implant soft tissue deficiency.

Case: Three patients who presented to our clinic with peri-implant soft tissue deficiency after implant treatment were diagnosed with the need for vestibuloplasty. During the examination, it was observed that the width of keratinized tissue was insufficient and the vestibular depth around the implants was reduced. Clark vestibuloplasty was performed under local anesthesia, and the healing process was monitored postoperatively.

Conclusion: The Clark vestibuloplasty method successfully provided adequate vestibular depth and increased the width of keratinized tissue in all patients. No complications developed in the postoperative period, and functional and aesthetic outcomes were achieved in all patients. This method is considered a reliable and effective vestibuloplasty technique for patients with peri-implant soft tissue deficiencies.

Keywords: Vestibuloplasty, Dental Implant, Soft Tissue Management

PP-035
Pleomorphic Adenoma of the Palate a Case Report

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Objective: Salivary gland tumors account for 1-4% of all neoplasms in humans, with pleomorphic adenoma being the most common benign mixed tumor, frequently found in the parotid gland. These tumors occur in the parotid gland (80%), submandibular gland (10%), and minor salivary glands and sublingual gland (10%). Among minor salivary glands, the hard palate is the most common site. The primary treatment is surgical excision, and recurrence is typically not observed with proper surgical intervention.

Case: A 34-year-old male patient presented to our clinic with a complaint of a mass in the midline of the palate, which had been present for one year and had gradually increased in size. Intraoral examination revealed a painless, immobile, firm mass with a smooth surface, measuring approximately 2.5x2.5 cm, located in the center of the hard palate. The patient underwent surgery under local anesthesia. During the procedure, the mass was completely excised along with the periosteum while maintaining the surgical margins. The defect in the hard palate was primarily sutured. No postoperative complications were observed. Histopathological analysis confirmed the diagnosis of pleomorphic adenoma, and there was no recurrence during a 12-month follow-up period.

Conclusion: Pleomorphic adenoma is a rare tumor in the hard palate and should be considered in the differential diagnosis of palatal masses. Complete excision while preserving surgical margins is essential for treatment. Due to the recurrence risk, lifelong follow-up of patients is recommended. In cases of recurrence, the possibility of malignant transformation should be carefully monitored.

Keywords: Palate, Pleomorphic adenoma, Salivary glands

PP-036
Surgical Excision of an Intraoral Buccal Lipoma: A Case Report

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Objective: Lipomas are one of the most common tumors of the body. While frequently encountered in the other regions, intraoral lipomas are relatively rare. When present, they are usually seen underneath the buccal mucosa. They are usually asymptomatic, and because of their benign nature, they can remain in the body unnoticed or without the patient seeking treatment for many years. The objective of this case report is to present the clinical presentation, diagnosis, and surgical management of an intraoral buccal lipoma.

Case: This case report describes the surgical removal of an intraoral lipoma in a 49-year-old male patient. The patient presented with a slow-growing, painless mass in the cheek. Physical examination revealed a 2.5 cm mass underneath the buccal mucosa. An intraoral excisional biopsy was performed under local anesthesia. Histopathological examination confirmed the diagnosis of the lipoma. The patient tolerated the procedure well and experienced minimal postoperative discomfort, although on the seventh postoperative day, the stitches seemed to have opened. Complete resolution of the lesion was achieved, with no signs of recurrence observed during follow-up.

Conclusion: This report highlights the presentation, diagnosis, and successful surgical management of an intraoral lipoma using an intraoral approach.

Keywords: benign tumor, lipoma, oral cavity

PP-037
Autotransplantation of an Immature Third Molar to the Extraction Site: A Case Report

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Introduction: Autotransplantation usually refers to the procedure in which an immature tooth is relocated to a suitable site within the same individual's oral cavity. This technique can prevent the permanent loss of teeth in young patients and ensure successful osseointegration. Furthermore, it enables the preservation of the tooth and allows its continued development in cases of tooth loss.

Case Presentation: A 14-year-old male patient, in good systemic health, presented to our clinic with pain in the lower right first molar. After clinical and radiographic evaluation, it was determined, in consultation with the patient, to extract the tooth and transplant the lower right third molar into the extraction site due to inadequate arch width. During the same session, tooth 46 was extracted under local anesthesia, followed by curettage using a sharp curette, and the site was disinfected with rifampicin. The crown of tooth 48 was adapted to the site, and teeth 45 and 47 were splinted with a semi-rigid wire. The patient was followed for six months. As no lesions were observed around the root and surrounding tissues of the transplanted tooth, root canal therapy was not indicated.

Results: Functional and aesthetic results were initially satisfactory. However, during the long-term follow-up, the transplanted tooth exhibited failure and required extraction. This case highlights the importance of long-term follow-up in autotransplantation procedures.

Keywords: Autotransplantation, Immature Third Molar, Osseointegration

PP-038
Residual Cyst Showing Expansion in the Left Maxillary Sinus, Resorbing the Nasal Floor and Alveolar Crest: A Case Report

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Objective: Cysts Originating from the Alveolar Bone Are a Common Condition Encountered in Daily Clinical Practice. While These Cysts Exhibit Benign and Slow Growth in Some Patients, They Can Be Aggressive and Grow Rapidly in Certain Cases.

Case: A Patient Presented to Our Clinic With Swelling and Pain Located on the Lateral Side of the Nose. Upon Examination, a Cystic Tissue Expanding the Medial Wall of the Left Maxillary Sinus and Causing Extensive Resorption in the Alveolar Crest and Nasal Floor Was Identified. For the Surgical Procedure, an Incision Was Made at the Crest of the Upper Jaw Alveolar Ridge. The Cystic Tissue Was Then Accessed Using a Periosteal Elevator. The Cyst Was Dissected From the Surrounding Bone Using Curettes. Once Fully Mobilized, It Was Grasped With a Clamp and Removed. It Was Observed That the Facial Asymmetry and Swelling Had Resolved. The Surgical Site Was Sutured Using 3.0 Silk Sutures. At the One-Week Follow-Up Appointment, the Patient's Postoperative Swelling and Pain Had Subsided.The Sutures Were Removed.

Conclusion: Residual Cysts Can Grow to Sizes That May Affect Surrounding Tissues and Organs. In Such Cases, The Removal of the Residual Cyst Using an Appropriate Surgical Technique Is Crucial for Patient Health and Comfort.

Keywords: Residual Cyst, Expansion, Resorption

PP-039
Clinical and Surgical Management of a Multiple Tooth-Involving Alveolar Fracture Due to a Traffic Accident: A Case Report

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Objective: Fractures of the Trauma-Related Dentoalveolar Complex Are a Common Occurrence in Our Daily Clinical Practice.

Case: A 20-year-old male patient presented to our clinic just a few minutes after a traffic accident. Upon clinical examination, a laceration on the lip area and an alveolar bone fracture involving six teeth (41-42-43-31-32-33) in the anterior region of the mandibular alveolar crest, showing a lingual rotation, were observed. The fractured alveolar segment was repositioned back in place using a completely bimanual approach. To avoid disrupting the vascularization and periosteal support of the fracture segment and to prevent exacerbating existing tissue swelling, the flap was not opened.

A semi-rigid fixation was prepared using stainless steel wire splints, covering the teeth numbered 44-43-42-41-31-32-33-34, which were bonded to the corresponding teeth with composite. This provided adequate fixation. The patient was started on antibiotic therapy and non-steroidal anti-inflammatory drugs. Regular follow-up appointments were scheduled weekly, and at the end of the fourth week, the splints were removed during the follow-up visit. Successful healing of the bone fragment was observed.

Conclusion: Alveolar bone fractures can lead to significant aesthetic and functional consequences. In this case, the surgical treatment was successful, and the patient achieved satisfactory functional and aesthetic results. Early diagnosis, the correct treatment method, and regular follow-up are critical for a successful outcome.

Keywords: Fixation, Splint, Semi-rigid

PP-040
Condylar Osteochondroma: A Case Report

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Objective: Osteochondroma is an uncommon reason for the mandibular condyle to grow excessively. Usually unilateral, it can impact the entire mandible, the condyle and ramus, or just the condyle. The clinical symptoms of the osteochondroma are facial asymmetry, crossbite on the unaffected side, open bite on the affected side, a deviated opening path, condylar motion limitation, disc displacement, and rarely, pain. This report presents the surgical treatment of a condylar osteochondroma case with pain and difficulty during mouth opening.

Case: A 42-year-old female patient came to our clinic with complaints of limited mouth opening and pain in the right temporomandibular joint area. Clinical examination revealed facial asymmetry, jaw deviation towards left side, restricted mouth opening. Irregular radiopaque mass was seen over the right condylar region in orthopantomography. The cone beam computed tomography showed hyperplasia at the right condylar head. Under general anesthesia, the mass was surgically removed using a preauricular technique. The pathology report indicated osteochondroma. Occlusal corrections and jaw physiotherapy were then administered. The histopathological diagnosis was osteochondroma of the mandibular condyle. During the patient's postoperative follow-up, it was observed that her pain-related complaints had resolved and her mouth opening was normal. The patient is still being followed up.

Conclusion: Osteochondroma of the mandibular condyle is often resected because it causes functional and aesthetic problems, but it rarely recurs. Surgical treatment of the osteochondroma should be performed considering the possibility of recurrence, and long-term follow-up is recommended.

Keywords: Benign jaw tumor, Mandibular condyle, Osteochondroma

PP-041
Unilateral Condylar Hypoplasia in a Pediatric Patient: A Case Report of Facial Asymmetry Linked to Early Childhood Otitis Media

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Objective: Condylar hypoplasia is a rare craniofacial condition characterized by underdevelopment of the mandibular condyle, which may lead to facial asymmetry, functional impairment, and occlusal disturbances. This case report presents a 6-year-old female patient who was brought to our clinic by her parents due to concerns about facial asymmetry and mandibular deviation during mouth opening..

Case: Clinical examination revealed marked facial asymmetry with deflection to the right upon mouth opening. Radiographic evaluation, including panoramic imaging and computed tomography (CT), confirmed right-sided condylar hypoplasia. The CT scan demonstrated flattening of the condylar process, articular eminence, and mandibular fossa, as well as shortening of the ascending ramus and hypoplasia of the mandibular body on the affected side. In contrast, the left temporomandibular joint appeared normal. An interdisciplinary approach was adopted. The mother reported a history of purulent otitis media at approximately 1.5 years of age, raising suspicion for early joint insult. Orthodontic consultation recommended delaying functional orthopedic therapy until age 9, while initiating an occlusal appliance to address myofunctional habits in the interim. Exercise therapy aimed at stimulating condylar development was provided.

Conclusion: Facial asymmetry resulting from condylar hypoplasia may not be immediately apparent following the inciting event, emphasizing the need for careful developmental monitoring. Early diagnosis and appropriate intervention are crucial for improving functional and esthetic outcomes.

Keywords: Condylar hypoplasia, facial asymmetry, pediatric TMJ disorder

PP-042
Transparotid Approach to Mandibular Subcondylar Fractures with Retromandibular Incision: A Case Report

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Objective: A 17 years old male patient applied to our clinic with pain and occlusion disorders due to a blow to the mandibula. The patient was evaluated clinically and radiologically. A displaced subcondylar fracture on the right side and relatedly, early contact in right side occlusion, Deviation of the jaw tip to the right and facial asymmetry were observed.After the patient was evaluated clnically and radiologically, it was decided to undergo the operation.

Case: The patient was orally intubated under general anesthesia. In addition, local anesthesia was applied to the related area. The fracture line was reached by a retromandibular incision and a transparotid approach. The fracture line was reposed. 2 mini plates and mini screws were used for fixation. The operation area was sutured subcuticularly.

Why transparotid approach?

In this technique, the condyle neck is reached by dissection under the subcutaneous fat tissue. blunt dissection is applied between the temporal and buccal branches of the facial nerve. during dissection, the parotid gland parchyme is passed in a blunt way and the subcondylar region ıs reached.The technique ıs superior to the retromandibular approach İn terms of viewing. because in this approach, the fracture line can be reached directly without the need for additional removal. This will prevent facial nerve injuries due to retractor traction.

Conclusion: The patient was taken to the clinic after being extubed. Approximately 6 hours after the operation, the patient was made various face movements and no complication was observed in the facial nerve control.

Keywords: subcondylar, transparotid

PP-043]

Reduction of Post-Traumatic Panfacial Fractures: A Case Report

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Objective: A 43 years old systemically healthy male patient applied to us with a complaint of a traffic accident. In our clinical and radiological examinations, there was a displaced left zygomatic arch fracture, a right maxilla posterior fracture, a left orbital lateral bone fracture, a displaced mandibular symphysis fracture, and a comminuted nasal fracture

Case: As a result of our examinations, we decided to operate on the patient. We provided submental intubation under general anesthesia, which is the first indication for panfacial fractures due to the mandible and nasal fracture. We provided open reduction of the lateral orbital bone with a single mini plate, fixed.We ensured appropriate occlusion before reducing the fracture lines in order to preserve the patient's existing occlusion.The mandible symphysis region with open 2-point fixation with mini plates, provided open reduction of the maxilla fracture with a single mini plate, and reposed the left zygomatic arch fracture with the closed approach, the Gillies method.We performed a closed reduction of the nasal fracture and fixed it with plaster and tampon.

Conclusion: We admitted the patient to our service.We informed the patient and his/her relatives not to touch or press on the area for 3 weeks for zygomatic arch reduction.We removed the intermaxillary fixation screws and wires that we applied to ensure proper occlusion during the repair of mandible and maxilla fractures after 2 weeks. We removed the existing sutures. We explained the postoperative recommendations to the patient again.

Keywords: fractured, panfacial, reduction

PP-044
Treatment of Bilateral Condylar Fracture with Open Reduction: A Case Report

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Objective: Bilateral condylar fractures are common but are frequently undertreated. In most of the cases, only one side is surgically addressed and the other side is managed conservatively. The aim of this case report is to outline the successful treatment process of a patient who sustained bilateral condylar fractures, a parasymphysis fracture, and a cortical fracture of the maxilla due to a face-first fall, managed with intermaxillary fixation (IMF) and bilateral open reduction of condyles.

Case: A 53-year-old male patient presented with anterior open bite, pain and restricted mouth opening. On examination, edema and tenderness noted over chin and temporomandibular joint region bilateral. The obtained imaging revealed a non-displaced fracture in the anterior maxilla and a non-displaced parasymphysis fracture. Additionally, a medially displaced condylar neck fracture on the left side and a displaced subcondylar fracture on the right side were identified. The patient underwent open reduction and internal fixation under general anesthesia and intermaxillary fixation with IMF screws was placed with teeth in occlusion. The patient remained in IMF for four weeks to ensure stabilization and proper healing.

Conclusion: The management of bilateral displaced condylar fractures presents a significant challenge in maxillofacial trauma due to the functional and anatomical importance of the condylar region. In this case, successful treatment was achieved through intermaxillary fixation (IMF) followed by bilateral open reduction and internal fixation, ensuring optimal occlusal alignment and temporomandibular joint function.

Keywords: Condyle fracture, mandible fracture, open reduction

PP-045
Accidental Displacement of a Dental Implant into the Nasal Base: Report of a Rare Case

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Objective: Dental implants in the maxilla may migrate to the base of the nose, maxillary sinus or nasal cavity, depending on the anatomical boundaries both during and after surgical installation. These complications are usually associated with low primary stability, bone resorption and failures in surgical technique. The aim of this report is to present a case of a dental implant that migrated to the nasal cavity at 3 months postoperatively.

Case: A 59-year-old woman was treated three months previously with dental implants at external centre. The dentist placed healing caps on the corresponding sites 3 months later, but the implant in the upper left canine region was displaced upward. 3D radiographic evaluation revealed that the implant has migrated to the base of nasal cavity. Afterward, the dentist sutured over the region of the intruded implant, informed the patient, and referred her urgently to our clinic to remove the displaced implant. Otorhinolaryngology was consulted for removal of the implant by endoscopic approach, since the implant was very close to the nasopharynx. However, the implant spontaneously extracted when the patient sneezed before the endoscopy was performed.No complications were reported during follow-up period.

Conclusion: In this case report, migration of the implant into the nasal cavity, a rare and serious complication of dental implant placement, is reported. Up to the present, there are only five reports of implant migration into the nasal cavity in the literature, which indicates how infrequent this complication is, considering the large number of implant treatments done in clinical practice

Keywords: Complication, Implant migration, Nasal cavity

PP-046
Massive Cutaneous Draining Sinus Tract of Odontogenic Origin: A Case Report

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Objective: Objective: Odontogenic cutaneous sinus tracts are uncommon and often misdiagnosed due to their variable clinical presentation. It is characterized by a pathologic channel that originates in the oral cavity and extends externally to the cutaneous surface of the face or neck. The aim of this report is to present a case of a healthy male patient with a huge cutaneous fistula, which was successfully managed through surgical intervention and antibiotic therapy.

Case: A healthy 25-year-old male patient was referred to the Department of Oral and Maxillofacial Surgery with a chief complaint of purulent discharge from a cutaneous fistula in the right submandibular region. Clinical and radiographic evaluation revealed a periapical radiolucent lesion associated with the right mandibular second molar, along with an ulcerated lesion in the right submandibular area exhibiting purulent drainage.

The affected tooth was extracted under local anesthesia during the patient's initial visit to the clinic. Following extraction, the socket and sinus tract underwent thorough curettage and irrigation with a saline-iodine solution to ensure decontamination. The underlying etiology was an inflamed tooth with pulp necrosis. After extraction, the infection resolved rapidly, demonstrating the effectiveness of eliminating the causative factor.

Conclusion: Cutaneous draining sinus tracts are an uncommon condition and can be easily misdiagnosed. It is essential for dentists and healthcare professionals to recognize that both draining and non-draining skin lesions may have an odontogenic origin.

Keywords: Extraoral cutaneous sinus, Extraoral draining fistula, Odontogenic cutaneous fistula

PP-047
Alveolar Cleft Repair With İliac Crest Bone Graft: A Case Report

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Objective: Alveolar cleft belongs to the spectrum of cleft lip and/or palate, affecting %75 of such patients. Alveolar cleft repair has the goals of eliminating oronasal fistulas, maintaining maxillary dental arch continuity, improving alar base support and facilitating oral hygiene. Although various graft types have been used in alveolar cleft repair, autogenous grafts obtained from the iliac crest region have been accepted as the gold standard.

Case: A 19 years old female patient was admitted to our clinic with complaints of nasal regurgitation and aesthetics. An alveolar cleft was detected in the patient's left maxillary lateral tooth region. The patient was planned to undergo alveolar cleft repair with iliac crest bone graft under general anesthesia. The defect area in the recipient region was completely exposed and the nasal floor was created. After exposing the iliac crest, the cortical part of the iliac crest was opened in the form of a lid and the cancellous bone between the two cortical layers was harvested. The harvested cancellous bone graft was compressed and applied to the defect area. The mucoperiosteal flap was elevated sufficiently in the coronal direction and closed without tension to prevent exposure of cancellous bone particles.

Conclusion: As a result of postoperative clinical and radiological examinations, iliac crest bone graft was found to be successful in alveolar cleft repair and nasal floor continuity was achieved.

Keywords: Alveolar bone grafting, Alveolar cleft, İliac crest

PP-048
Odontogenic Keratocyst: A Case Report

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Objective: Odontogenic keratocyst is a highly aggressive and silent cyst that originates from remnants of the dental lamina or the primordial odontogenic epithelium. It has a significant tendency to recur. The mandible is more commonly affected than the maxilla. The purpose of this case report is to present the treatment and follow-up process of a patient with odontogenic keratocyst in the mandible, who underwent enucleation after marsupialization.

Case: A 52-year-old male patient was referred to our clinic by the otolaryngology department with a suspected tumor in the right posterior mandible. Panoramic and cone beam computed tomography revealed a radiolucent lesion extending from the posterior right mandible to the ascending ramus and coronoid process, associated with an impacted third molar. An incisional biopsy was performed under local anesthesia. The pathological diagnosis confirmed an odontogenic keratocyst, and a tube was placed for marsupialization. Six months after marsupialization, under general anesthesia, the right impacted third molar and second molar teeth were extracted, and the cyst was enucleated.

Conclusion: The odontogenic keratocyst is distinguished by its aggressive nature, typically presenting as expansive lesions in the posterior mandible, often without clinical symptoms, yet with the potential for invasion and recurrence. Treatment strategies are determined based on the size of the lesion. To preserve surrounding anatomical structures, enucleation after marsupialization hold a crucial role in the treatment of large cystic lesions.

Keywords: Enucleation, Marsupialization, Odontogenic keratocyst

PP-049
Fracture of Mandibular Reconstruction Plates Used after Tumor Resection: A Case Report

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Objective: Squamous cell carcinoma (SCC) of oral cavity and oropharynx are among the aggressive malignancies that require early surgical intervention. While mandibular resection provides complete removal of the tumour, it may lead to functional and aesthetic deficiencies. Reconstruction plates are commonly preferred to compensate for these defects. However, the long-term success of reconstruction plates may be limited due to biomechanical loading, and complications such as plate fracture may occur. The aim of this report is to present a case of plate fracture in a patient who was treated with a reconstruction plate after mandibular resection for SCC.

Case: A 50-year-old male patient presented to our clinic with a complaint of swelling in the gingiva. Following clinical examination, the patient was referred to the otorhinolaryngology (ENT) department. A biopsy performed by the ENT team confirmed a diagnosis of SCC in the right mandible. During surgery, mandibular resection and neck dissection were performed, and the defect was reconstructed using a reconstruction plate. At the 11th postoperative month, the patient developed complaints of pain in the mandibular region and limitation of masticatory function. Radiographs revealed a fracture in the reconstruction plate. Revision surgery was planned, and the application of a new reconstruction plate was considered.

Conclusion: The long-term success of reconstruction plates used in mandibular reconstruction depends on many factors such as biomechanical factors, infection and general health status of the patient. This case indicates that complications that may occur with reconstruction plates should be carefully monitored and alternative reconstruction methods should be evaluated.

Keywords: Mandibular resection, reconstruction plate, plate fracture

PP-051
Treatment of Keratocyst: A Case Report of Enucleation Following Marsupialization

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Objective: Keratocysts are the most commonly localized cysts in the posterior mandible, and their treatment may involve enucleation or marsupialization. In this case report, enucleation was performed following marsupialization due to the large size of the cysts.

Case: A 50-year-old male patient with no systemic diseases presented to our clinic with complaints of extraoral swelling and pain in the right ramus region. Radiological examination revealed a well-defined, multilocular, radiolucent lesion in the right posterior mandibular region, extending into the condyle and involving the 48th tooth. Initially, an incisional biopsy was performed, followed by marsupialization, and histopathological results confirmed the diagnosis of a keratocyst. After a reduction in the size of the cyst, enucleation was carried out. Considering the risk of recurrence, the patient has been followed up at regular intervals.

Conclusion: Keratocysts account for 10% of cysts in the oral region. They can reach large sizes and involve significant anatomical structures. Marsupialization performed prior to enucleation helps prevent potential complications and makes the enucleation procedure safer.

Keywords: Keratocyst, Enucleation, Marsupialization

PP-057
Secondary Infection Due to Iatrogenic Teeth Perforation During Mini-Plate Osteosynthesis: A Case Report

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Objective: Titanium mini-plate fixation is a standard for maxillofacial fractures due to its durability and biocompatibility. Anatomical structures should be carefully considered during the application of mini-plates to the fracture line. In this report, the removal of infected mini plates due to drilling of teeth in the fracture line during mini plate fixation in the mandible is presented.

Case: A 19-year-old systemically healthy male patient presented to our clinic with complaints of facial asymmetry and paresthesia in the right lower lip. Radiological and clinical evaluation demonstrated that infection had occurred as a result of iatrogenic perforation of the teeth within the right corpus fracture line by drilling failure. On the left side, an infection was observed in the area due to the tooth in the angulus fracture line. After antibiotic treatment, root canal treatment was performed on teeth with iatrogenic root perforation. Then, under general anesthesia, the mini-plates and screws were removed, and apical resection was performed on perforated teeth, Also, the tooth in the left angulus fracture line was extracted. The patient underwent intermaxillary fixation by placing IMF screws.

Conclusion: In spite of a monocortical design, miniplate osteosynthesis can injure dental roots directly. Therefore, anatomical structures should be preserved during miniplate osteosynthesis. The plates placed in a manner that prevents damage to the tooth roots and the mandibular canal.

Keywords: Iatrogenic tooth perforation, Mini- plate, Mandibular fracture

PP-059
Misdiagnosed Mucoepidermoid Carcinoma of the Maxilla: A Case Report

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Objective: Mucoepidermoid carcinoma (MEC) is a rare and aggressive malignant tumor that primarily affects the salivary glands. Its occurrence in the maxillary region is exceptionally uncommon and poses a significant risk of misdiagnosis. This case report presents a patient initially diagnosed with a radicular cyst, later confirmed to have mucoepidermoid carcinoma.

Case: A 17-year-old male patient presented to our clinic with extraoral swelling, pain, and lymphadenopathy in the left maxillary region. It was learned that the patient was diagnosed with an infected radicular cyst after an aspiration biopsy performed at an external center. Intraoral examination revealed a 1×1 cm red elevated lesion in the left palatal region. Aspiration of the lesion revealed a mucoid, yellowish, pus-like fluid. Initial treatment with antibiotics and root canal therapy was attempted; however, due to an inadequate recovery response histopathological examination was recommended for definitive diagnosis. Cyst enucleation was performed under general anaesthesia and histopathological examination of the biopsy specimen confirmed the diagnosis of mucoepidermoid carcinoma.

Conclusion: Rare malignant lesions in the maxillary region can be easily misdiagnosed for inflammatory cystic lesions. This case highlights the critical role of histopathological examination in every oral pathological lesion. Early diagnosis and treatment of rare malignancies such as mucoepidermoid carcinoma can significantly improve patient outcomes.

Keywords: Histopathological diagnosis, misdiagnosed, mucoepidermoid carcinoma

PP-062
Khoury's Bone Shell Technique vs Customized CAD/CAM Titanium Mesh for 3D-bone Augmentation in Atrophic Bilateral Posterior Mandible: A Case Report

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Objective: Treatment alternatives based on implant-supported prostheses may be almost impossible in cases with extremely atrophic mandibles. In patients with severe bone loss in the mandibular region, various reconstruction techniques are employed to enhance bone volume before implant placement. This case report presents the reconstruction of a severe vertical bone defect using customized CAD/CAM titanium mesh covered by collagen membrane combined with autogenous bone, deproteinized bovine bone graft and allograft in the right posterior mandible and the Khoury technique in the left posterior mandible after implant removal caused by advanced peri-implantitis.

Case: A 49-year-old male patient presented to our clinic with complaints of severe mobility and pain in the implants located in the right and left posterior mandible. Clinical and radiographic evaluations revealed severe periimplantitis. It was decided to remove the existing implants and reconstruct the deficient bone in the affected areas. For the atrophic mandible on the left side, a mandibular bone block was harvested, split and then fixed to augment the mandibular defect using osteosynthesis screws. For right side, augmentation was achieved using customized CAD/CAM titanium mesh fixed with bone screws. No postoperative complications occurred and implants were placed after 6 months.

Conclusion: Different reconstruction techniques are used to enhance implant success in cases of severe atrophic mandible. In this case, both the customized CAD/CAM titanium mesh and the Khoury technique created sufficient bone volume before implant placement, providing functionally and aesthetically satisfactory results. Additionally, custom mesh provided additional benefits such as reduced surgical time and a simplified operation.

Keywords: Customized CAD/CAM titanium mesh, Khoury Technique, Vertical bone augmentation

PP-064
Ameloblastoma of the Anterior Mandible: Case Report

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Objective: Ameloblastoma is a locally invasive but usually benign tumor of odontogenic origin. It is most commonly seen in the mandible, especially in the ramus and corpus region. It usually presents as a painless, slowly growing mass. In advanced cases, it may cause swelling, tooth displacement and cortical bone destruction. Radiologically, it is characterized by a multilocular "honeycomb" or "soap bubble" appearance. It is usually detected incidentally during routine radiographic examinations.

Case: A 36-year-old male patient presented to our clinic with a swelling. A full-thickness flap was removed and cortical perforation was observed on the lingual surface. The tumor was enucleated preserving the mental nerve and the bone surfaces were curetted. Central incisor, lateral incisor, associated with the lesion painless, lingual in the anterior region of the mandibleimpacted canine and first premolar teeth were extracted. Intact tissue was removed from the edges of the cavity and surgical margins were controlled. The lesion was sent for histopathologic examination and diagnosed as ameloblastoma.

Conclusion: Ameloblastoma is the most common odontogenic tumor of the jaws. It is aggressive and has the potential for local invasion and can be successfully managed with early diagnosis and appropriate surgical treatment. Enucleation or resection is usually sufficient for small lesions, while block resection is necessary for large lesions. Due to the high risk of recurrence, regular clinical and radiologic follow-up is required in the postoperative period.

Keywords: Ameloblastoma, Benign Tumor, Mandible

PP-065
Maxillary Sinus Mucocele: Case Report

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Objective: Maxillary sinus mucocele is an epithelial cyst formation that develops as a result of obstruction of sinus drainage, grows slowly and is usually asymptomatic. It may cause pain, swelling and impaired sinus function by compressing the surrounding tissues. It is seen in the sinuses. Maxillary and most commonly frontal and ethmoid sphenoid sinus mucoceles are rarer. Surgical interventions, trauma and infections play an important role in their etiology.

Case: A 49-year-old male patient was admitted to our center with the complaint of toothache. After the clinical examination, it was decided to extract the patient's teeth numbered 11, 12, 13, 15 and 17. When the patient's second molar was extracted, the maxillary sinus was exposed and sinus mucocele was seen. After the sinus mucocele was removed and the area was cleaned, the area was closed primerally. The tissue was sent for histopathologic examination and the pathology results confirmed that the tissue sample was a mucocele.

Conclusion: Maxillary sinus mucocele is a rare benign tumor and its etiology is not fully understood. Mechanical obstruction or allergy has not been shown to play an important role. There is also no strong evidence supporting an infectious origin. The recurrence rate is very low when removed with appropriate surgical technique.

Keywords: Tooth extraction, Maxillary sinus, Mucocele

PP-066
Simple Bone Cyst in the Mandibular Symphysis: Case Report

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Objective: Simple bone cysts, also known as traumatic bone cysts, are intraosseous bone cavities without epithelial margins and are usually asymptomatic. Although they are mostly seen in the posterior regions of the mandible, they may rarely occur in the symphysis region. Although the exact etiology is unknown, hematoma resorption in the bone after trauma is thought to play a role. It is usually detected incidentally during routine radiographic examinations.

Case: A 14-year-old female patient mandibular was referred to our clinic because of radiolucent lesions in the symphysis region, which were incidentally detected radiologically. It was learned. that the patient had no history of traumaUnder, the hollow cavities were surgically accessed and the margins were curetted and filled with blood. The hard tissues taken from the cavity margins were sent for histopathologic examination and the result was local anesthesiaa simple bone cyst without lining epithelium.

Conclusion: Simple bone cysts appear radiologically as well-circumscribed, unilocular radiolucent lesions without cortical expansion. Central giant cell granuloma, aneurysmal bone cyst and other odontogenic cysts and tumors should be considered in the differential diagnosis. Treatment is usually based on surgical exploration of the cyst cavity and spontaneous healing. Curettage may accelerate bone regeneration. Histopathologic evaluation should be performed for definitive diagnosis. Recurrence is rare.

Keywords: Simple bone cyst, Mandible, Symphysis

PP-067
Irritation Fibroma of the Gingiva: Case Report

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Objective: Irritation fibroma is a benign, reactive connective tissue hyperplasia that develops in response to chronic mechanical trauma. Since the gingiva is a region exposed to constant trauma, irritation fibromas are common here. Prosthetic use, calculus, faulty restorations and incorrect brushing habits may play a role in the etiology. It usually presents as a painless, well-circumscribed, slow-growing lesion.

Case: A 74-year-old male patient was referred to our clinic with a mass in his upper jaw. On clinical examination, on the gingiva distal to the right maxillary second molar a hard mass with, the same color as the surrounding healthy gingiva, non-ulcerated and painless on palpation was found. At the same time, painless swelling it was observed that she had been exposed to irritation from a previous fixed prosthesis. Therefore, a clinical diagnosis of irritation fibroma was made. The excised lesion was sent for histopathologic examination and the result confirmed the clinical diagnosis.

Conclusion: Clinical diagnosis of irritation fibromas requires differential diagnosis with other gingival lesions with similar appearance. Definitive diagnosis can be made by histopathologic examination. The most effective method in treatment is surgical excision of the lesion. Furthermore, identification and elimination of etiologic factors is important in reducing the risk of recurrence. Therefore, habits that cause recurrent trauma to the oral mucosa should be evaluated and patients should be followed up regularly.

Keywords: Fibroma, Gingiva, Irritation

PP-068
Treatment of Unilateral Active Condylar Hyperplasia-Related Facial Asymmetry: A Case Report of a Two-Stage Approach

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Objective: The treatment of active unilateral condylar hyperplasia related facial asymmetry requires an accurate diagnosis, control of growth, and may necessitate orthognathic surgery. In these cases, there are two approaches: waiting for the spontaneous cessation of condylar growth or surgically terminating the growth through high condylectomy. In the presented case, the asymmetry caused by condylar hyperplasia was first corrected, followed by bimaxillary surgery.

Case: A 20-year-old male patient with no systemic diseases presented to our clinic with complaints of facial asymmetry. Scintigraphic evaluation revealed an asymmetric growth pattern in the condyles. A high condylectomy was performed through a preauricular approach to access the condyle. After a six-month follow-up, bimaxillary orthognathic surgery was performed.

Conclusion: The surgery for condylar hyperplasia associated with dentofacial deformities can be performed in either a two-stage or single-stage approach, depending on the surgeon's clinical experience and the specific case. Orthognathic surgery performed following condylectomy produces more effective and stable results for patients with active unilateral condylar hyperplasia and associated dentofacial deformities, ultimately improving their quality of life.

Keywords: condylar hyperplasia, orthognatic surgery, condylectomy

PP-069
Fibroma on the Tongue: A Case Report

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Objective: Exophytic lesions secondary to tissue trauma are among the most common benign lesions of the oral mucosa. Fibromas, which develop due to repetitive trauma, most commonly occur on the tongue, buccal mucosa, and lower lip mucosa1. These lesions typically appear as whitish, broad-based, slow-growing lesions that do not exceed 1-2 cm in size, often due to mastication. In some cases, they may become ulcerated as a result of secondary trauma1. Histopathologically, dense collagen bands, mature fibroblasts, chronic inflammatory cells, and hyperkeratosis of the epidermis are observed. Preventing trauma is crucial. The treatment of choice is surgical excision1.

Case: A 22-year-old female patient, with no systemic diseases and undergoing orthodontic treatment for one and a half years, presented to our clinic with a complaint of growing fibrotic tissue on the tongue. During the clinical examination, a fibrotic tissue measuring 1x1.2 cm was observed on the right side of the dorsum of the tongue, which had developed as a result of the orthodontic appliance. Histopathological examination confirmed the diagnosis of a fibroma. Surgical excision was performed using a scalpel and cautery. At the one-month follow-up, no recurrence of the lesion was observed.

Conclusion: Fibromas are tissue growths that can develop as a result of trauma. If left untreated, they may grow in size. Treatment options include laser therapy, cryotherapy, and surgical excision.

Keywords: Fibroma, trauma, orthodontic appliance

PP-070
Osteoma-like Residual Cyst in the Maxillary Sinus: A Case Report

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Objective: Residual cysts are rare inflammatory jaw cysts that occur after the extraction of a tooth, essentially being radicular cysts without the presence of the offending tooth. These cysts can destroy bone without symptoms and may resemble more aggressive lesions, such as osteomas, on radiographs. Osteomas are benign, slow-growing, non-odontogenic tumors, often asymptomatic. This case report highlights the clinical and pathological features of residual cysts to help differentiate them from other lesions and tumors.

Case: A 48-year-old male patient, with no systemic disease, applied to our clinic for tooth extraction. Radiological examination revealed a radiopaque lesion in the right maxillary sinus, where the second molar had been removed years prior. Detailed CBCT imaging showed a radiopaque structure with cortical borders originating from the sinus floor. The patient exhibited no symptoms. After local anesthesia, the mucoperiosteal flap was lifted with a submarginal incision and an osteotomy was performed, exposing the sinus and lesion. The lesion was sent for pathological examination. The diagnosis was an inflamed benign cyst lined with squamous epithelium. Enucleation was successfully performed with a low recurrence rate.

Conclusion: Residual cysts should be considered in the differential diagnosis of patients with extracted teeth. Since osteomas are often asymptomatic and can mimic other benign cysts on radiographs, careful examination, biopsy, and histopathological analysis are essential for accurate diagnosis and treatment planning.

Keywords: Osteoma, Residual Cyst, Sinus

PP-071
Central Giant Cell Granuloma: A Case Report

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Objective: Central giant cell granuloma (CGCG) can invade the cortex and spread to the soft tissue, presenting a malignant tumor-like appearance3. Both lesions are more commonly observed in women than men, and are more frequently found in the mandible1,2. Etiologically, they are believed to have hormonal, traumatic, or neoplastic origins. Historically, the treatment for CGCG has been curettage or resection. However, it has been reported that the recurrence rate after treatment ranges from 11% to 49%. The classical treatment, which is still applied in most centers, involves curettage and grafting for the reconstruction of the area.

Case: A 15-year-old female patient was referred to our clinic from the oral diagnosis and radiology department for a tomography examination. No expansion was observed during the intraoral examination. A cystic structure was observed in the right quadrant of the mandible, which had caused perforation in the buccal cortex. The relevant teeth showed a positive response to the electric pulp test. This cystic structure was surgically enucleated, and histopathological examination confirmed the diagnosis of central giant cell granuloma. The patient is being monitored with follow-up appointments every month.

Conclusion: The generally applied treatment for CGCG is curettage and grafting for the reconstruction of the affected area. En-bloc resection is also one of the recommended treatment options. In this case, the lesion was enucleated, and the patient is under follow-up to monitor for recurrence, which has not been observed thus far.

Keywords: Central giant cell granuloma, enucleation, curettage

PP-072
Dentigerous Cyst: A Case Report

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Objective: Dentigerous cysts develop when a space forms around the crown of an impacted tooth after the crown begins to form, and the remnants of the enamel epithelium undergo cystic transformation1.They most commonly occur in the mandibular molar region and in males.Dentigerous cysts are the second most frequently encountered odontogenic cysts in the jaws after radicular cysts1,2.This case report aims to present the treatment and follow-up of a dentigerous cyst.

Case: A 38 years old male patient with hypertension was referred to our clinic with a suspected cyst in the left corpus region of the mandible, identified through a radiograph taken at the oral diagnosis and radiology clinic.Upon clinical examination, expansion was observed.Biopsy was performed on the affected area.Histopathological examination confirmed the diagnosis of a dentigerous cyst.The marsupialization method was employed with the placement of an anterior drain, and the patient was followed up at 1, 4, and 8-week intervals.Considering the risk of jaw fracture, the cyst was reduced in size, and three months later, the impacted tooth along with the cyst was excised. The patient is a follow-up patient in our clinic.

Conclusion: Dentigerous cysts are often incidentally detected on radiographs or during clinical examination due to swelling.They can grow to large sizes without symptoms unless a secondary infection occurs, potentially leading to pathological fractures.To prevent these complications, the presence of missing teeth should be taken into account, and impacted teeth should be carefully evaluated.

Keywords: Dentigerous cyst, marsupialization, impacted tooth

PP-073
Oral Lichen Planus: A Case Report

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Objective: Lichen planus is a chronic inflammatory mucocutaneous disease.It is more commonly observed in women at the onset of the 4th and 5th decades of life1.Approximately half of patients with skin lesions also present with oral mucosal lesions, while 25% of these patients exhibit only oral lesions2.Oral lichen planus (OLP) can occur anywhere in the oral cavity, but it is most commonly seen on the buccal mucosa, the lateral parts of the tongue, and the gingiva1.2.Lesions in the mouth can be symmetric, bilateral, or multiple.

Case: 42-years-old female patient was referred to our clinic from the oral diagnosis and radiology department.Patient has no systemic diseases.On intraoral examination, a widespread symmetric white appearance was noted covering the dorsum of the tongue.Patient was advised to improve her oral hygiene and use mouthwash.Upon follow-up two weeks later, no color change, pallor, or reduction was observed in the white appearance on the tongue. Histopathological examination confirmed the diagnosis of lichen planus.Patient was referred to the dermatology department for further evaluation.

Conclusion: Although many agents have been tested in the treatment of OLP, no definitive cure has been found.The initial step in managing the disease should be patient education. Corticosteroids, due to their immunosuppressive and anti-inflammatory properties, are considered the most effective medications for the treatment of OLP. Steroids can be administered topically, intralesionally, or systemically.Surgical treatments, such as cryosurgery and CO2 laser ablation, may also be applied in OLP. Surgical treatment is generally more suitable for plaque-like lesions.

Keywords: Oral Lichen Planus (OLP), Mucosal Lesions, White Appearance

PP-074
Sialolithiasis: A Case Report

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Objective: Sialolithiasis is the most common cause of obstruction in the salivary glands1. It primarily occurs in the submandibular gland, although it is more frequently located in the glandular parenchyma and, more commonly, in the secretory duct. The treatment method is often surgical excision of the salivary stone1.

Case: A 47-year-old female patient with no systemic diseases was referred to our clinic from the oral diagnosis and radiology department after undergoing a tomography. A stone was identified in the right Wharton's duct on the computed tomography (CT). Upon palpation, saliva flow was observed from the orifice of the Wharton duct. Despite the stone's size being 20x24 mm, the patient did not experience any symptoms. Intraoral examination revealed a palpable mass in the left lower quadrant under the tongue, which was also visible on panoramic radiographs. A surgical incision was made using a scalpel, and the area was accessed with a clamp. The stone was successfully excised, and a rubber drain was placed at the site. The drain was removed after 3 days, and the patient was called for a follow-up visit one week later. Healing was observed in the affected area, with an increase in salivary flow. The patient is under ongoing follow-up.

Conclusion: Large sialoliths can lead to obstruction of the salivary gland duct, causing pain and swelling. Therefore, large sialoliths should be surgically removed, and patients should be regularly monitored.

Keywords: Sialolithiasis, salivary gland, submandibular

PP-075
Evaluation of the Effect of Masseter Botox on Patients' Quality of Life

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Objective: Botulinum toxin type A can be used in aesthetic applications as it reduces muscle activity, but it can also be used for functional purposes by suppressing activity in patients with intense muscle activity such as bruxism. The aim of this presentation is to evaluate the effects of masseter botox application on patients' quality of life.

Materials-Methods: In this presentation, patients who applied to Ankara Yıldırım Beyazıt University Faculty of Dentistry, Department of Oral and Maxillofacial Surgery with complaints of bruxism and pain in the jaw muscles were analyzed. Visual Analog Scale (VAS) measurements were made before and after the procedure and evaluation questionnaires were taken from the patients. The effect of the procedure on patients' pain, bruxism and aesthetic complaints was evaluated.

Results: As a result of botulinum toxin application, a decrease in tooth clenching activity is observed from the 7th day and patients report that their pain complaints are completely reduced. At the same time, significant atrophy of the masseter muscles was observed from the 1st month and a decrease in masseter hypertrophy in the angular region was observed.

Conclusion: Botulinum toxin application is a treatment method that can be preferred in functional and aesthetic treatments due to its high success rate and practical application. As a result of the procedure, an increase in the quality of life of the patients was observed.

Keywords: bruxism, botox, masseter

PP-076
Artroscopic Lavage Of The Temporomandibular Joint For Diagnostic And Therapeutic Purposes

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Objective: TMJ arthroscopy, used since the 1980s, is vital for diagnosing and treating joint disorders. In this case, arthroscopy was performed to examine and treat pathological changes in the temporomandibular joint (TMJ).

Case: A 23-year-old female with no systemic disorders presented with localized joint pain and limited functionality due to passive and active TMJ movement. She experienced clicking sounds, joint deflection, and a pain score of 10 on the VAS scale. Magnetic resonance imaging was conducted, and arthrocentesis under arthroscopic guidance was recommended. Arthroscopy was performed bilaterally under general anesthesia. The target area was prepared, and a line was drawn from the center of the tragus to the outer canthus. Points marking the joint fossa and eminence were identified. Point A, 12 mm from the tragus center and 2 mm below the line, and point B, marking the joint eminence, located 10 mm above and below the line, were marked. After accessing the upper joint space via point A using an arthroscopic trocar, the joint cavity was visualized with an arthroscopic camera, and lavage with Ringer's lactate solution was performed.

Conclusion: Arthroscopy allows direct visualization of pathological tissues, providing a clear assessment of cartilage conditions and the relationship between the disc and inflammation. This is crucial for decisions on intraarticular pharmacotherapy.

Keywords: artroscopy, TMJ, artroscopic lavage

PP-077
Osteomyelitis Following Tooth Extraction: A Case Report with Extraoral Fistula

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Objective: Osteomyelitis is an inflammatory condition affecting bone and bone marrow, typically caused by bacterial infections, previous surgical interventions or trauma. This case report aims to describe the clinical course and treatment process of osteomyelitis that developed after a closed tooth extraction in a patient with no systemic disease.

Case: 63-year-old male patient was referred to our clinic due to persistent swelling and the development of an extraoral fistula two months after the extraction of tooth #36 at an external center. Radiological examinations revealed bone loss at the extraction socket, radiolucent areas in the mandible, irregular cortical bone resorption and periosteal reactions. Extraoral examination identified a fistulous tract in the left posterior corpus of the mandible. The patient was diagnosed with osteomyelitis and after appropriate antimicrobial therapy, the infected tissue was debrided intraorally. The fistulous tract was then excised extraorally, and granulation tissues were removed. The wound was closed primarily with minimal scar formation. No complications were observed during the six-month follow-up period.

Conclusion: Early intervention in osteomyelitis following tooth extraction can improve treatment outcomes. Therefore, early evaluation of pathological changes in patients after tooth extraction may be necessary.

Keywords: Osteomyelitis, Extraoral Fistula

PP-078
Bilateral Condyle Fracture and Mandibular Corpus Fracture with Extraoral Approach Case Report

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Objective: Condylar fractures constitute 26-57% of all mandibular fractures. 86% of condylar fractures are unilateral and are often accompanied by angle or mandibular corpus fractures. In our case, the aim was to achieve optimal and stable fixation of the fracture fragments with minimal trauma.

Case: A 17-year-old male patient without any systemic disorders presented to our clinic with complaints of bilateral swelling, pain, and restricted mouth opening in the temporomandibular joint region. As a result of clinical and radiographic examination, a medially displaced fracture was identified in the right and left subcondylar regions, and a severe fracture was found in the right mandibular corpus area. Under general anesthesia, the subcondylar fracture site was accessed via a preauricular approach. Dissection was performed to first expose the fracture site. The joint capsule was incised, and traction was applied to properly align the medially displaced condylar head. The condylar neck, once repositioned, was fixed in place with bicortical screws. Through an intraoral approach, the fracture line in the right mandibular premolar region was identified. After the fracture line was realigned, fixation was achieved using a titanium mini-plate and mini-screws.

Conclusion: The treatment of condylar region fractures, which hold significant importance in oral and maxillofacial surgery, is crucial in preventing the development of functional and anatomical disorders.

Keywords: Condyle fracture, extraoral approach

PP-079
Follow-up of a Patient with an Unintended Lower Lip Laceration Caused by a Surgical Handpiece During the Surgical Extraction of a Mandibular Third Molar: A Case Report

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Objective: Surgical extraction of mandibular third molars is a routine procedure in dental practice, almost always accompanied by local anesthesia. Despite the procedure's routine nature, soft tissue injuries, including those to the lip, can rarely occur. In this case, the patient was unaware of the lip injury caused by the surgical handpiece due to the effective mandibular anesthesia, which numbed the lower lip and surrounding tissues during the procedure, making it harder for the surgeon to realize it at the time.The objective of this case report is to describe the follow-up observations of a patient who experienced such a complication. This report aims to provide insight into what dental surgeons might encounter during the post-operative period, focusing on managing the healing process.

Case: A 32 year-old patient underwent a routine surgical extraction of the mandibular third molar under local anesthesia. During the procedure, the patient's lower lip became unintentionally caught between the rotating round bur and the straight surgical instrument. The rotation of the round bur caused a coterization effect, resulting in a laceration and tissue damage to the lower lip. Notably, the patient was unaware of the injury due to the effective mandibular anesthesia. No immediate intervention was required for the lip laceration, and the patient was closely followed up postoperatively.

Conclusion: This case underscores the need for heightened awareness and preventive measures to avoid inadvertent soft tissue damage during mandibular third molar extractions. Follow-up care is essential in managing such incidents.

Keywords: lip injury, mandibular third molar, tooth extraction complication

PP-080
Removal Of An Implant From The Maxıllary Sinus: A Case Report

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Objective: Tooth loss in the posterior maxilla can lead to alveolar bone resorption and sagging of the maxillary sinus. This reduces both vertical and horizontal bone volume. When insufficient bone exists for dental implant placement in the posterior maxilla, a maxillary sinus lift procedure is indicated. Both open and closed sinus lift procedures reliably increase bone volume for proper implant stability. However, these methods can lead to complications.1

Case: A 25-year-old patient with no systemic diseases presented to our clinic due to tooth loss. An internal sinus lift was performed in the right posterior maxillary region, followed by the placement of two implants during the same session. No issues were observed in the panoramic radiograph taken immediately after the implant placement. However, a follow-up radiograph two months later revealed that one implant had migrated to the superomedial region of the maxillary sinus. The implant was removed using a Caldwell-Luc operation and a surgical aspirator.

Conclusion: An implant that has penetrated the maxillary sinus can lead to maxillary sinusitis, narrowing of the ostium, reduced ciliary movement, impaired mucociliary clearance, pseudocyst formation, orbital cellulitis, optic nerve damage, meningitis, or even brain abscess. Additionally, the implant may migrate from the maxillary sinus to the ethmoid and sphenoid sinuses, the orbital floor, or the cranial fossa.2,3 While some cases remain asymptomatic, the implant should be removed due to the risk associated with a foreign body.

Keywords: Maxillary sinus, Implant, Internal sinus lift

PP-081
Excısıon Of Trauma-Induced Fibroma A Case Report

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Objective: Traumatic fibroma, also referred to as focal fibrous hyperplasia, hyperplastic scar, or irritation fibroma, is a benign, localized, peripheral, tumor-like proliferation originating from connective tissue. It typically develops secondary to chronic irritation or trauma. A traumatic or irritation fibroma can be defined as the final stage of an inflammatory hyperplastic lesion following healing.1 It may arise after a single acute trauma or develop due to repetitive mild trauma, chronic inflammation, or infection. These lesions are commonly observed in areas prone to trauma, such as the buccal mucosa, lateral tongue, and lower lip.2 The preferred treatment is excision; however, resolving chronic inflammation associated with the lesion is essential to prevent recurrence.3

Case: A 42-year-old patient with no systemic diseases presented to our clinic with a complaint of gingival enlargement in the left maxillary tuberosity region. Clinical examination revealed a growth in the area attributed to cheek biting. Under local anesthesia, the lesion was completely excised. Histopathological examination confirmed the diagnosis of fibroma. No recurrence was observed during the 2-month follow-up period.

Conclusion: Chronic irritation caused by lip or cheek biting, orthodontic treatments, friction against a sharp tooth, or the use of dentures and other dental prostheses is frequently implicated in the development of such lesions.4 Patients should be comprehensively evaluated, and treatment should address the elimination of the underlying etiology.

Keywords: Irritation fibroma, Chronic trauma, Buccal mucosa

PP-082
Complex Odontoma: A Case Report

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Objective: Odontomas are hamartomas composed of various dental tissues, namely enamel, dentin, cementum, and sometimes pulp. They are slow-growing, benign tumors with non-aggressive behavior. Complex odontomas are less common than the compound type, with a ratio of 1:2.1 Enucleation is the accepted treatment option for odontomas.2This case report aims to present the diagnosis, treatment, and follow-up of an odontoma observed in the maxillary premolar region.

Case: A 27-year-old patient with no systemic diseases was referred to our clinic with a preliminary diagnosis of odontoma from the Department of Oral Diagnosis and Radiology. Radiographic examination revealed a radiopaque, tooth-like radiopacity in the right maxillary premolar region. Under local anesthesia, the lesion was completely excised. Histopathological examination confirmed the diagnosis of complex odontoma. No recurrence was observed during the 2-month follow-up period.

Conclusion: Odontomas can be successfully removed with appropriate treatment techniques. The recurrence rate of odontomas following surgical excision is low. Early diagnosis of odontomas is crucial for easier management of the condition and minimizing the need for extensive intervention.

Keywords: Complex odontoma, Hamartoma, Odontoma

PP-083
Implant Placement Following Inferior Alveolar Nerve Lateralization In Atrophic Posterior Mandible: A Case Report

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Objective: Osseointegrated implants are commonly used in the posterior mandible to support fixed prostheses. In many cases, bone resorption occurs following tooth extraction, making it impossible to place implants without risking damage to the inferior alveolar nerve. In such situations, one of the available options is the lateralization or transposition of the inferior alveolar nerve, which involves moving the nerve laterally away from its canal.1,2

Case: A 32-year-old male patient with no systemic diseases presented to our clinic with a complaint of tooth loss. Clinical and radiographic examinations revealed bilateral resorption in the posterior mandible, resulting in insufficient distance between the alveolar crest and the inferior alveolar nerve, which would prevent the placement of implants of the desired length. A bone window was created in the right mandibular corpus, and lateralization was performed. The inferior alveolar nerve was atraumaticaly shifted laterally. While the nerve was temporarily positioned laterally without excessive tension, implant cavities were prepared, and implants were placed in the cavities positioned toward the lingual cortex.

Conclusion: Repositioning of the inferior alveolar nerve is a valuable surgical procedure for the rehabilitation of atrophic mandibles, with a low risk of permanent nerve damage. However, for this technique to become widely and routinely used, prospective clinical studies and long-term patient follow-ups are necessary.

Keywords: Dental implant, Inferior alveolar nerve, Lateralization

PP-084
Radicular Cyst Developing In The Maxillary Sinus: A Case Report

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Objective: The radicular cyst is the most common type of odontogenic cyst and develops as a result of necrosis and infection in the dental pulp.1 It appears as a radiolucent lesion at the apex of a devitalized tooth or retained root fragment, similar to a periapical granuloma. When radicular cysts are observed in the posterior maxilla, the proximity of the devitalized tooth root to the maxillary sinus plays a significant role in the cyst's extension into the sinus.2

Case: A 42-year-old patient with no systemic disease history presented to our clinic with pain in the right posterior maxilla. Panoramic radiography and computed tomography (CT) evaluation revealed a decayed and crownless right maxillary second premolar. A unilocular, radiolucent, and well-defined lesion extending from the apex of the tooth into the right maxillary sinus was observed. With a preliminary diagnosis of a radicular cyst, the patient was operated on under local anesthesia. The affected tooth was extracted, and enucleation of the cyst was performed using the Caldwell-Luc approach. Histopathological examination confirmed the lesion as a radicular cyst. No complications were observed in the postoperative period.

Conclusion: Granulomas, which initially appear as simple periapical lesions, can develop into large cysts over time. Radicular cysts, frequently detected in the anterior maxilla, can displace the maxillary sinus floor and extend into the sinus when originating from molar teeth. Granulomas in the jaw should be treated and pathologically examined to confirm the diagnosis.

Keywords: Enucleation, Maxillary sinus, Radicular cyst

PP-085
Temporary Facial Nerve Paralysis Following Condylar Fracture: A Case Report

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Objective: This case report aims to present the treatment of a patient with mandibular symphysis and condylar fractures accompanied by mild facial paralysis following trauma.

Case: A 19-year-old male patient was referred to our clinic with complaints of severe trismus, malocclusion, and pain. Clinical and radiological examinations revealed fracture lines in the right symphysis and left condyle of the mandible. Under general anesthesia, the symphysis fracture was reduced and treated with internal fixation using an intraoral approach. Additionally, the left condylar fracture site was accessed via a retromandibular transparotid approach for internal fixation. However, reduction was not achieved due to the irregularity of the fracture line, and the fractured segment was insufficient in size to allow for titanium plate fixation. Therefore, the fractured segment was left to heal via closed reduction after repositioning laterally. Postoperative follow-ups revealed no complications at the intraoral and extraoral incision sites; however, facial paralysis affecting the left upper lip and the innervation area of the left buccal nerve worsened. Uneventful healing was observed after two months of physical therapy, corticosteroid therapy, and vitamin B complex supplementation.

Conclusion: In the retromandibular transparotid approach, facial nerve paralysis may occur due to edema and/or mechanical retraction of the buccal branch caused by retractor placement. Clinicians should possess adequate knowledge and experience to manage such complications effectively.

Keywords: Condylar fracture, Facial nerve, Paralysis

PP-086
Mandibular Radiolucent Lesion with Numb Chin Syndrome Occurring in a Patient with a History of Multiple Myeloma: A Case Report

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Objective: Multiple myeloma is an aggressive primary bone malignancy of unknown etiology, affecting mainly older age groups. It accounts approximately 1% of all malignancies and >10% of hematological malignancies. The most common clinical signs and symptoms of multiple myeloma include bone pain, fatigue, anemia, hypercalcemia, and osteolytic bone lesions. In this case presentation, a patient diagnosed with multiple myeloma who presented with ill-defined radiolucent lesion in the mandible will be discussed.

Case: A 59-year-old female patient, who has been followed up for multiple myeloma since 2005, presented to our clinic with complaints of pain and swelling in the posterior mandible and numb lip lasting for several months. Extraoral and intraoral examination revealed significant swelling on the left side of the mandible. Radiological examinations revealed a lytic lesion in the posterior mandible. Biopsy revealed atypical accumulation of plasma cells, and these findings were evaluated as consistent with multiple myeloma. The patient was referred to hematology department, which recommended chemotherapy. Post-treatment examinations revealed that the lesion in the jaw had no regressed and the patient's symptoms had no decreased. The patient is still continuing chemotherapy treatment.

Conclusion: This case emphasizes that malignancies should be considered in patients with multiple myeloma presenting with complaints in the jaw region. Common oral manifestations of multiple myeloma include osteolytic lesions in the mandible and maxilla that can present as painful bony swellings, epulis formation, or sudden teeth movement

Keywords: mandible, multiple myeloma, radiolucent lesion

PP-087
Pyogenic Granuloma in the Palatal Region: A Case Report

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Objective: Pyogenic granuloma is a common benign vascular lesion of the oral mucosa that often occurs due to local irritation or trauma. While it is frequently seen in the gingiva, its occurrence in the palate is relatively rare. In this poster presentation, a systemically healthy 63-year-old woman with a pyogenic granuloma lesion in the palatal region will be presented.

Case: A 63-year-old woman with no systemic disease was referred to our clinic with a painless, rapidly growing lesion on the hard palate. The lesion had been present for two months and was bleeding from time to time. Clinical examination revealed a well-circumscribed, reddish, sessile, exophytic lesion approximately 1,5 cm in diameter. No associated bone loss was observed on radiographic examination. Excisional biopsy was performed under local anaesthesia and histopathological analysis confirmed the diagnosis of pyogenic granuloma. The patient was followed up for six months postoperatively and no evidence of recurrence was found.

Conclusion: Although pyogenic granuloma is common in the gingiva, it should be considered in the differential diagnosis of palatal lesions. Complete excision and elimination of potential local irritants are very important for successful treatment and prevention of recurrence. This case emphasises the importance of early diagnosis and appropriate surgical intervention in palatal pyogenic granulomas.

Keywords: pyogenic granuloma, oral lesion, oral surgery

PP-088
Management of Dentigerous Cysts Associated with Impacted Wisdom Teeth: A Case Study of a Minimally Invasive Approach

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Objective: Dentigerous cysts, frequently observed odontogenic lesions encasing impacted teeth, are often incidentally discovered during routine radiographic assessments due to their typically asymptomatic nature. Marsupialization, a minimally invasive surgical technique, represents a key approach in the management of dentigerous and other substantial cystic lesions, facilitating healing while preserving perilesional structures.

Case: This case report details the management of a sizeable dentigerous cyst associated with mandibular third molar (tooth #48) in a 16-year-old patient identified during a routine examination. An initial marsupialization procedure was implemented to reduce cyst volume, with subsequent regular monitoring. Following a year of observation, while the impacted tooth demonstrated occlusal migration, insufficient space precluded eruption. A second surgical intervention was then performed to excise the tooth and residual cyst lining.

Conclusion: Marsupialization proves an effective treatment modality for large dentigerous cysts, ensuring mandibular structural integrity and promoting substantial bone regeneration. In large cysts associated with vital anatomical formations, long-term follow-up and marsupialization may be preferred as a more conservative approach.

Keywords: Cysts, Marsupialization

PP-089
Bone Ring Augmentation As A Salvage Augmentation Procedure

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Objective: Various procedures have been described for alveolar bone augmentation. Surgical procedures for horizontal bone augmentation have been studied with high predictable results, low complication rates, and implant survival rates of 97–100%. However, vertical bone augmentation is a more biologically challenging technique and has been associated with higher complication rates. In addition, these procedures require staged operations and long treatment times. The bone ring technique offer for vertical and horizontal augmentation and simultaneous implant placement. Furthermore, the bone ring technique might be a second chance for failed or incompleted recovery from previous augmentation procedures.

Case: A 24-year-old male patient applied for missing upper anterior teeth, which he lost owing to trauma in childhood. It was decided to rehabilitate with vertical and horizontal augmentation of alveolar bone and dental implants. First, it was performed guided bone regeneration with titanium mesh membrane and mixed xenograft-allograft rate of 1:1. Then, the titanium membrane was extracted from area after 8 month and observed the bone was still soft had some deficiency. It was decided to put off operation 2 month and complete to 10 months. Eventually, it was performed implant with bone ring augmentation for complete the vertical and horizontal deficiencies.

Conclusion: The bone ring technique might be an option as a salvage procedure for failed or incomplete healing from previous augmentation procedures.

Keywords: Alveolar bone augmentation, Bone ring augmentation technique, Guided bone regeneration

PP-090
All on Four Treatment with Prophylactic Plaque Application

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Objective: All-on-Four implant technique is a preferred treatment method for edentulous patients with advanced bone loss. In this protocol, two implants are placed perpendicular to the occlusal plane in the anterior region, while two implants are positioned at an angle between 15°-45° in the posterior region. After the surgical procedure, a temporary prosthesis is applied within 8-48 hours and the treatment is completed with a permanent prosthesis after approximately three months of healing.

Case: In this case report,the presence of impacted tooth number 43 in the mandibular anterior region was detected during the examination. In order to minimize the number of surgical interventions, shorten the treatment time and provide early dentition, it was planned to perform the impacted tooth operation in the same session with All-on-Four implant application. However, it was considered that the All-on-Four concept may lead to fracture formation due to high occlusal forces.Accordingly, we aimed to reduce the risk of fracture by placing a mini plate for prophylactic purposes during the surgical intervention.

Conclusion: The mandible is one of the most frequently fractured bones in the face and functional factors should be considered in the treatment process due to its mobility. Iatrogenic fractures can occur after procedures like third molar extraction or implant placement. Moreover, iatrogenic mandibular fractures may also be observed in a variety of cases that involve the extraction of impacted teeth. Although spontaneous fractures are rare, All-on-four treatment applied to the mandible may increase the risk of fracture due to high bite force.

Keywords: All on Four, Plaque Treatment

PP-091
Odontogenic Keratocyst: A Case Report

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Objective: Odontogenic Keratocyst (OKC) is a developmental, benign odontogenic cyst that originates from the remnants of the dental lamina. Due to incomplete enucleation, the thin and fragile nature of the cyst epithelium, the possibility of residual epithelial remnants after surgery, and its infiltration into the surrounding soft tissues and bone, OKC has a high recurrence rate (.

Case: A 58-year-old female patient with no systemic diseases presented to our clinic for a routine examination. A well-defined radiolucent lesion was detected on the patient's panoramic radiograph. Upon examining the patient's CBCT (Cone Beam Computed Tomography) scan, multiple independent scalloped lesions were observed in the sagittal section. The largest lesion was removed, and a treatment plan was established to monitor the remaining lesions. The biopsy results confirmed the diagnosis of an orthokeratinized odontogenic keratocyst.

Conclusion: This case highlights the importance of advanced imaging and histopathological evaluation in the diagnosis of keratocysts, emphasizing the necessity of an appropriate treatment approach. The treatment of odontogenic keratocysts remains controversial. However, various treatment modalities have been described in the literature, including enucleation, marsupialization, curettage, osteotomy, electrocautery, segmental or peripheral resection, Carnoy's solution, and cryotherapy. The selected treatment methods, along with subsequent clinical and radiographic follow-up, play a crucial role in the management of this pathology.

Keywords: CBCT; marsupialization; odontogenic keratocyst

PP-092
Sublingual Ranula: A Case Report

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Objective: Ranulas are mucus-filled cystic lesions that develop in the floor of the mouth. They occur due to trauma or obstruction of the excretory duct of the submandibular or sublingual salivary gland. Typically, they present as asymptomatic, fluctuant, bluish-colored swellings. These swellings are pseudocysts, as they lack a true cystic epithelial lining. If this accumulation occurs on the mylohyoid muscle, it is classified as a simple ranula (sublingual ranula). If it extends below and behind the mylohyoid muscle, it is called a submandibular ranula. Cases where both sublingual and submandibular ranula are present together are classified as mixed ranula.

Case: A 22-year-old female patient with no systemic diseases presented to our clinic with a complaint of a painless swelling in the sublingual region. Intraoral examination revealed a bluish, dome-shaped, soft mass on the right side of the floor of the mouth. The lesion extended from the right mandibular first molar to the sublingual caruncle at the midline.Under local anesthesia, the cystic lesion was incised and drained, followed by marsupialization, in which the cyst wall was sutured to the floor of the mouth.

Conclusion: This case highlights the importance of clinical evaluation in the diagnosis of ranula and emphasizes the necessity of an appropriate treatment approach. Various treatment methods are available for oral ranula. A simple ranula can be treated with marsupialization, incision and drainage, sclerosing agent therapy, laser cauterization, cryotherapy, or complete excision of the associated salivary gland.

Keywords: Marsupialization; ranula

PP-093
Ameloblastoma: A Case Report

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Objective: Ameloblastoma is the most common odontogenic tumor, originating from epithelial and dental tissues at various developmental stages. While benign, it exhibits a locally invasive growth pattern, leading to jaw and surrounding tissue destruction. Although metastasis is rare, its aggressive nature necessitates thorough clinical, radiological, and therapeutic evaluation for accurate diagnosis and treatment. Unicystic ameloblastoma appears as a cystic lesion resembling an odontogenic cyst but is distinguished histologically by ameloblastomatous epithelium lining part of the cyst cavity, with or without luminal and/or mural proliferation. Given its similarity to a dentigerous cyst, precise differential diagnosis using clinical, radiological, and biological features is essential.

Case: A 41-year-old male patient with no systemic disease presented to our clinic with complaints of pain and swelling in the mandibular region. Panoramic radiography revealed a radiolucent area extending from the alveolar crest to the basal mandibular region, associated with teeth 35 and 36. An incisional biopsy was performed, and histopathological examination confirmed the diagnosis of ameloblastoma. Surgical management included partial mandibulectomy and mandibular nerve transposition. The defect was reconstructed using an iliac bone graft and a reconstruction plate to restore the structural integrity of the mandible and the area was covered with a buccal myomucosal flap.

Conclusion: This case highlights the importance of advanced imaging and histopathological evaluation in diagnosing ameloblastoma, as well as the necessity of an appropriate treatment approach.Given its potential for late recurrence, lifelong follow-up is essential to minimize morbidity and ensure successful management.

Keywords: Ameloblastoma; CBCT; segmental mandibulectomy

PP-094
Lıchen Planus: A Case Report

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Objective: Lichen planus (LP) is a common autoimmune disease that affects the skin, hair, mucous membranes, and nails, originating from T lymphocytes. There are six subtypes of OLP: reticular, papular, plaque-like, erosive, atrophic, and bullous. Differential diagnoses of erosive OLP include systemic lupus erythematosus, candidiasis, benign MMPs, pemphigus vulgaris, chronic ulcerative stomatitis, erythema multiforme, frictional keratosis, lichenoid drug reactions, and lichenoid lesions. The plaque form of reticular OLP is particularly important to distinguish from leukoplakia, requiring clinical, radiological, and biological features for accurate differential diagnosis

Case: A female patient, aged 48, with a history of angioedema, presented to our clinic with complaints of white painful lesions in the oral region. During the intraoral examination, lesions compatible with Wickham striae in a lacy pattern were observed on the left commissure, buccal mucosa, and lower lip mucosa. An incisional biopsy was performed from the left commissure, confirming our preliminary diagnosis. The patient was approached with a multidisciplinary strategy and referred to the dermatology department, where corticosteroid therapy was initiated. During follow-up, it was observed that the symptoms had diminished, and the lesions were showing signs of healing.

Conclusion: This case emphasizes the importance of clinical and histopathological evaluation in the diagnosis of OLP and highlights the necessity of an appropriate treatment approach. Depending on the severity of the lesion, they can be prescribed topically or systemically. The potential for malignant transformation is still debated. Dentists play a crucial role in evaluating the initial symptoms of patients and diagnosing oral lichen planus (OLP).

Keywords: Oral lichen planus, glucocorticoids; Wickham striae

PP-095
Oral Myeloid Sarcoma: A Rare Case Report

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Objective: Myeloid sarcoma (MS) is a rare extramedullary tumor composed of immature myeloid cells, often associated with acute myeloid leukemia (AML). Isolated cases of oral myeloid sarcoma (OMS) are exceptionally rare and frequently misdiagnosed as odontogenic infections, leading to delays in treatment.

Case: We report the case of a 35-year-old male with no systemic disease, who presented with progressive extraoral swelling, mild pain, and localized lymphadenopathy. Initially misdiagnosed as a dental infection, he was advised to undergo root canal therapy and scaling. Due to persistent symptoms, he was referred to Ege University, where a biopsy confirmed myeloid sarcoma. Immunohistochemical analysis revealed CD33+, CD45+, CD117+ (weak), and c-Myc+, consistent with MS. The patient was subsequently referred to hematology-oncology for systemic evaluation and further management.

Conclusion: This case highlights the importance of early recognition of oral MS and the need for interdisciplinary collaboration between dental professionals and oncologists. Awareness of this rare entity can facilitate timely diagnosis and appropriate management, ultimately improving patient outcomes.

Keywords: Oral Myeloid Sarcoma, Hematologic Malignancy, Rare Malignancy

PP-097
Treatment of MRONJ with PRF-Assisted Sequestrectomy: A Case Report

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Objective: Medication-related osteonecrosis of the jaws (MRONJ), is a rare but serious complication of oral and maxillofacial surgery. The most common medications that cause MRONJ are antiresorptive and antiangiogenic drugs. The main treatment approaches for MRONJ are conservative and surgical treatment. Various adjunctive therapies have been applied for the treatment of MRONJ. Autologous platelet concentrates are most commonly used for this purpose.

Case: A 74 years old male patient was admitted to our clinic with pain on the left side of his lower jaw. After clinical examination of the patient, an exposed and necrotic bone area with pus drainage and ecchymotic mucosa was detected in the posterior mandible. In the anamnesis taken from the patient and his relatives, it was learned that the patient used zoledronic acid 13 years ago. It was learned that the patient had his lower left wisdom tooth extracted 3 years ago. The patient was planned to undergo sequestrectomy under local anesthesia. The necrotic bone was completely removed and socket curetted until healthy bone with blood supply was seen. Then, PRF obtained from the patient's peripheral venous blood was applied to the socket formed after sequestrectomy. The flap was mobilized and sutured to facilitate tension-free closure.

Conclusion: The patient has been under regular follow-up for 6 months and no recurrence has been observed. As a result of the postoperative clinical and radiological examination of the patient, locally applied PRF together with sequestrectomy was found to be successful in the treatment of MRONJ.

Keywords: MRONJ, PRF, Zolendronic acid

PP-098
Mandibular Hemangioma Successfully Excised After Embolization: A Case Report

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Objective: Hemangiomas are lesions that carry a serious risk of bleeding during surgical procedures due to their high vascularization. Therefore, it is very important to evaluate them with appropriate diagnostic methods before surgery and to perform preventive interventions such as embolization.

Case: A 59-year-old man's routine dental examination revealed a 20*20*20 mm unilocular radiolucent lesion with distinguishable borders in the anterior region of the left mandible. Since pressurized blood aspiration was observed in the puncture procedure, a vascular lesion was suspected, and the patient was referred to the interventional radiology department with a prediagnosis of hemangioma. After angiography, the diagnosis of hemangioma was confirmed and embolization of the main branch feeding the lesion was performed to minimize the risk of bleeding. In the surgical intervention after embolization, the lesion was completely removed in one piece. Embolization ensured a safe operation with minimal bleeding during surgery.

Conclusion: In cases where hemangiomas cannot be diagnosed, direct surgical intervention may lead to serious bleeding complications. Therefore, detailed radiologic examination and appropriate interventions should be performed before surgery. This case demonstrates that radiolucent lesions incidentally detected during dental examinations should be carefully evaluated and preoperative embolization of suspected hemangiomas plays a critical role in improving surgical safety.

Keywords: Hemangioma, Embolization, Mandible

PP-099
Unilateral Bad Split During Bilateral Sagittal Split Osteotomy: A Case Report

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Objective: This case report aims to present the management of a unilateral bad split that occurred during a bilateral sagittal split osteotomy (BSSO) performed for the treatment of a patient with skeletal Class III malocclusion.

Case: A 19-year-old male patient with no significant medical history was referred to our department due to skeletal and dental Class III malocclusion. Following an initial orthodontic treatment, bimaxillary orthognathic surgery was planned. Under general anesthesia, the maxillary advancement was performed with Le Fort I osteotomy. BSSO was performed, simultaneously. During the alignment of bony segments, restricted mobility of the proximal and distal segments on the right side was observed, although no visible bad split line was detected within the surgical field. However, based on intraoperative assessment, the presumed split line was estimated to be located posterior and superior to the distal segment. Controlled separation of the area allowed for the desired mandibular movement. The proximal and distal segments were successfully separated, and proper fixation was achieved using a titanium mini-plate while ensuring an optimal condylar position and occlusion. The postoperative course was uneventful, with no complications related to the bad split.

Conclusion: Successful management of unfavorable fractures during BSSO requires precise separation of the proximal and distal segments, proper condylar positioning, and accurate occlusal alignment to ensure favorable surgical outcomes.

Keywords: Bad split, Orthognathic surgery, Sagittal split osteotomy

PP-100
Necrosis of the Maxilla due to Trauma: A Case Report

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Objective: The aim of this study is to present a case of maxillary necrosis that developed in a patient who didn't undergo fracture fixation after trauma.

Case: A 52-year-old male patient presented to our department with complaints of pain, infection, difficulty swallowing, mobilization and loss of teeth while eating, and exposed bone areas. The patient's medical history revealed hypertension, type 2 diabetes mellitus, chronic obstructive pulmonary disease (COPD), and chronic renal failure, as well as the use of antiplatelet medication. It was learned that he had head trauma due to loss of consciousness 2 months ago. Clinical and radiological examinations revealed a nasal bone fracture, oroantral fistula and necrotic areas in the midline of the palatal region of the maxilla, tooth loss in the anterior maxilla, and exposed bone areas. Vitality testing showed that the teeth on the fractured segment responded as non-vital. Despite receiving 8 sessions of hyperbaric oxygen therapy, no improvement was observed in the necrotic area. Following a consultation with the Chest Diseases Department, hyperbaric oxygen therapy was discontinued due to the progression of COPD. Considering the patient's systemic conditions, he was referred to the Otorhinolaryngology Department of a fully equipped hospital for maxillectomy to ensure a multidisciplinary approach to treatment and better postoperative follow-up.

Conclusion: Delayed fixation after trauma can lead to extensive necrotic areas in the jaws. To prevent such complications, it is recommended that fractures be fixed promptly.

Keywords: Maxilla, Necrosis, Trauma

PP-101
Treatment of Pleomorphic Adenoma Localized in Palate: A Case Report

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Objective: Pleomorphic adenoma is the most common tumor of the salivary glands. Pleomorphic adenomas originating from the major salivary glands are most commonly localized in the parotid gland and rarely in the sublingual salivary glands, and those originating from the minor salivary glands are most commonly localized in the palate. This case report presents the surgical treatment of pleomorphic adenoma localized in the palate.

Case: A 26-year-old female patient applied to the Necmettin Erbakan University, Faculty of Dentistry, Oral and Maxillofacial Surgery Clinic, complaining of swelling in the palate. During the patient's examination, swelling was observed in the left palatal molar region. As a result of the incisional biopsy, it was learned that the lesion was a pleomorphic adenoma. The entire lesion was removed under general anesthesia. The histopathological result of the removed lesion confirmed the initial diagnosis. No complications were encountered during the patient's follow-up.

Conclusion: Although pleomorphic adenoma is benign, it may show recurrence or malignant transformation. Therefore, after the lesion is diagnosed, it should be surgically removed, and the patient should be followed up for a long time.

Keywords: hard palate, pleomorphic adenoma, salivary gland neoplasms

PP-102
Surgical Management of Bilateral Condylar Head Fracture: A Case Report

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Objective: Condylar head fractures are serious maxillofacial traumas that can significantly affect temporomandibular joint (TMJ) movements and dental occlusion. This case report aims to emphasize the efficacy of surgical treatment in the management of bilateral condylar head fractures.

Case: In this case report, a 22-year-old male patient was admitted to our clinic with complaints of pain in the TMJ area and limited mouth opening after a fall from a bicycle. As a result of clinical evaluation and radiographic examinations, a bilateral displaced condylar caput fracture was detected. In the treatment planning, it was decided to manage with open reduction to provide functional and anatomical healing of the patient. After the TMJ capsule was identified and opened with the endural approach, the condyle was reached. Then, the medially displaced fragments were stabilized with titanium micro-plates and micro-screws to provide rigid fixation after being brought to their normal position. In the postoperative period, the patient was recommended a soft diet and inter-maxillary fixation was not applied.

Conclusion: Surgical approach in the management of displaced condylar caput fractures provides the patient with early jaw function and improves the quality of life. Long-term complications such as bone ankylosis can also be prevented with surgical treatment.

Keywords: Condylar head fracture, open reduction, maxillofacial trauma

PP-103
Surgical Excision of an Upper Lip Cavernous Hemangioma in a 65-Year-Old Patient: A Case Report and Review of Treatment Options

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Objective: Cavernous hemangiomas are benign vascular tumors most commonly observed in the pediatric population. Although 60 to 70 percent of hemangiomas are localized in the head and neck region, their occurrence in the oral cavity is rare and represents less than 1 percent of all intraoral lesions. Among intraoral locations, the lips are the most frequently affected sites, with the lower lip being more commonly involved. This case report aims to present the clinical, surgical, and histopathological features of a cavernous hemangioma located on the upper lip mucosa in an adult patient.

Case: A 65-year-old female patient presented with a painless swelling on the upper lip that had been present for three years. Clinical examination revealed a 1.5 cm, soft-elastic, bluish-purple, non-pulsatile mass on the upper lip mucosa. There was no history of trauma, bleeding, or infection. The lesion was surgically excised under local anesthesia and submitted for histopathological analysis, which confirmed the diagnosis of cavernous hemangioma. Postoperative recovery was uneventful. At follow-up, the surgical site showed satisfactory healing without recurrence.

Conclusion: Although uncommon in adults, cavernous hemangiomas should be considered in the differential diagnosis of upper lip lesions. Surgical excision is the preferred treatment for well-localized lesions due to its high success rate, low recurrence, and favorable esthetic and functional outcomes. Alternative treatments such as laser therapy, sclerotherapy, or pharmacologic agents may be appropriate in select cases. This case highlights a rare presentation of upper lip cavernous hemangioma and supports surgical excision as a safe and effective management option.

Keywords: Benign vascular tumor, Cavernous hemangioma, Oral vascular lesion

PP-104
An Epstein–Barr Virus–Associated Oral Lesion Mimicking Periodontal Disease in a 5-Year-Old Child: A Rare Case Report

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Objective: Epstein–Barr virus (EBV) is a herpesvirus that primarily establishes latency in B lymphocytes. In childhood, EBV infection is usually asymptomatic, and when oral manifestations occur, they most commonly present as oral hairy leukoplakia, lymphoid hyperplasia, or nonspecific ulcerations. These lesions are often misdiagnosed, especially since EBV-associated pathologies are typically reported in immunosuppressed or adult individuals. This case presents a rare EBV-related oral lesion in a 5-year-old child with developmental delay, clinically resembling periodontal disease.

Case: A 5-year-old child presented to the Department of Oral and Maxillofacial Surgery at Hacettepe University with complaints of spontaneous exfoliation of primary teeth, chewing difficulty, and generalized gingival bleeding. Intraoral examination revealed erythematous, ulcerated, and desquamative gingiva with Grade 3 mobility in most remaining primary teeth. Radiographic evaluation showed generalized and severe alveolar bone loss in both jaws, extending to the level of developing permanent tooth germs. Tooth 73 was extracted under general anesthesia, and an incisional biopsy was obtained from the socket. Histopathology revealed inflammatory cell infiltration. Chromogenic in situ hybridization (CISH) showed EBER positivity, confirming EBV presence. The patient was referred to the Department of Infectious Diseases and is currently under acyclovir treatment. Genetic, immunological, and rheumatologic screening did not reveal any findings suggestive of immunosuppression or systemic syndromes.

Conclusion: This case emphasizes the importance of considering EBV infection in the differential diagnosis of atypical oral lesions in pediatric patients. EBV may directly affect the oral mucosa, even in immunocompetent children, and could potentially indicate underlying systemic conditions.

Keywords: *ebstein-barr virus, pediatric oral lesion, periodontal destruction*

PP-105
A Rare Occurrence of Intraosseous Schwannoma of the Maxilla: Case Report

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Objective: Schwannoma is a benign tumor originating from the nerve sheath. They are rarely seen in the oral cavity, the tongue being the most common site in this region. Although usually found in the soft tissues, it can occur in bone, which usually exists as a well-defined radiolucency. It usually occurs as an asymptomatic, solitary, slow-growing lesion, emerging at any age with no gender prediction. Diagnosis is made by histological examination, and the treatment is surgical lesion excision. This report presents a rare case of intraosseous schwannoma in the anterior maxilla.

Case: A 13-year-old male patient is referred to Ege University School of Dentistry for dental treatment. Radiographic examination revealed an intraosseous, unilocular, well-defined, radiolucent lesion with minimal enlargement of the buccal cortex, localized between the roots of teeth number 13-14. The preliminary diagnosis was an odontogenic cyst. An excisional biopsy is performed to confirm the diagnosis. The sample analysis showed diffuse positive with S-100 proteins and negative for Ki-67 (%4) that interpreted as schwannoma. Healing of the defect is observed in a panoramic radiograph taken 6 months after surgery.

Conclusion: The understanding of intraosseous schwannoma continues to expand. A comprehensive knowledge of these tumors' pathogenesis may contribute to informed treatment decisions for patients.

Keywords: Neurogenic, Schwannoma, Tumor

PP-106
Management of Facial Paralysis Following Open Reduction of Bilateral Condylar Fractures with Low-Level Laser Therapy: A Case Report

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Objective: Temporomandibular joint (TMJ) fractures are common in maxillofacial trauma and may lead to significant functional impairments. Open reduction is often required for displaced fractures; however, this procedure carries potential complications such as malocclusion, facial paralysis, and limited mouth opening. This case report presents the management of postoperative facial paralysis following bilateral condylar fracture surgery and evaluates the effectiveness of low-level laser therapy (LLLT) in promoting nerve regeneration and functional recovery.

Case: A 41-year-old systemically healthy male patient presented to our clinic with facial paralysis, malocclusion, and anterior open bite. Clinical and radiographic examinations confirmed findings. Extraoral laser treatment was administered using a gallium-aluminum-arsenide (GaAlAs) diode laser with a wavelength range of 660–830 nm and an output power of 1.0 W. Photobiomodulation (PBM) with LLLT was applied to the affected side three times a week for six consecutive weeks. The patient was also prescribed steroids and received manual therapy in conjunction with physical therapy. Subsequent evaluations demonstrated improved mouth opening and sensory function.

Conclusion: The findings suggest that LLLT, when combined with steroid therapy and manual rehabilitation, may effectively enhance facial muscle function and symmetry in patients with facial paralysis. Its non-invasive nature and ease of application support its use as a promising therapeutic option for facial nerve recovery.

Keywords: Facial paralysis, Low-level laser therapy

PP-107
Osteoid Osteoma in the Mandible: A Rare Case Report

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Objective: Osteoid osteoma is a benign bone tumor characterized by small size, and often nocturnal pain that typically responds well to non-steroidal anti-inflammatory drugs (NSAIDs). Although it can occur in any bone, it rarely affects the jaw, and mostly reported in the mandible. It usually appears in the second or third decade of life and is uncommon in older individuals.

Case: A 64-year-old female patient presented with a six-day history of localized severe pain and inability to use her mandibular removable partial denture due to a firm, palpable swelling in the edentulous posterior mandible. Medical history revealed hyperthyroidism and a previous spinal bone biopsy with no available pathology reported. Initial panoramic radiography showed no clear evidence of a lesion. However, cone-beam computed tomography (CBCT) revealed an exophytic lesion on the buccal side of the posterior left mandible, showing similar radiopacity to cortical bone. An excisional biopsy was performed under local anesthesia. Histopathological evaluation confirmed the diagnosis of osteoid osteoma.

Conclusion: Osteoid osteoma is extremely rare in mandible, especially in older patients. It may mimic other jaw pathologies. It should be considered in the differential diagnosis of localized jaw pain with swelling. Early imaging and histopathological confirmation are crucial for accurate diagnosis and effective treatment.

Keywords: Bone tumor, case report, osteoid osteoma

PP-108
Simultaneous Occurrence of Odontogenic Keratocyst and Radicular Cyst in the Maxilla: A Rare Case Report

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Objective: Odontogenic cysts are frequently encountered in the jaws; however, the simultaneous occurrence of two distinct cyst types in the same anatomical region is extremely rare. While radicular cysts are inflammatory lesions resulting from pulp necrosis, odontogenic keratocysts are developmental in nature and characterized by aggressive behavior and a high recurrence rate. Radiographic differentiation between these cysts can be difficult due to overlapping features.

Case: A 30-year-old systemically healthy male presented with swelling in the left maxilla and a persistent bad taste. Radiographic imaging revealed a radiolucent lesion extending from tooth 21 to 26, with buccal cortical bone resorption, perforation, and superior displacement of the maxillary sinus floor. Teeth 21,23, and 24 were non-vital and treated endodontically prior to surgery. Under general anesthesia, the lesion was surgically enucleated. Intraoperatively, two distinct cystic lesions were identified: a fragile, thin epithelial-lined cyst between teeth 21–23, and a thicker epithelial-lined lesion between teeth 24–26. Histopathological examination confirmed the presence of an odontogenic keratocyst anteriorly and a radicular cyst posteriorly.

Conclusion: This case highlights a rare presentation involving the coexistence of two different odontogenic cyst types in the same region. Relying solely on radiographic findings may lead to misdiagnosis. A multidisciplinary diagnostic approach—combining clinical, radiological, and histopathological assessments—is essential to ensure accurate diagnosis and optimal treatment outcomes.

Keywords: Odontogenic cysts, Keratocyst, Radicular cyst

PP-109
Recurrent Mandibular Neurofibroma in a 12-Year-Old Male: A Case Report

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Objective: Neurofibromatosis type 1 (NF1) is a genetic disorder characterized by peripheral nerve sheath tumors. Although rare in the mandible, these lesions present significant diagnostic and therapeutic challenges. This case report describes the clinical and surgical management of a recurrent mandibular neurofibroma in a 12-year-old male patient.

Case: The patient's medical history revealed a lesion in the left mandibular posterior region associated with an impacted tooth (#37), which was excised in 2021. However, the tooth failed to erupt spontaneously during a two-year follow-up period. In 2022, recurrence of the lesion necessitated a second surgical excision, during which a gold chain was bonded to tooth #37. Upon referral to our clinic, intraoral examination revealed mucosa coloured swelling from mandibular left premolar to ascending ramus area. Subsequently, on August 14, 2024, under general anesthesia, we performed surgical excision of a fibrotic, solid lesion measuring 3.1 × 1.7 × 1.3 cm, associated with the follicle of the impacted tooth (#37). The tooth was extracted, and the areas over teeth #34 and #35 were surgically exposed.

Conclusion: Histopathological analysis confirmed the lesion as neurofibroma. Six month follow up showed no sign of recurrence. The recurrent nature of the lesion highlights the challenges in managing neurofibromas in the head and neck area. Regular clinical and radiological follow-up is crucial to minimize recurrence risk and determine the optimal treatment approach.

Keywords: Mandibular neurofibroma, Neurofibromatosis type 1 (NF1)

PP-110
Multiple Odontomas in Buccal Mucosa: A Case Report

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Introduction: Odontomas are the most common benign odontogenic tumors, typically characterized by the abnormal growth of dental tissues. These lesions are composed of enamel, dentin, and cementum, and can be classified into two main types: compound and complex odontomas. Odontomas are often asymptomatic and discovered incidentally during routine radiographic examinations. Despite their benign nature, they can cause complications such as delayed eruption of adjacent teeth, impaction, or the development of cyst. Surgical removal is the primary treatment modality, and prognosis is generally favorable. Recurrence is rare, and regular follow-up is recommended to monitor any potential complications.

Case Report: In our case, 56 years old female patient was consultate to our department by Hacettepe University Department of Oral and Maxillofacial Radiology as a result of patient's routine radiographic examination. Lots of calcified focuses were seen in buccal mucosa near by the right upper first molar and zygomatic bone in CBCT examination. Our treatment plan was extraction of right upper first molar and dissection of the buccal mucosa and reach the focal areas. After pathological examination removed calcified focuses were determined as odontomas.

Result: Odontomas are mostly seen in jaw bones but sometimes can be seen in soft tissues espacially in gingiva. ın our case odontomas were seen in upper buccal mucosa around the Parotid duct. Odontomas should be considered in the differential diagnosis of calcified tissue pathologies observed around the parotid duct.

Keywords: 1, 2, 3

PP-111
Augmentation of Keratinized Mucosa Using a Palatal Free Gingival Graft Prior to Prosthetic Rehabilitation: A Case Report

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Objective: This case report aims to present the clinical approach and outcomes of augmenting keratinized mucosa using a palatal free gingival graft (FGG) before prosthetic loading of posterior mandibular implants. Additionally, it highlights the effective use of a composite palatal stent that eliminated postoperative pain during early healing.

Case Presentation: A 62-year-old systemically healthy female received two dental implants in the mandibular premolar-molar region. Due to insufficient keratinized mucosa, a free gingival graft was harvested from the palate and applied to the buccal aspect. A custom-fabricated stent using flowable composite was placed over the donor site postoperatively. The recipient site was prepared with a split-thickness flap, apically repositioned and sutured. The graft was thinned and fixed with 6.0 non-resorbable sutures. The palatal stent was stabilized with silk sutures to reduce trauma. The patient received antibiotics, anti-inflammatories, and a chlorhexidine rinse. On postoperative day 3, the stent was removed painlessly, and epithelialization had begun. The patient reported no pain during this period.

Results: At 6 weeks, complete healing was observed at both donor and recipient sites, with sufficient keratinized mucosa for prosthetic restoration.

Conclusion: Palatal FGG is a reliable and effective method to increase keratinized tissue width in implant cases. Moreover, the use of a custom-made composite palatal stent significantly enhanced patient comfort by completely preventing postoperative pain in the early healing phase, which is typically characterized by high morbidity. This simple and minimally invasive approach offers an important adjunct to soft tissue grafting procedures.

Keywords: Free gingival graft, keratinized mucosa, composite stent soft tissue grafting

PP-112
Management of a Large Radicular Cyst Involving the Maxillary Sinus: A Combined Approach of Marsupialization and Enucleation

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Objective: This case report aims to present the diagnosis and staged surgical management of an unusually large radicular cyst extending into the maxillary sinus, using a conservative marsupialization approach followed by enucleation.

Materials-Methods: A 23-year-old female patient presented with pain and swelling in the left buccal region. Panoramic radiography and CBCT imaging revealed a large unilocular radiolucent lesion involving the left maxillary sinus, associated with a non-vital first molar. Marsupialization was initially performed to reduce the lesion's size and intracystic pressure due to its proximity to critical anatomical structures. After 12 months of follow-up and significant cyst regression, enucleation and curettage were performed under general anesthesia. The surgical defect was reconstructed using a buccal fat pad flap.

Results: Radiographic follow-up demonstrated progressive reduction in cyst size, partial regeneration of the sinus cavity, and successful healing with no recurrence. Histopathological examination confirmed the diagnosis of a radicular cyst. The use of a buccal fat pad ensured tension-free primary closure and minimized postoperative complications.

Conclusion: This case highlights the effectiveness of a staged conservative approach in managing large radicular cysts involving the maxillary sinus. Marsupialization followed by enucleation offers a safe and predictable outcome while preserving surrounding anatomical structures. CBCT played a critical role in diagnosis and surgical planning.

Keywords: Radicular cyst; Marsupialization; Enucleation; Maxillary sinüs; Buccal fat pad

PP-113
Removal of Compound Odontoma and Simultaneous Horizontal Ridge Augmentation Using Chin Block Graft: A Case Report

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Objective: This case report aims to present a unique approach to the simultaneous removal of compound odontomas from the maxillary midline and horizontal ridge augmentation using a symphyseal block graft, enabling implant-supported fixed prosthetic rehabilitation in a completely edentulous patient.

Case: A 42-year-old systemically healthy male presented with a request for fixed prosthetic rehabilitation. Radiographic examination (OPG and CBCT) revealed two compound odontomas in the midline of the maxilla and insufficient horizontal bone width for implant placement. Under general anesthesia, the nasal mucosa was carefully elevated using a nasal and periosteal elevator to mobilize the odontomas. The lesions were gently displaced from the nasal cavity into the oral cavity, allowing for their removal without disrupting the nasal lining or damaging the palatal bone. Horizontal augmentation of the maxilla was achieved using a symphyseal block graft, fixated in place and supported with PRF-enriched particulate xenograft. Following a 5-month healing period, dental implants were successfully placed. After 3 months of osseointegration, prosthetic restorations were completed without complications.

Conclusion: This case demonstrates a minimally invasive and efficient surgical technique for removing midline odontomas while preserving the nasal floor. The combination of block grafting and PRF-enhanced augmentation enabled predictable ridge development, resulting in successful implant placement and prosthetic rehabilitation.

Keywords: Compound odontoma, nasal floor elevation, horizontal augmentation PRF

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BERKAN ALTAY

Dr. Berkan Altay was born in 1991 in Ankara. He completed his education at Kırıkkale University Faculty of Dentistry, graduating in 2015. Following his graduation, he worked as a general dentist at Yozgat Çekerek State Hospital. In 2016, he began his residency in Oral and Maxillofacial Surgery at Kırıkkale University Faculty of Dentistry and successfully completed his specialty training in 2020.

Between 2020 and 2023, Dr. Altay served as a faculty member at Kütahya Health Sciences University, Faculty of Dentistry, Department of Oral and Maxillofacial Surgery. During this period, he held multiple administrative positions, including Department Chair (2021-2023) and Deputy Chief Physician at the Oral and Dental Health Application and Research Center (2020-2023). In 2023, he was appointed as a faculty member and Chair of the Department of Oral and Maxillofacial Surgery at Kırıkkale University Faculty of Dentistry, where he continues his academic and clinical work.

Dr. Altay has authored numerous scientific articles published in both internationally indexed journals and national publications. His primary areas of interest include temporomandibular joint disorders and surgery, orthognathic surgery, advanced implantology, maxillofacial trauma, and oral pathology. He is a member of several professional organizations, including the International Association of Oral and Maxillofacial Surgeons (IAOMS) and the Turkish Association of Oral and Maxillofacial Surgery (AÇBİD).

Surgical Management of Recurrent TMJ Dislocation: A Modified Eminoplasty Technique

Recurrent temporomandibular joint (TMJ) dislocation is a pathological condition characterized by recurrent, non-self-limiting displacement of the mandibular condyle beyond the articular eminence, leading to difficulties in returning the condyle to its physiological position within the glenoid fossa. This recurrent condylar hypermobility alters joint biomechanics, contributing to functional impairment, masticatory inefficiency, and chronic orofacial pain.

Despite the availability of conservative management strategies, including physical therapy, occlusal splints, and botulinum toxin injections, surgical intervention remains the definitive approach for patients with persistent dislocations. A variety of surgical techniques have been employed to enhance joint stability, including eminectomy, Dautrey's procedure, and glenotemporal osteotomy. While these procedures aim to prevent condylar hypertranslation and restore joint stability, they vary significantly in terms of surgical complexity, long-term success, and associated risks. This presentation will provide a critical analysis of these techniques, discussing their indications, clinical outcomes, and potential complications, offering a comparative perspective on their effectiveness in preventing recurrence.

Additionally, a modified eminoplasty technique will be introduced, which has been successfully implemented in two clinical cases. This technique involves precise reshaping and augmentation of the articular eminence to create a structural barrier, thereby limiting excessive anterior translation of the mandibular condyle. While the preliminary results are promising, the limited number of cases precludes a direct comparative analysis with existing surgical modalities. Further studies with larger patient cohorts and long-term follow-ups are necessary to establish the efficacy and reliability of this modified approach.

Through an evidence-based discussion supported by clinical and radiographic findings, this presentation aims to contribute to the ongoing discourse on optimizing the surgical management of recurrent TMJ dislocation. By evaluating both established and emerging techniques, this presentation seeks to enhance clinical decision-making and improve long-term patient outcomes in the management of this challenging condition.

BUSEHAN BİLGİN

Upon initially graduating with first-class honors degree in dentistry from Başkent University in 2017 Dr Bilgin, awarded specialist degree in Oral and Maxillofacial Surgery from Faculty of Dentistry, Akdeniz University in 2023. She still works in the Oral and Maxillofacial Surgery department at Akdeniz University.

Dr. Bilgin's areas of clinical and research interest are dental implantology, TMJ, oral diseases, surgical anatomy, oral pathology, orthognatic surgery, oral medicine, maxillofacial abnormalities, craniomandibular disorders and maxillofacial trauma. She has several publications in the peer reviewed literature. Also she is a member of ACBID (The Oral and Maxillofacial Surgery Society Association, Turkey).

The Supporting Role Of Endoscopy In Condylar Surgeries

The use of endoscopic surgical instruments in the oral and maxillofacial field has become increasingly widespread. Endoscopic techniques, particularly in temporomandibular joint (TMJ) surgery, condylar fractures, maxillary sinus pathologies, and orthognathic surgery, offer minimally invasive approaches that may improve surgical outcomes. This presentation aims to highlight the role of endoscopic techniques in TMJ surgery, emphasizing their advantages over conventional methods.

Condylar surgeries require precision due to the anatomical complexity of the region and the need for functional restoration in maxillofacial surgery. Traditional open surgical approaches provide direct visualization; however, they are often associated with extensive soft tissue dissection, an increased risk of facial nerve injury, and postoperative complications due to soft tissue dissection. The endoscopic-assisted condylar approach has emerged as a minimally invasive alternative for limited procedures, offering sufficient visualization while reducing morbidity by minimizing the dissection area and enhancing surgical outcomes.

This presentation aims to present the use of an endoscope to support open reduction and internal fixation in patients referred to our department with condylar fractures with different levels. All surgeries were planned under general anesthesia. Following intermaxillary fixation, the fracture line was visualized with the aid of an endoscope and positioned intraorally.

Additionally, through an extraoral approach, access to the superior compartment of the fracture line was achieved via a smaller incision compared to traditional methods. The fractured segment was accurately repositioned, after which a titanium plate was placed intraorally. Fixation was performed via a trocar hole under endoscopic guidance. The postoperative period was uneventful, and healing progressed without complications.

This presentation highlights the effectiveness of endoscopic-assisted procedures in the management of TMJ surgeries. Minimizing surgical exposure helps preserve critical structures, such as the facial nerve, while improving TMJ disc preservation and reducing damage compared to traditional open joint surgery.

EDA NAİFOĞLU YİĞİT

Dr. Eda Naifoğlu Yiğit was born in Ankara in 1987. She completed her undergraduate education with a scholarship at Başkent University Faculty of Dentistry between 2007-2012. She completed her doctorate at Ankara University Faculty of Dentistry, Department of Oral and Maxillofacial Surgery in 2018. She worked as an assistant professor at Istanbul Okan University Faculty of Dentistry, Department of Oral and Maxillofacial Surgery between 2018-2020. She has been working as an assistant professor at Istanbul Kent University since 2025.

Tooth loss causes problems in aesthetic, disability in speech and chewing function which significantly reduces quality of life. Today, dental implants have become a successful treatment option routinely used in the treatment of missing teeth deficiency. However, inadequate bone height is an important limiting factor for implant therapy. Although bone augmentation techniques have successful results, they are not always applicable as they increase the risk of complications and duration of treatment.

In patients with severe vertical bone atrophy, the commonly preferred treatment options are zygomatic implants, pterigoid implants, subperiosteal implants and the All-on-4® concept expecially when a bone augmentation procedure is not planned. Zygoma implants, receive anchorage from zygomatic bone. Pterygoid implants enhancing posterior support. Subperiosteal implants, once obsolete, are now viable due to digital planning advancements. All-on-4® concept allows appliance of fixed prosthetic restorations by using 4 implants which are placed 2 axillar in anterior and 2 distally tilted in posterior.

The aim of this study is to evaluate the zygomatik implants and All-on-4® concepts in patients with moderate to severe bone atrophy in posterior maxilla when a bone augmentation procedure is not planned.

In this study, a model consisting of maxilla and zygomatic bones was created and finite element stress analysis was performed on different zygomatic implants and All-on-4® concepts. The bite force was defined and applied to different points on the bar which represents the prosthetic superstructure. Von Mises stress values of all models were compared.

The review the results for all loads, higher stress was generated in the models with zygomatic implants than All-on-4® models. Increased inter-implant distance in the All-on-4® models, has reduced the bone stress. When anterior implants were tilted 45°, longer implants could be applied in this region and von Mises stress values in the alveolar bone decreased

EREN PERA

Dr. Eren Pera, DDS, OMFS, MSc is a leading oral and maxillofacial surgeon in Turkey, specializing in dental implantology, zygomatic implants, orthognathic surgery, TMJ surgery, and facial aesthetics. His career reflects a commitment to excellence and patient-centered care.

Dr. Pera's medical journey began at Hacettepe University's Dentistry Faculty (2008–2013), followed by specialization in Oral and Maxillofacial Surgery at Ankara University (2016–2021). During this time, he gained expertise through rotations in anesthesiology, emergency medicine, plastic surgery, and ENT, refining his approach to oral and facial surgery.

He started his professional career at Koru Hospital in Ankara in 2021, later joining Memorial Hospital in Istanbul in 2022. His reputation for surgical excellence continued to grow, leading him to establish Hospitaprime in March 2023. As the founder and medical director, Dr. Pera built a cutting-edge clinic specializing in advanced treatments, including zygomatic implants. Hospitaprime is Istanbul's first and only certified ZAGA Center, recognized for its expertise in zygomatic implant solutions for patients with severe maxillary atrophy.

Dr. Pera's work has set new standards in dental surgery, combining advanced technology with personalized patient care, making him a pioneer in his field.

Orthognathic Solutions for Orthodontically Compensated Patients: Challenges and Strategies

Background: Patients with underlying skeletal discrepancies often seek orthodontic compensation to get a better occlusion and a more pleasing appearance. Although this offers temporary stability, it often camouflages the real skeletal discrepancy, which later has functional and aesthetic problems. Orthognathic surgery is required to correct these discrepancies and achieve long-term stability, facial harmony, and improved function.

Objective: This presentation considers the difficulties and the approach in treating orthodontically compensated patients with orthognathic surgery. Through emphasis on case selection, surgical planning, and outcomes after surgery, this presentation will attempt to serve as a reliable guide for obtaining predictable results.

Methods: Three clinical cases will be presented, highlighting:

The importance of pre-surgical assesment in revealing true skeletal discrepancies.

Tailored surgical techniques to restore ideal skeletal and dental relationships

Post-surgical outcomes, including occlusion, facial balance, and airway function

Results: All three cases indicated a marked difference in facial appearance, occlusal function and airway size. The results presented here stress the importance of thorough diagnostic assessment , 3D digital pre-planning and teamwork between orthodontist and surgeon for treatment optimization.

Conclusion: Successful treatment of orthodontically compensated patients requires a multidisciplinary approach, strategic decompensation with tailored surgical techniques and careful postoperative management regarding these patients' long-term success. The presentation will provide some insight into the decision-making process, potential challenges, and key takeaways that can benefit both the functional and aesthetic outcomes of treatment.

MELİS HAYDARPAŞA YALÇIN

Dr. Melis Haydarpaşa Yalçın graduated from Yeditepe University, Faculty of Dentistry, in 2016. Between 2016 and 2018, she worked in private settings in Istanbul. In 2018, Dr. Haydarpaşa Yalçın began her postgraduate education in the Department of Oral and Maxillofacial Surgery at Bezmialem Vakıf University, completed her PhD in 2022. Currently, Dr. Haydarpaşa Yalçın is a full-time faculty member in the Department of Oral and Maxillofacial Surgery at Bahçeşehir University, School of Dental Medicine

Managing growing patients with severe developmental jaw abnormalities presents a significant challenge due to the dynamic nature of facial growth. While many clinicians hesitate to recommend surgical intervention at an early age, delaying treatment can exacerbate functional impairments such as mastication, swallowing, breathing, and speech, as well as psychological distress. In select cases, early orthognathic surgery may provide a stable and predictable outcome, mitigating these issues while harmonizing skeletal and soft tissue relationships. However, the decision to proceed with surgical intervention must be guided by a thorough understanding of craniofacial growth patterns and the potential impact of surgery on subsequent development.

This presentation highlights the key considerations in determining the appropriate timing and surgical approach for growing patients with severe jaw discrepancies. Distinguishing between congenital deficiencies that progress and require urgent intervention versus developmental abnormalities that can be addressed later is crucial for optimizing patient outcomes. By integrating orthodontic and surgical strategies, early intervention can enhance function and facial aesthetics while minimizing the need for complex procedures in adulthood. A multidisciplinary approach is essential to ensure long-term stability and predictability in treatment outcomes for these patients.

METEHAN KESKİN

I graduated from the Faculty of Dentistry at Ankara University in 2014. In 2015, I began my professional career as a dentist at the Ministry of Health. In 2016, I started my specialization training in the Department of Oral, Dental, and Maxillofacial Surgery at Ondokuz Mayıs University Faculty of Dentistry, which I successfully completed in 2020.

Following my specialization, I continued my duties at the Ministry of Health. Since 2021, I have been continuing my academic career at the Faculty of Dentistry at Ondokuz Mayıs University.

Digital transformation has revolutionized numerous medical disciplines, including maxillofacial surgery. Technological advancements have significantly enhanced precision, efficiency, and overall patient outcomes.

The transition from traditional methods to digital workflows has provided substantial benefits, including improved accuracy, reduced surgical time, and enhanced communication between surgeons and patients. Various digital tools, such as intraoral and facial scanners, computed tomography (CT), cone beam computed tomography (CBCT), and computer-aided design/computer-aided manufacturing (CAD/CAM) software, have introduced innovative alternatives to manual processes. By incorporating these technologies, clinicians can enhance diagnosis, optimize treatment planning, and execute surgeries with greater precision, ultimately leading to superior patient outcomes.

Virtual Surgical Planning (VSP) software has made the integration of digital solutions into maxillofacial surgery possible. VSP encompasses key areas such as medical imaging and 3D reconstruction, surgical simulation, CAD/CAM, surgical navigation and augmented reality, and interdisciplinary collaboration. This software enables surgeons to visualize complex anatomical structures in three dimensions, simulate surgical procedures, and develop customized treatment plans tailored to individual patient needs.

These applications can be implemented using commercial and open-source software, each offering unique features and functionalities tailored to different surgical requirements. Commercial software solutions provide user-friendly interfaces, regulatory compliance, and professional support. These advantages make them ideal for clinical settings, although they often come with high costs and limited customization options. In contrast, open-source software offers flexibility, cost-effectiveness, and adaptability for research and academic purposes. While open-source tools require more technical expertise, they provide opportunities for innovation and collaborative development within the surgical community.

While both software types have their respective advantages, the choice depends on factors such as cost, usability, customization needs, and clinical application.

This presentation aims to explore the impact of digital transformation in maxillofacial surgery, specifically focusing on the role of Virtual Surgical Planning (VSP) software.

MİZGİN ÇAPLIK

Mizgin Çaplık graduated from Gaziantep University Faculty of Dentistry in 2017. In 2020, she began her specialty training in the Department of Oral and Maxillofacial Surgery, Clinical Sciences Division, at Dicle University Faculty of Dentistry and, as of 2025, earned the title of Oral and Maxillofacial Surgeon (OMFS).

During her specialty training, she worked on various clinical cases in the field of maxillofacial surgery and conducted scientific research. She has also contributed as an author to internationally published book chapters.

Effect of Systemic Diseases on Implant Stability: Hypertension and Diabetes

With advancements in medicine and technology, life expectancy has increased, leading to a rise in chronic diseases such as hypertension and diabetes. These conditions and their treatments may affect dental implant stability and osseointegration.

This study evaluated the effects of hypertension and diabetes on implant stability in 120 edentulous mandible patients aged 50 and over, treated at Dicle University. Patients were divided into four groups: hypertension (HT), diabetes (DM), hypertension & diabetes (HT&DM), and a healthy control group (n=30 each). Two implants were placed in the anterior mandible, and implant stability values (ISQ) were measured at placement and at the 12th week using resonance frequency analysis (RFA).

The mean initial ISQ values were 76.15 (HT), 75.74 (DM), 75.34 (HT&DM), and 77.26 (control). At week 12, values increased to 76.92, 76.42, 76.13, and 78.16, respectively. The ISQ increase in all groups was statistically significant ($p < 0.001$). The control group showed the highest initial stability, while the HT&DM group had the lowest. At week 12, antihypertensive and glycemic control appeared to positively influence osseointegration.

This study highlights the impact of hypertension, diabetes, and their treatments on implant stability, emphasizing the importance of proper medical management in improving implant success.

Keywords: Dental implant, hypertension, diabetes

SALİH EREN MERAL

Dr.Meral graduated from Hacettepe University, Faculty of Dentistry in 2012. In 2013, he began his residency program in Oral and Maxillofacial Surgery at Hacettepe University, completing his residency in 2018. Currently, he works as an Assistant Professor in the Department of Oral and Maxillofacial Surgery at Hacettepe University Faculty of Dentistry. His primary clinical and research interests include dental implantology, orthognathic surgery, and temporomandibular joint disorders. He has published several articles in peer-reviewed journals indexed in the Science Citation Index (SCI) and Web of Science.

Orthognathic surgeries aim to correct facial asymmetry and improve the harmony of facial features. Among the various procedures performed on the mandible, sagittal split ramus osteotomy is a well-recognized and beneficial approach mainly favored over other options. SSROs inherently require the mandible to be divided into distal and proximal segments. Typically, patients' concerns focus on the distal part of the mandible, which is essential for achieving the desired results in facial harmony. On the other hand, the stability of the proximal segment is indispensable for surgeons. A primary concern is its potential impact on postoperative stability and clinical outcomes arising from the remodeling and resorption processes observed in the condyles. Due to the native asymmetrical situation, the biomechanics of the condylar segments differ from those of the contralateral side, and the postoperatively acquired biomechanics have an adaptation phase. Condylar remodeling describes the physiological balance between bone resorption and formation, allowing the TMJ to adjust to the new biomechanics of the condyle position. However, at certain points, the biomechanical load exceeded the condyle’s inherent capacity for adaptation, causing the remodeling process to shift toward condylar resorption. This resorptive process decreases condylar volume and mass, leading to irreversible and progressive deterioration of the condyle's morphology. Even though the remodulation is a multifactorial process and shows significant variability among individuals, clinicians should consider possible effects after SSRO.

SELAHADDİN BAŞYILDIZ

Selahaddin Başyıldız graduated from Cumhuriyet University Faculty of Dentistry, Sivas, Turkey, in 2019. He stayed Bezmialem Vakıf university for her postgraduate degree in Oral and Maxillofacial Surgery and earned specialty degrees in 2024. He worked as a specialist at Bezmialem Vakif University. Him research interests include orthognathic surgery, oral and maxillofacial pathology, and dental implantology.

The pterygomaxillary junction (PMJ) plays a crucial role in maxillary expansion, particularly in Surgically Assisted Rapid Palatal Expansion (SARPE). As a key resistance point, the PMJ influences the extent and symmetry of expansion. Understanding its anatomical structure is essential for optimizing surgical outcomes and minimizing complications.

The PMJ is composed of the maxillary tuberosity and the pterygoid plates of the sphenoid bone. These structures provide significant resistance to maxillary expansion, particularly in skeletally mature patients where the midpalatal suture has fused. Failure to properly separate the PMJ can lead to asymmetric expansion, posterior segment rotation, and inadequate skeletal widening.

Additionally, the PMJ houses critical vascular and neural structures, including branches of the maxillary artery, the pterygoid venous plexus, and the sphenopalatine artery, making it a site prone to intraoperative bleeding. The posterior superior alveolar nerve and palatine nerves run adjacent to this region, posing a risk for sensory deficits or paresthesia if damaged.

Surgical techniques, such as pterygomaxillary disjunction, are designed to overcome the resistance posed by the PMJ and ensure a more controlled and predictable maxillary expansion. Modern approaches, including piezoelectric surgery, can help minimize trauma to adjacent structures while improving surgical precision.

In conclusion, a thorough understanding of PMJ anatomy is essential for achieving effective, safe, and symmetrical maxillary expansion. Proper surgical planning and execution are key to avoiding complications and ensuring long-term stability in SARPE procedures.

ŞAFAK YAĞAN TAŞ

Dr. YAĞAN TAŞ earned her DDS degree from Erciyes University, Faculty of Dentistry. She completed her specialty training in the Department of Oral and Maxillofacial Surgery at Erciyes University, graduating in 2025 with a thesis titled "Investigation of the Effects of Arthroscopy and Arthrocentesis Methods in Temporomandibular Joint Disorders." Dr. YAĞAN TAŞ is a member of the Turkish Society of Oral and Maxillofacial Surgery (ACBID) and is currently working as a research assistant at the Erciyes University, Faculty of Dentistry, Department of Oral and Maxillofacial Surgery.

Arthroscopy vs Arthrosentesis: Why, When and Which?

Temporomandibular Joint Disorders (TMD) are common and complex conditions affecting the soft tissue and bony components of the temporomandibular joint (TMJ). Temporomandibular disorders have a complex and multifactorial pathogenesis and present with a wide range of clinical manifestations. Various etiological factors play a role in the development of TMD, with occlusal problems and emotional stress being among the most prominent contributing factors. Pain, joint sounds, and limitation of mouth opening are the most common symptoms of TMD, which, if left untreated, can significantly impair the patient's quality of life. The primary goal in the management of TMD is to reduce pain and restore normal function. Initially, conservative treatment methods are implemented. However, reports on the success rates of different non-surgical treatment modalities are conflicting, with varying outcomes reported in the literature. In cases where conservative treatments fail to provide satisfactory results, arthrocentesis and arthroscopy are commonly employed. However, there is currently no consensus in the literature regarding the optimal duration for attempting conservative treatment before progressing to the next step in the treatment algorithm. Traditional approaches favor the use of conservative treatments over surgical interventions. Nevertheless, there is growing evidence suggesting that starting treatment with minimally invasive techniques may be more effective in alleviating clinical symptoms compared to conservative approaches. Both arthrocentesis and arthroscopy are well-established techniques for managing internal derangements of the TMJ. However, there are few studies directly comparing the two methods in the literature, and no consensus has yet been reached on which technique should be preferred as the first-line treatment. The aim of this presentation is to compare and discuss arthrocentesis and arthroscopy in the management of temporomandibular joint disorders based on the current evidence in the literature.