

**Introduction:** Osteopetrosis, or “marble bone disease,” comprises rare inherited skeletal disorders where impaired osteoclast function leads to increased bone density and decreased vascularity. This pathology significantly increases the risk of complications such as osteomyelitis following minor oral interventions. **Objective:** To report the long-term management of a rare case of osteopetrosis in a 17-year-old female complicated by recurrent mandibular osteomyelitis, highlighting the diagnostic and therapeutic challenges encountered over a 10-year period. **Materials and Methods:** The patient, monitored since childhood, recently presented with an inflammatory odontogenic mandibular cyst. Surgical enucleation was performed under antibiotic coverage. However, the patient was readmitted one month later with signs of acute-on-chronic osteomyelitis, illustrating the persistent susceptibility to infection. **Results:** The patient’s clinical course demonstrates that despite surgical intervention and pharmacological support, the unique biological behavior of osteopetrotic bone—characterized by high mineral density but poor healing capacity—leads to frequent relapses. Meticulous long-term management strategies tailored to the patient’s health status were critical for controlling episodes of remission and relapse. **Conclusions:** Osteopetrosis is a heterogeneous disease requiring multidisciplinary monitoring to manage its diverse clinical manifestations. In cases of jaw involvement, conservative surgical approaches or personalized strategies are essential to enhance quality of life and mitigate severe risks such as mandibular fracture or permanent neurovascular dysfunction.

## **PP.106 COMPARATIVE CLINICAL STUDY OF BONE REMODELING AFTER MARSUPIALIZATION OF JAW CYSTS USING A WATER FLOSSER VERSUS IODOFORM GAUZE: AN INTERIM ANALYSIS**

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**Introduction:** Jaw cysts are common pathologies requiring prompt intervention to prevent the destruction of adjacent structures. Marsupialization is a primary therapeutic modality that reduces surgical morbidity by opening the cyst into the oral cavity. **Objective:** This study evaluates the efficacy of a water flosser in promoting bone remodeling and reducing cyst dimensions compared to traditional iodoform gauze packing. **Materials and Methods:** In this randomized controlled trial, adult patients with periapical or dentigerous cysts ( $\geq 2\text{cm}$ ) underwent marsupialization. Following a 3-week stabilization period with iodoform gauze, patients were randomized into Group A (periodic gauze replacement) or Group B (daily water flosser irrigation). Outcomes include bone density (Hounsfield units) and volume changes via CBCT every six months. **Results:** Preliminary analysis of the first 10 cases indicates that the water flosser protocol is a viable alternative to gauze packing. Interim data suggests high patient compliance and satisfaction (VAS scale) with the flosser due to reduced clinical visits compared to the 3-week gauze replacement schedule. No significant early complications, such as mandibular fracture or permanent nerve dysfunction, have been recorded in the initial cohort. **Conclusions:** While follow-up is ongoing, early results suggest that water flosser irrigation after marsupialization simplifies postoperative care and maintains the surgical stoma effectively without the necessity for frequent clinical interventions.

## **PP.107 THE CONVERGENCE OF REGENERATIVE SCIENCES: A CROSS-DISCIPLINARY APPROACH TO SKELETAL RECONSTRUCTION**

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**Keywords:** Bone regeneration, Maxillofacial surgery, Orthopedics, Prosthodontics, Periodontal regeneration, Mesenchymal stem cells, 3D printing

## **PP.108 FROM RISK ASSESSMENT TO RECOVERY: MODIFIABLE FACTORS INFLUENCING MORBIDITY AFTER THIRD MOLAR EXTRACTION**

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**Introduction:** One of the most common procedures in oral surgery is the extraction of mandibular third molars. Even though it is a routine, patients often experience issues, such as pain, swelling, trismus and alveolar osteitis, which can affect their recovery. **Objective:** This study aims to identify factors that can be changed before and during surgery that affect recovery and to explore ways to reduce negative outcomes. **Materials and Methods:** A prospective clinical study was conducted with patients undergoing mandibular third molar extraction with local anesthesia. Various factors recorded, including surgical time, flap design, bone removal, tooth sectioning, and the use of corticosteroids and antibiotics before and during surgery. Postoperative issues recorded using Visual Analogue Scale (VAS) pain scores on specific days into a week, measuring maximum interincisal opening, assessing facial swelling and cases of dry socket. Multivariate analysis used to find independent predictors. **Results:** Prolonged surgical time and extensive bone removal were linked to higher levels of postoperative pain and trismus ( $p < 0.05$ ). Corticosteroids before and during surgery associated with reduced swelling and quicker recovery. There was no significant decrease in complications with the use of antibiotics. **Conclusions:** Postoperative issues can be influenced by factors related to the surgery. Thoughtful surgical planning and selective use of corticosteroids may help improve recovery and patient outcomes.

## **PP.109 ORAL SURGICAL TREATMENT AND MANAGEMENT UPDATE FOR PROSTHETIC HEART VALVES PATIENTS**

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The individuals with implanted prosthetic heart valves (PHV) belong in the group of patients with high risk from several aspects. The aim of this work was to show the specific stomatological approach and treatment of patients with PHV. The research included 40 individuals. The preparation included: laboratory blood examination (number of blood platelets, haematocrit, prothrombin time, INR), and antibiotic prophylaxis (according to the protocol of the American Heart Association – AHA).

Detail anamnesis, inspection and X ray examination have been provided on the entire examined person. Forty oral surgery interventions have been made. The oral anticoagulants have been interrupted before the interventions and low molecular weight heparin (LMWH) has been included, before and after the interventions. Definitive local homeostasis has been accomplished with the use of 5% tranexamic acid as mouthwash solution.

The patients have been followed through from aspect of possible development of local and general complications after the intervention and in one month period concerning the general health condition. Complications such as prolonged bleeding, development of infective endocarditis and thromboembolism episode have not been established.

Selective approach and preparation as well as interdisciplinary cooperation with the cardiologists are the base for safe and quality oral surgery treatment of prosthetic heart valves patients.

Key words: tooth extraction, oral surgery, prosthetic heart valves, oral anticoagulants, tranexamic acid.

## **PP.110 ATRAUMATIC RESTORATIVE TREATMENT (ART) : TECHNIQUE AND INDICATIONS**

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## **PP.111 MINIMALLY INVASIVE APPROACH IN ESTHETIC DENTISTRY - A CASE REPORT**

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Introduction:

Laminate veneers are a conservative approach to treating many aesthetic problems. They are frequently preferred to meet patients' aesthetic expectations for diastemas in the anterior teeth.

Case Report:

A 24-year-old patient with diastemas and mild crowding presented to our clinic to address these issues. Following radiological and clinical examinations, the indications and treatment plan were determined, and the patient's consent was obtained. A mock-up was performed to assess whether the patient's aesthetic expectations were met, to estimate the required amount of preparation, and to identify necessary pre-prosthetic needs. Gingivoplasty was planned based on this evaluation. This procedure aimed to prevent disproportionate length and width resulting from closing the diastema. In the next stage, the mock-up was reapplied to the mouth, guide grooves were created for preparation, and then the preparation was completed. Impressions were taken using type A silicone. According to our plan, laminates were fabricated using lithium disilicate-reinforced Empress glass ceramics. A final trial was conducted with try-in paste. In the final stage, permanent cementation was carried out using dual-cure resin cement.

Discussion and Conclusion:

Laminate veneers, as a minimally invasive method, address the aesthetic needs of a young patient with unrestored teeth, perform minimal reduction rather than crown preparation, and thus eliminate the possibility of long-term complications arising from secondary caries and enamel removal.

## **OP.098 THE INJECTABLE COMPOSITE TECHNIQUE WITHIN PATIENT WITH DENTAL EROSION - CASE REPORT**

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**INTRODUCTION:** Anterior crossbite is a common occlusal alteration characterized by an abnormal anteroposterior relationship between the maxillary and mandibular arches. If untreated in the deciduous dentition, it may promote mandibular overgrowth, restrict maxillary development, and contribute to skeletal Class III patterns. Children aged 3–5 years typically first attend pediatric dental clinics, placing pediatric dentists in a crucial position for early diagnosis and interceptive care. Planas Direct Tracks (PDT), within neuro-occlusal rehabilitation, provide continuous occlusal guidance independent of patient compliance and may support favorable neuromuscular adaptation during growth.

**OBJECTIVE:** To evaluate the three-year clinical stability of early interceptive treatment with Planas Direct Tracks in a young Class III patient.

**MATERIALS AND METHODS:** A 3-year-old child in the deciduous dentition presented with anterior crossbite affecting four maxillary incisors and negative overjet. Baseline intraoral photographs and cephalometric records were obtained. After parental consent, PDT were fabricated using anterior composite resin to eliminate the crossbite and guide mandibular repositioning. Follow-ups were conducted at 3, 6, and 12 months, with monitoring continued for three years.

**RESULTS:** Negative overjet was corrected within one month. Progressive improvement during the first three months eliminated functional mandibular shift. The initial Class III canine relationship converted to Class I. After three years, composite removal confirmed stable Class I occlusion without relapse or temporomandibular symptoms.

**CONCLUSIONS:** Early interceptive use of PDT achieved stable correction and may help prevent progression of Class III malocclusion.

## **OP.099 EVALUATION OF SURFACE MICROHARDNESS OF RESIN CEMENTS POLYMERIZED BENEATH CERAMIC HYBRID AND NANO HYBRID COMPOSITES WITH VARYING THICKNESSES**

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Selin Seda Çağlar Aşkın<sup>1</sup>, Ali Rıza Çetin<sup>1</sup> Selcuk University Faculty of Dentistry, Department of Restorative Dentistry, Konya, Turkey **INTRODUCTION** The polymerization efficiency of resin cements may be affected by the thickness and optical properties of indirect restorative materials, influencing their mechanical performance. **OBJECTIVE** This in vitro study aimed to evaluate and compare the surface microhardness of resin cements polymerized using different curing modes beneath indirect restorations fabricated from a hybrid ceramic CAD/CAM block and two nano-hybrid composite resins of varying thicknesses. **MATERIALS AND METHODS** Specimens (1, 2, and 3 mm) were prepared from a hybrid ceramic CAD/CAM block (Lava Ultimate; LU) and two nano-hybrid composites (IPS Empress Direct; IPS and Neo Spectra ST HV; NST). Four resin cements with light- and dual-cure modes (Nova Resin, Imicryl; NX3 Nexus, Kerr) were placed using Teflon molds (6 mm