

Introduction: An oroantral fistula (OAF) is an abnormal connection between the oral cavity and the maxillary sinus, usually occurred after the removal of maxillary premolar and molar teeth. Many techniques have been described for closure of oroantral fistulas but ignoring restoration of bony defects secondary to OAFs. This report presents a novel three-layered method for repairing OAFs with biomaterials sandwiched between the maxillary sinus floor mucosa and the palatal flap.

Case description: A 59-year-old female patient was admitted to clinic with an oroantral fistula, of which the diameter was 6 mm. Firstly, peripheral soft tissue of the fistula was utilized to repair the maxillary sinus floor mucosa. And then, a mineralized collagen plug was placed over the sinus mucosa. Finally, the fistula was completely covered by a palatal flap. The follow-up period lasted for 6 months to evaluate the closure of the OAF and bone regeneration.

Discussion: To yield adequate bone, a mineralized collagen plug was used to maintain space and promote bone generation. Compared with a buccal flap, a pedicled palatal flap has advantages of offering well-keratinized gingiva, not reducing the ridge height and better blood supply, thus ensuring success of both the closure of OAFs and the subsequent implant placement.

Conclusion/clinical significance: The closure was successfully achieved without any signs of inflammation in the maxillary sinus and regenerative bone was observed after 6 months. The triple-layered technique is an effective procedure to repair OAFs.

Key Words: Triple-Layered Closure, Oroantral Fistula.

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CA4781

Madibular Phosphaturic Mesenchymal Tumor Induced Osteomalacia: 2 Cases

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Introduction: TIO is a rare disorder with currently undefined incidence. PMTs represent the predominant etiology. The insidious disease onset and diagnostic challenges frequently result in misdiagnosis and delayed treatment.

Case description: We report two cases of mandibular PMT-induced osteomalacia: 1.A 25-year-old male presented with severe hypophosphatemia (0.41 mmol/L), diffuse arthralgia, and proximal myopathy;2.A 49-year-old female demonstrated 3-year progressive lower limb weakness culminating in bilateral fractures with persistent hypophosphatemia. DOTATATE PET-CT localized mandibular tumors in both cases, with complete symptomatic resolution following surgical excision.

Discussion: Tumor-induced osteomalacia (TIO), though rare, poses significant diagnostic challenges, frequently delaying treatment. These cases highlight the necessity of suspecting TIO in unexplained osteomalacia with hypophosphatemia. Current epidemiological data remain limited. Key features of TIO include: Profound hypophosphatemia (serum phosphorus: 0.41 ± 0.13 mmol/L; normal: 0.85–1.51) FGF23 overexpression, disrupting phosphorus metabolism DOTATATE PET-CT for tumor localization and surgical planning

Conclusion/clinical significance: TIO is one of the important causes of adult-onset hypophosphatemic osteomalacia. The awareness of the disease could avoid the delay on diagnosis in clinical.

Key Words: Tumor-induced osteomalacia (TIO), phosphaturic mesenchymal tumor (PMT), PET-CT, Mandible.

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Platelet-Rich Fibrin'S Effect On Wound Healing After Apicotomy

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Introduction: In modern dentistry, damaged tissue can be replaced using autologous tissue transplantation (such as autologous bone or skin) or biomaterials (substitute materials for bone or skin reconstruction). Among the biomaterials used in bone tissue engineering, Platelet-Rich Fibrin (PRF) has recently gained considerable attention. This study aims to demonstrate the superiority of PRF in the healing process following surgical interventions for the treatment of chronic periapical inflammatory processes.

Case description: A diagnosis of periapical chronic periodontitis was made in two patients, aged 16 and 48, and a treatment plan was developed. Surgical intervention (apicotomy) was performed on both patients. Venous blood was drawn from the patients, placed in a PRF centrifuge, and a biological material was obtained. The platelet-rich fibrin was subsequently applied to the lesions. X-rays were obtained prior to the intervention, as well as one month and two months post-procedure.

Discussion: Significant improvement in the condition of the alveolar bone, which had been destroyed during the pathological inflammatory process, was observed in both patients. Autologous platelet storage through PRF is an easy and cost-effective method for obtaining high concentrations of growth

factors to promote tissue healing. Previous clinical experience confirms that PRF can be considered as biomaterial with therapeutic properties that accelerate physiological healing.

Conclusion/clinical significance: Currently available clinical evidence suggests that the healing rate of surgical sites reinforced with PRF is two to three times higher than that of standard surgical sites.

Key Words: PRF, apicotomy, periapical processes.

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Perioperative Nursing Of Digital Assisted Extraction Of Impacted Mandibular Teeth

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Introduction: Extracting impacted mandibular third molars via traditional surgery has a high risk of postoperative complications due to complex anatomy and significant trauma. This case optimized the surgical plan using digital technology and explored key perioperative nursing points.

Case description: A 45-year-old female patient presented with swelling and pain in the left mandibular posterior region. Diagnosis was "Impacted and embedded left mandibular wisdom tooth complicated by osteomyelitis". The mandible and impacted teeth were reconstructed by CBCT, and personalized positioning guide plates were designed by digital design software, followed by 3D printing. The impacted teeth were completely extracted by buccal window method with the help of precise positioning of guide plate. Perioperative nursing involved pre-operation pre-rehab and 3D-model-based visual education. Closely cooperate with the surgical team during the operation, efficiently carry out instrument delivery and surgical field management. Postoperative drug treatment was given in strict accordance with the doctor's advice and focus on oral, diet, drainage tube, pain care, etc. Discharge follow-up covered mouth-opening recovery and patient satisfaction.

Discussion: Digital guide plate technology offered precise positioning in the buccal fenestration method, effectively shortening the operation time and reducing trauma. Comprehensive peri-operative nursing sped up recovery. Follow-up helps improve service. This case shows digital tech-nursing combo optimizes complex impacted-tooth extraction treatment.

Conclusion/clinical significance: Digital-assisted technology combined with targeted nursing can reduce surgical risks, improve patient satisfaction, and provide a new idea of minimally invasive, efficient, convenient and beneficial to postoperative nursing for similar surgery.

Key Words: Bone embedded impacted teeth, Digital assistance; 3D printing positioning guide plate, Perioperative nursing.

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Odontogenic Infection Complicated By Descending Necrotizing Mediastinitis And Chylothorax

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Introduction: Untreated odontogenic infections may progress to life-threatening descending necrotizing mediastinitis (DNM), with a mortality rate of 20.2%. Although rare, DNM-associated chylothorax can accelerate clinical deterioration. Early recognition of these complications is critical for timely intervention and improved outcomes.

Case description: A 62-year-old diabetic woman presented with a 4-day history of right submandibular swelling and 1-day dyspnea. Examination revealed fever (38°C), fluctuant bilateral submandibular swelling, and restricted mouth opening. CT showed periapical radiolucency at the right second molar. Emergency incision and drainage improved her breathing. Initial ceftriaxone therapy was escalated to linezolid and meropenem after cultures confirmed multidrug-resistant infection. On day 12, she developed persistent chest discomfort. Contrast CT showed pneumomediastinum and right pleural effusion. Ultrasound-guided thoracentesis drained 500 mL of milky fluid, with positive chylous tests and elevated ADA/LDH, confirming chylothorax. Aggressive drainage, antibiotics, and nutritional support stabilized her condition.

Discussion: DNM, often secondary to odontogenic infections, is an acute suppurative condition with complications like airway obstruction and sepsis. Chylothorax is exceptionally rare, but may occur if infection involves the thoracic duct, causing fluid loss and immunosuppression. Management requires individualized approaches (conservative vs. surgical). In this case, combined antibiotics and drainage achieved control, underscoring the importance of early microbial testing, antimicrobial stewardship and multidisciplinary care for tailored therapy.

Conclusion/clinical significance: DNM should be suspected in severe odontogenic infections. Chylothorax, though uncommon, warrants consideration. Multidisciplinary management, targeted antibiotics, and nutritional support are pivotal for recovery.

Key Words: Descending necrotizing mediastinitis (DNM), Odontogenic infection, Chylothorax, Multidrug-resistant infection, Antimicrobial stewardship.

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CA3359

The Whole Process Treatment Of Stage-2 Mronj: Case Report

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