

PP-167 Prosthetic Approach to Tooth Structure Damage Associated with Dietary Habits and Bruxism: A Case Report

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INTRODUCTION: Tooth structure loss resulting from parafunctional habits such as bruxism, compounded by erosive dietary factors, presents a multifactorial challenge in restorative dentistry. Patients often exhibit a combination of advanced anterior wear, dentin hypersensitivity, and non-carious cervical lesions. Successful rehabilitation requires a minimally invasive, esthetically driven, and functionally stable prosthetic approach. This case presents a comprehensive adhesive and occlusal strategy for managing tooth wear caused by both bruxism and dietary habits.

Case Description: A 54-year-old female patient presented with severe anterior tooth wear, dentin hypersensitivity, and non-carious cervical lesions attributed to parafunctional habits, particularly bruxism. The maxillary central incisors exhibited significant structural compromise and esthetic concerns. To fulfill the functional and esthetic needs of the patient, lithium disilicate crowns were placed on the maxillary central incisors. Additionally, seven maxillary anterior teeth were restored using minimally invasive lithium disilicate laminate veneers. A monolithic zirconia crown was

placed on the maxillary first molar to reinforce posterior occlusal support. Tooth preparations followed adhesive principles, and the occlusion was carefully evaluated and adjusted. A protective occlusal splint was delivered post-treatment to eliminate future damage.

Discussion: This case emphasizes the importance of early diagnosis and a comprehensive, adhesive-based prosthodontic treatment plan in managing bruxism-induced tooth wear. Lithium disilicate ceramics allowed for both conservative tooth preparation and high esthetic outcomes. The use of a monolithic zirconia crown in the posterior ensured durability. The integration of occlusal assessment and an occlusal splint served as critical components for maintaining long-term stability.

CONCLUSION: Through a customized, adhesive prosthodontic strategy, it was possible to restore esthetics, relieve sensitivity, and prevent further damage in a patient affected by bruxism.

Keywords: Bruxism, Adhesive Prosthodontics, Lithium Disilicate, Occlusal Splint, Tooth Wear

PP-168 Prosthetic Management of a Maxillary Defect with a Definitive Obturator

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INTRODUCTION: Maxillary defects commonly occur after surgical resection of oncologic lesions, leading to oroantral communication that significantly impairs mastication, deglutition, speech, and facial appearance. This case report presents the fabrication of a definitive obturator with a cast metal framework for a patient with an acquired maxillary defect who previously struggled with an ill-fitting prosthesis.

Case Description: A 64-year-old male patient presented to the Department of Prosthodontics seeking replacement of his current obturator prosthesis. The patient reported poor prosthesis retention, difficulty in mastication, and hypernasal speech. Extraoral examination revealed a scar contracture over the upper lip and minimal facial asymmetry characterized by a depressed right malar region. Intraoral evaluation showed a well-healed post-maxillectomy defect on the right side of the maxilla, classified as a Class II defect according to the Brown classification system. An open hollow bulb obturator was planned for prosthetic rehabilitation due to its advantages, including reduced weight, improved hygiene, ease of fabrication, and enhanced speech intelligibility. A new palatal obturator was fabricated using

polymethyl methacrylate (PMMA), supported by a chrome-cobalt alloy framework, with the addition of an indirect soft acrylic liner over the defect area to enhance comfort and adaptation.

Discussion: Prosthetic rehabilitation following maxillectomy presents challenges due to compromised support, retention, and stability. In this case, a hollow bulb obturator with a cast metal framework was designed to reduce weight, enhance retention, and ensure functional load distribution. Remaining teeth and palatal support were utilized through a tripod design, enhancing prosthesis stability. The soft liner provided additional comfort over the defect. Obturators remain a reliable, non-invasive treatment option when carefully designed according to defect classification and soft tissue conditions. This approach effectively restored mastication, speech, and esthetics, significantly improving the patient's quality of life.

Keywords: partial maxillectomy, obturator prosthesis, hollow bulb obturator