



Bureau's Journal of Prosthodontics Dentistry
An Official Publication of Bureau for Health & Education Status Upliftment
(Constitutionally Entitled as Health-Education, Bureau)

Esthetic Rehabilitation of a Subgingivally Fractured Maxillary Lateral Incisor Using Cast Post-and-Core and Guide-Directed Surgical Crown Lengthening: A Case Report

Kavinci Sihag BDS,^a, H.S. Shashidhara MDS,^c & Roopa K. T MDS,^b

^aPostgraduate student, Department of Prosthodontics, Crown and Bridge, College of Dental Sciences, Davangere, India

^bProfessor, Department of Prosthodontics, Crown and Bridge, College of Dental Sciences, Davangere, India

^cProfessor and Department Head, Department of Prosthodontics, Crown and Bridge, College of Dental Sciences, Davangere, India

Corresponding author

Kavinci Sihag, Department of Prosthodontics, Crown and Bridge, College of Dental Sciences, Davangere, India

Email Id: serviceheb@gmail.com

Abstract

Fracture of an endodontically treated maxillary anterior tooth extending to the alveolar crest compromises the ferrule, encroaches on the supracrestal tissue attachment, and produces gingival asymmetry, presenting a combined endodontic, periodontal, and prosthodontic challenge. This report describes a 45-year-old male with a six-month-old subgingival fracture of a root canal treated maxillary right lateral incisor (tooth 12), minimal residual coronal structure, a coronally displaced gingival zenith, and a deep bite. Serviceable porcelain-fused-to-metal (PFM) crowns were present on teeth 22 and 23. Management followed a sequenced, prosthetically driven protocol: a customized case post-and-core was first fabricated for tooth 12; a diagnostic wax-up of teeth 11, 12, and 21 was then completed and used to fabricate a clear acrylic surgical guide; Type III esthetic crown lengthening (Lee classification) comprising internal level gingivectomy, full-thickness flap reflection, and osseous recontouring to establish approximately 3 mm of supracrestal tooth structure was performed under guide control, followed by immediate bis-acrylic provisionalization; and after three months of soft-tissue maturation, teeth 11, 12, 13, and 21 were restored with definitive PFM crowns. At three-month follow-up the patient demonstrated symmetric gingival contours, harmonious zenith positions, stable periodontal health, an adequate ferrule for tooth 12, and a

markedly improved smile. A wax-up-derived acrylic surgical guide offers an accessible and predictable means of transferring the restorative plan to the surgical field in such cases.

Keywords: Cast post and core; Ferrule effect; Esthetic crown lengthening; Porcelain-fused-to-metal restoration; Surgical crown lengthening; Supracrestal tissue attachment; Surgical guide;

Access this Article Online	Quick Response Code: 
Website: http://heb-nic.in/jopd	
Received on 27/08/2026	
Accepted on 08/09/2026 © HEB All rights reserved	