



A Combined Orthodontic-Periodontal Treatment Approach to Manage Altered Passive Eruption along with Malocclusion

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Clinical Image

Altered Passive Eruption (APE), a condition characterized by a coronal position of gingival margins over the tooth cervical convexity, results in the appearance of short and more square clinical crowns which were frequently perceived as esthetic impairment [1,2]. Although APE was described as a developmental or genetic condition, this alteration is a normal variation and not necessarily pathologic [3,4]. The epidemiological studies have found the morbidity of APE varies from 12% to 42%, depending on population investigated and criteria used [5]. Although the reported prevalence of malocclusion is over 40%, APE along with malocclusion is relatively uncommon condition only studied in a few case reports. Treatment procedure for this condition should be described as interdisciplinary treatment by combining orthodontic, periodontal, esthetic and prosthetic approaches (Figure 1). The gingival/osseous relationship becomes important for proper diagnosis and determination of treatment sequence. To achieve a successful esthetic and functional result, radiographical assessment of the concerned area was executed to exclude any major pathology of the region and precisely predict the therapy outcome (Figure 2).

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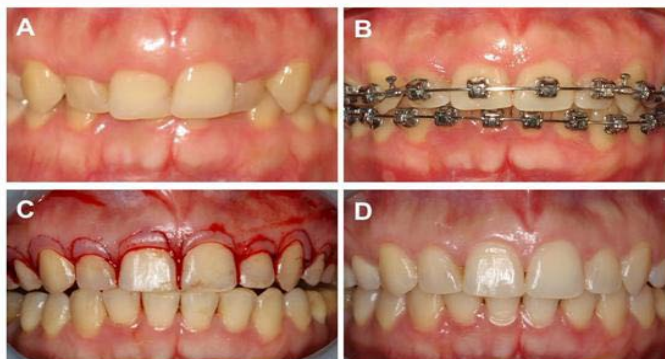


Figure 1: The whole procedure of managing altered passive eruption along with malocclusion. (A): Pre-treatment gingival visibility and occlusion in baseline. (B): Orthodontic treatment by straight wire appliance. (C): Maxillary gingivectomy, internal bevel incision following CEJ anatomy. (D): Postoperative view 1 year after periodontal surgery.

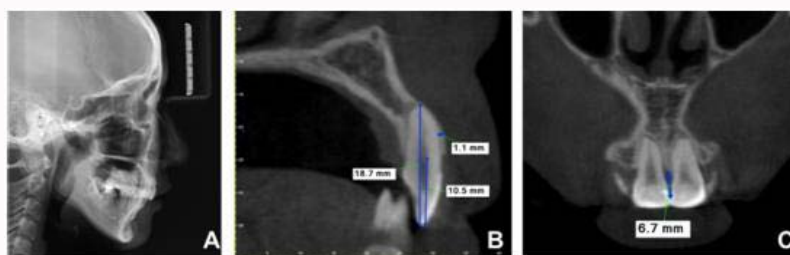


Figure 2: Radiographical assessment for treatment sequence. (A): Cephalometrics study for orthodontic treatment. (B): Cone beam computed tomography (CBCT) analysis for dehiscence, the facial bone thickness, the distance between the Cementoenamel Junction (CEJ) and the bone crest on the labial surfaces of teeth. (C): CBCT analysis for the distance between adjacent and the bone crest in the interproximate space.

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