A Customized Approach for Correction of Asymmetric Malalignment

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ABSTRACT

Successful treatment results depend upon recognizing the forces and moments required to bring the teeth into proper alignment and counter the unwanted effects of these forces. A customized approach is demonstrated which significantly reduces the adverse reactions of conventional mechanics.

Keywords: Customized mechanics, Mid-line correction, Asymmetric malalignment.

INTRODUCTION

Successful treatment results depend upon recognizing the forces and moments required to bring the teeth into proper alignment and counter the unwanted effects of these forces. While bringing the teeth into desirable alignment, we strive to maximize the action and minimize the adverse reactions.

In our clinics, we come across few cases which require a customized approach for achieving the desired treatment goals. Such modifications may significantly reduce the adverse reactions of conventional techniques (Figs 1 to 2B).

CASE REPORT

The patient presented with her maxillary right central incisor excessively labially placed with proclination of 8 mm, while the other incisors were mildly crowded. The midline was shifted to the right (Fig. 3). A continuous labial archwire would have caused labial movement of the adjacent incisor and further compromised the midline. A lingual appliance was suggested, which was refused by the patient. Patient was not willing for a comprehensive lingual appliance.

Therefore, an additional lingual button was bonded onto the maxillary right central incisor and an oblique lingual force from maxillary left first molar was applied for midline correction and selective lingual retraction of the incisor (Figs 4 to 6). To reinforce the posterior anchorage, the molar was ligated with two premolars and a transpalatal arch was cemented.

In duration of 3 months, the incisor was aligned with other incisors and midline spacing became symmetric (Figs 7A and B). This technique also prevented round-tripping due to unwanted proclination of adjacent incisors.

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91
Possible Modifications

In cases showing proclination of both the incisors with diastema, this technique can be used for both sides, as the forces are applied at the sight of proclination.

CONCLUSION

Thus in cases showing excessive proclination of a single incisor with midline shifted to one side, the correction can be aided with the help of an additional lingual force from stabilized molars, thereby reducing treatment time.

REFERENCES