

EFFICIENCY OF SEGMENTED MECHANICS TO OPTIMIZE THE ORTHODONTIC TREATMENT IN CANINE DISTALIZATION-case report

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INTRODUCTION

The principles of orthodontic mechanics strongly influence the success of canine distalization.

MATERIAL AND METHOD

Orthodontic treatment of a young patient with primary anterior bimaxillary crowding, an ectopically erupted upper left canine, buccally positioned and dental asymmetry, Angle class I on the right side and Class II malocclusion on the left side, ½ Class II in the canine region and Class II in the molar region. The treatment plan included extractions of the lower first molars and the upper right first premolar. With 0.017 x 0.025 segmental titanium molybdenum alloy T-loop, the horizontal force acted on the tooth performing its bodily distalization and its retraction by closing the extraction space.

AIM

The aim of this case report is to present the use and efficiency of good biomechanical principles of segmented mechanics in order to optimize the orthodontic treatment in canine distalization.



Figure 1. T-loop .



Figure 2. a) Intraoral view of patient malocclusion .



Figure 3. T-loop for canine retraction and it's bodily distalization.

RESULTS

After the treatment with segmented arch and achieving correction of the ectopic placement of the canine in Angle class I relationship, we continued the treatment with straight wire technique. We corrected the maxillary and mandibular crowding, achieved ideal overjet and overbite and improved incisor inclination, which, led to improved occlusion and satisfactory smile for the patient.



Figure 5. Results after the orthodontic treatment.

CONCLUSION

Through this case report we highlight the efficiency of segmented mechanics to optimize the orthodontic treatment, to reduce the duration of treatment time and to achieve ideal results without side effects on the surrounding teeth and tissues.

Authors declare that there is no conflict of interest