

Results. The treatment method was chosen according to severity degree and patient's age. Thus, 8 patients of 12 were treated through fixed appliances, while the other 4 persons were using removable orthodontic appliances. Cooperative patients during the growth period and that have no severe teeth crowding, have wore removable appliances for 9 to 12 months, while the others were treated through fixed adhesive system within about 1,5 years.

Conclusions. Patients that wore removable appliances, followed by fixed appliances, achieved their aesthetic objectives, maximum intercuspation and a functional occlusion.

Key words: disharmony, Angle class I malocclusion, diagnosis, treatment, aesthetic, study, crowding, removable appliances, fixed appliances, dental alignment.

400. APPLICATIONS OF PALATAL MICROIMPLANTS FOR ORTHODONTIC TRACTION OF IMPACTED CANINES

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Introduction. Maxillary impacted canines can be considered a complex problem that often occurs in clinical practice. Canine is the second most frequently impacted tooth in the dental arch after the third molar. Maxillary impacted canines represent a common and challenging clinical situation. Fixed orthodontic treatment has been largely utilized but with the drawbacks of a prolonged treatment time and the possibility of intrusion of the adjacent teeth based on the law of action and reaction. Both of this inconvenience can be overcome through means of a Skeletal anchorage, using microimplants, known as TAD (Temporary Anchorage Devices).

Aim of the study. The aim of this study is to evaluate the practical effectiveness of micro implants in the "T- zone", for the management of maxillary impacted canines.

Materials and methods.. For this study were selected 15 patients with maxillary impacted canines, CBCT was done for all of them. Thirteen patients had one upper canine impacted palatally, and two patients had both upper canines impacted palatally. None of them had previous orthodontic treatment or active periodontal disease in the beginning of treatment. The 6-8 mm micro-screws with bracket-like head with the slot dimension of 0.22 mm were inserted using the screw driver, with a torque wrench to check that the tightening torque does not exceed 50 Newton. In the same surgical procedure the impacted canines were exposed with its application of an orthodontic eyelet.

Results. In 13 patients the mini screws had a long-term success, 2 patients had lost 1 of two microimplants. The mean traction duration was been 5 months with a range from 3 to 7 months, depending on the depth of the impaction, root position and angulation. After canines traction was done, the microimplants were used for anchoring the segmented elements in order to align the canines in the arch.

Conclusions. Midpalatal TADs can be used as absolute anchorage for difficult tooth movement such as traction of the impacted canines. Thus, the microimplants showed itself capable of supporting the orthodontic load alone, throughout the decompression phase of the impacted canines, thus avoiding the transmission of permanent invasive vertical forces, thereby preserving it from undesirable effects.

Key words: Palatal microimplants, maxillary impacted canines, skeletal anchorage, T-zone.