عنوان مقاله:

Relationship between Mid-palatal Bone Thickness and Facial Height Using CBCT for Orthodontic Mini-implant

محل انتشار:

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خلاصه مقاله:

Aim: Orthodontic mini-implants have been incorporated into orthodontic treatment modalities. Adequate bone at mini-implant placement site can influence the success or failure of anchorage. The aim of the present study was to determine the thickness of bone in the maxillary mid-palatal area at predetermined points for the placement of orthodontic mini-implants using Cone Beam CT technique in order to evaluate the relationship of these values with the facial height. Materials and methods: A total of ۱۶۱ patients, consisting of males (۳۹.۳۲%) and females (۶۰.۸۶%), were evaluated in the present study, ۳۸% of the subjects had normal facial height, ۲۹% had short face and ۳۳% had long face. In order to determine which patient belonged to which facial height category, i.e. normal, long or short, two angular and linear evaluations were used: the angle between S-N and Go-Me lines and the S-Go to N-Me ratio. Twenty points were evaluated in all the samples. First the incisive foramen was located. The para-coronal cross-sections were prepared at distances of ۴, ۸, ۱۶ and ۲۴ mm from the distal wall of the incisive foramen and on each cross-section the mid-sagittal and para-sagittal areas were determined bilaterally at ۳- and ۶-mm distances (a total of ۵ points). The thicknesses of the bone were determined at the predetermined points. Results: Statistical analysis did not show significant differences between three different facial height groups at none of the ۲۰ points.Conclusion: The present study did not find any relationship between palatal bone thickness and facial height. Further studies with larger .sample size are necessary to evaluate the relationship between the thickness of bone and facial height

کلمات کلیدی:

Anchorage, Cone beam CT, Facial height, Cortical Bone thickness