

عنوان مقاله:

Relationship of bone and soft tissue thickness with age and gender for orthodontic mini-implant placement by CBCT

محل انتشار:

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خلاصه مقاله:

Background and aim: The aim of the present study was to measure the thicknesses of bone and soft tissues in the mid palatal area at certain points for the placement of orthodontic mini-implants using CBCT and evaluate their relationships with age and gender. **Materials and methods:** A total of 161 subjects were evaluated in the present study, consisting of males (31.9%) with a mean age of 41.46 ± 13.88 years and females (68.9%) with a mean age of 38.47 ± 11.66 years. In all the samples 20 points were evaluated. First, the incisive foramen was located. Then para-coronal cross-sections were prepared at 4-, 8-, 16- and 24-mm distances from the posterior wall of the incisive foramen; in addition, on each cross-section, the mid-sagittal and para-sagittal areas were determined at 3- and 6-mm intervals bilaterally (5 points on the whole). The soft tissue and bone thickness were measured at these points. **Results:** The soft tissue thicknesses were significantly different at all the 20 sample points between males and females ($P < 0.05$). In other words, at all the points the soft tissue thicknesses were significantly greater in males compared to females. In some areas there was a positive relationship between age and soft tissue thickness ($P < 0.01$), i.e. the soft tissue thickness increased with age. In addition, in the majority of points the overall bone thickness was significantly higher in males compared to that in females; however, in the majority of points, no positive relationship was found between age and bone thickness. **Conclusion:** Age was not a determining factor for bone thickness, while there was a stronger relationship between soft tissue thickness and age. In addition, the most appropriate locations for the placement of orthodontic mini-implants were paramedian area at 3- and 6-mm distances from the suture, 4 mm posterior to the incisive foramen.

کلمات کلیدی:

Cone beam CT, Mini implant, Anchorage, Mid palatal

لینک ثابت مقاله در پایگاه سیویلیکا:

