

عنوان مقاله:

Analyzing the Crystal Structure of Alveolar Bone and its Impact on the Rate of Tooth Movement

محل انتشار:

دوفصلنامه ارتودنسی ایران، دوره 12، شماره 2 (سال: 1396)

تعداد صفحات اصل مقاله: 4

نویسندگان:

Mohsen Shirazi - DDS, MS, Professor, Department of Orthodontics, Tehran University of Medical Sciences, Tehran, IR Iran

Armin Soudi - DDS, Postgraduate Student of Orthodontics, Department of Orthodontics, Tehran University of Medical Sciences, Tehran, IR Iran

Pedram Baghaeian - DDS, Postgraduate Student of Orthodontics, Department of Orthodontics, Tehran University of Medical Sciences, Tehran, IR Iran

Yasamin Farajzadeh Jalali - Assistant Professor, Department of Orthodontics, School of Dentistry, Ilam University of Medical Sciences, Ilam, IR Iran

خلاصه مقاله:

Background The aim of this study was to investigate the crystal structure of mineral part in the Compact and Cancellous bones in different areas of alveolar bones. **Methods** In this study, 7 alveolar bone samples were prepared from buccal and distal plates of the jaws of three patients, and 8 samples from Cortical and Cancellous bone of two other patients' palate. After converting all the samples into powder, the samples were examined by using the X-RD method. Diffractogram of 1-7 samples were compared with each other and Diffractogram of 8-11 samples also were compared with each other too. **Results** Comparing two corresponding points in the jaws the crystallinity degree in the mandible is higher than the maxilla. In comparison of two corresponding points in the maxilla and mandible degree of crystallinity and the crystalline hydroxyapatite on the right has been more than on the left. The amount of crystalline hydroxyapatite phase in females is more than males and crystallinity degree of this phase in males is more than females, and in younger people, the hydroxyapatite crystalline phase is more than others and crystallinity of this phase in older subjects is higher than others. **Conclusions** Tooth movement, despite the influence of the same forces, is faster on left side than the right side and is faster on maxilla than mandible. Tooth movement is faster in younger people than in older subjects.

کلمات کلیدی:

Hydroxyapatite, x, Ray Diffraction, Alveolar Bone, Orthodontic Tooth Movement

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1303187>



