Comparison of three methods based on CBCT images in visualization of the mandibular canal

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Objectives: The location of mandibular canal is an important factor in selecting the proper site for implant placement at posterior of mandible. The purpose of this study was to compare three methods based on CBCT-derived images in visualizing the mandibular canal.

Method & Materials: In method I, panoramic-like reformatted views were used. Method II was based on cross-sectional views. And method III was a combination of method I and method II. The observers determined the degree of the visualization of the mandibular canal in two predetermined areas, premolar and molar.

Results: There was no significant difference between the combination and the cross-sectional method. (P>0.05) However, significant differences were found between the panoramic and the other two methods (P<0.05).

Conclusion: The best method for identifying the mandibular canal to an optimum level with CBCT-derived images is to use a combination of reformatted panoramic and cross-sectional views and also cross-sectional images were significantly better than panoramic reconstruction in identifying the mandibular canal.

Recent Publications


Biography

Maryam Tofangchiha is an Oral Radiologist, Associate Professor of Oral and Maxillofacial Radiology, Dental Faculty, Qazvin University of Medical sciences, Qazvin Iran. (2013 –present). She is the Assistant Professor of Oral Radiology Department, Dental Faculty, Qazvin University of medical Sciences, Qazvin Iran. (2004-2013). She is the Member of Department of Caries Research Qazvin University of medical sciences, Qazvin Iran. (2013 –present). She published more than 15 papers in indexed Scopus.

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