OSC24: Need for A Panoramic Radiographic Assessment Prior to Prosthetic Treatment in Complete Edentulous Patients

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Aim: The purpose of this study was to evaluate the frequency of positive radiographic findings in pre-prosthetic panoramic radiographs of edentulous arches and to emphasize the need for a radiographic examination of edentulous patients before fabricating complete dentures.

Materials and Methods: A total of 60 completely edentulous patients who were presented for the construction of new dentures and the replacement dentures were selected within a period of one year. Patients with special needs or mentally retarded were excluded from the study. Panoramic radiograph was taken using CBCT machine (PaX-Duo 3D, Korea) with standard radiographic exposures and they were evaluated by a radiologist in the computer screen without any magnification for the following radiographic findings: the location of the mandibular canal, the position of the mental foramen and maxillary sinus, relative thickness of the soft tissue covering the edentulous ridge, retained roots, impacted teeth and foreign bodies.

Results: The mean age of the population was 65.7 (SD±8.9) and it was consisted 62% females and 38% males. Among the population 8.3% and 6.6% were having retained roots and impacted teeth respectively. The location of the inter-alveolar canal was not clear in 31% of the radiographs in both sides. The position of the mental foramen was located 20.5 mm (SD±4.20) from the midline. The soft tissue coverage was 1-3mm in 81.3% and bone height in related to the maxillary sinus was >5mm in 16% cases. The probability of having positive radiological findings in related to denture bearing area was significant (p<0.05).
Conclusion: With the findings of positive radiological findings among the study sample it can be considered to take panoramic radiograph before fabricating complete dentures in edentulous mouth with the correlation of clinical findings and these parameters will be useful in assessing the edentulous patients as candidates for implant therapy depends on radiographic imaging.

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