Localization of Mental Foramen in Panoramic Radiographs of 18-30 Year Olds: A Hospital Based Study

Luitel A,1 Rimal J,2 Maharjan IK,3 Shrestha A4

1Junior Resident, Department of Oral Medicine and Radiology
2Professor and Head, Department of Oral Medicine and Radiology
3Associate Professor, Department of Oral Medicine and Radiology
4Professor and Head, Department of Public Health Dentistry

ABSTRACT

Introduction: The accuracy of the mental foramen (MF) identification and correlating it with clinically visible structure is essential for performing different clinical procedures as position of the MF demonstrates anatomical variations.

Objective: The aim of the present study was to determine the radiographic position of MF in relation to PM crown and apex, in panoramic radiographs.

Materials and Method: Following ethical approval, a retrospective study was conducted in 510 panoramic radiographs of 18-30 year olds from archives of Department of Oral Medicine and Radiology. The position of MF was scored using crown and apex scores according to criteria given by Jasser and Nwoku, 1998. Data was entered in Microsoft excel 2010 and analyzed in SPSS version 11.5. Descriptive statistics was calculated and Chi-square test was applied to
assess variation in position of MF between genders and right and left side of mandible. Kappa statistics was applied to assess intra-observer reliability.

**Result:** The most common scoring for position of MF on right and left side crown and apex was 3 followed by 4. There was no statistically significant difference in position of MF between the genders. Comparing the right and left sides, the MF position was symmetrical in 83.3% for crown and apex scores. The Kappa values indicated good agreement for intraobserver reliability.

**Conclusion:** The most common position for the MF is between the first and second premolar teeth; though, anatomical variations are seen.

**Keywords:** Mental foramen, panoramic radiograph, premolar.

**Mode of presentation:** Oral