Dental Education 2018: Prevalence and pattern of mandibular third molar impaction at tertiary care hospital Makkah Saudi Arabia: A digital panoramic study - Mahmoud Khalid Othman - Al-Noor Specialist Hospital

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Introduction: The most commonly impacted tooth in the oral cavity is the third molars. Various etiologic factors like changed dietary habits, and human jaw growth have been suggested for impacted mandibular third molars. The pattern and prevalence of impacted mandibular third molars vary with different population and region. This study throws light on the prevalence and pattern of impacted mandibular third molars in Makkah Kingdom of Saudi Arabia (KSA).

Aim: To assess the prevalence and pattern of impacted mandibular third molars in the population of Makkah KSA by conducting a radiographic study.

Materials & Methods: This study will be conducted in the Department of Oral and Maxillofacial Surgery, Al Noor Specialist Hospital Makkah KSA. A total of radiographic records [orthopantomograms] were assessed and cases were selected for the study as per the inclusion criteria. They were evaluated for the frequency among the various age groups, gender and region along with the sides affected, angulation and level of impaction. The presence of associated pathologies in relation to same tooth or second molars was also assessed according to the type of impaction.

Results: The average age of these patients in the study was found to be years, with the two years age group being the most affected (%). Females (%) were affected more than the males (%). Angular impaction was the most common angulation with a definite relationship to the age groups. The level of impaction had no significant relationship to the age groups, gender, or region, although class I position A was found to be the most common type. Mesioangular class I position A impaction showed an apparent relationship with underlying systemic conditions, but it was statistically insignificant. Mesioangular impaction was found to be associated with the most number of pathologies.

Conclusion: The prevalence of mandibular impaction was in Makkah KSA (%) compared with other populations. This study provides useful baseline data for the prevalence and pattern of mandibular impaction in the Makkah KSA. Clinical Significance: This study throws light on the pattern, type, and frequency of mandibular impacted teeth as per age, sex, and region among the population of Makkah KSA.

Recent Publications: 1. Sanadi Sajid Ahmed, Sabina Abid, Yasser Al-Thobaiti, S D Baliga and Mohammed Fayyaz (2015) Longstanding Unrecognized Wooden Foreign Bodies in Oro-facial Region, Report of three Cases: American Journal of Public Health Research. 3 (4): 157-161.

Materials and Methods: This study was conducted in the Department of Oral and Maxillofacial Surgery, Orotta School of Medicine and Dental Medicine and the Orotta Referral Medical and Surgical Hospital, Asmara, Eritrea. A total of 1,813 clinical and radiographic records [orthopantomograms] were assessed and 276 cases were selected for the study as per the inclusion criteria. They were evaluated for the frequency among the various age groups, gender and region along with the sides affected, angulation and level of impaction. The presence of systemic conditions and associated pathologies was also assessed according to the type of impaction.

Clinical significance: This study throws light on the pattern, type, and frequency of mandibular impacted teeth as per age, sex, and region among the population of Eritrea.

Results: The average age of these patients in the study was found to be 30 years, with the 20 to 30 years age group being the most affected (67.4%). Females (53.3%) were affected more than the males (46.7%). People from the Asmara region showed significantly more prevalence (79.7%) than the adjoining areas (20.3%). Mesioangular impaction was the most common angulation with a definite relationship to the age groups (p = 0.032). The level of impaction had no significant relationship to the age groups, gender, or region, although class I position A was found to be the most common type. Mesioangular class I position A impac-tion showed an apparent relationship with underlying systemic conditions, but it was statistically insignificant. Mesioangular impaction was found to be associated with the most number of pathologies (p = 0.001).

Conclusion: The prevalence of mandibular impaction was less in Eritrea (15.2%) compared with other populations. This study provides useful baseline data for the prevalence and pattern of mandibular impaction in the Eritrean population.