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A COMPARISON BETWEEN CLINICAL AND RADIOGRAPHICAL APPEARANCE OF LOWER THIRD MOLAR

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Abstract

Radiographical evaluation by orthopantomography (OPG) and surgical extraction of impacted lower third molar are done to 67 patients (32 male) and (35 female) visiting Basrah Dental College, department of oral and maxillofacial surgery (2013-2014). Thirty nine patients are between 18-29 years, 77.6% are partially impacted and 22.4% completely impacted, the main complaint is pericoronitis (55.2%). The OPG accuracy in this study was as follows: concerned with dilacerated roots, K-value was <0, which means: Less than chance agreement of the OPG radiography in compare with clinical appearance of the teeth, also in relation to the normal appearance of the roots radiographically show (0.64) which is substantial agreement with the clinical appearance. While K-value gives a perfect agreement of the OPG to both fused (0.97) and extra-root >1 morphology.

Introduction

Complex hereditary factors (like the patterns of facial growth, jaw development and tooth size) effect the third molar eruption and they differ among populations, races and genders. All these factors are playing a role in impaction of lower third molar[1]. An impacted tooth is one that fails to erupt into normal position, however they remains completely or partially embedded and covered by bone or gum tissue[2]. Wisdom teeth develop between the ages of 14 and 25. However, tooth movement can continue beyond the age of 25[3]. To assess the path of surgical removal of impacted tooth and thus for a successful surgery, it is important for the surgeon to know the classification of impacted molar teeth which include: classification of Winter's and Pell that are based on the inclination of the impacted tooth to the long axis of the second molar, this classification includes: horizontal, vertical, buccal, lingual, mesioangular or destoangular inclination[4]. Other classification is of Gregory that is based on the nature of the covering tissues either partial or complete bony impactions[5].

Surgical extraction of the third molar is the most common surgical procedure achieved in the clinical practice of oral surgery. Some impacted third molar are not associated with any abnormal changes, but surgeon becomes warred if there is a lack of the space for eruption, mal-positioning, or pathological changes. Detailed morphologic analysis of the third molar and its relationship to adjacent structures and surrounding tissues are important for preoperative assessment[6,7].

Impacted tooth assessment depends on history, examination and radiography. There are many techniques of radiographies, but the method of choice is orthopantomography (OPG), because one can evaluate the angulation of the third molar and its relation to the adjacent tooth and surrounding tissues[8], also help the surgeon to choose the most appropriate techniques (how to split tooth, where to