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Radiographic Predictors of Mandibular Third Molar Extraction Difficulties under General Anaesthetic

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Abstract : Aim: There are many methods available to assess the potential difficulty of third molar surgery. This study investigated various factors to assess whether they had a bearing on the difficulties encountered. Study design: A retrospective study was completed of 62 single mandibular third molar teeth removed under day case general anaesthesia between May 2016 and August 2016 by 3 consultant oral surgeons. Method: Data collection was by examining the OPG radiographs of each tooth and recording the necessary data. This was depth of impaction, angulation, bony impaction, point of application in relation to second molar, root morphology, Pell and Gregory classification and Winters Lines. This was completed by one assessor and verified by another. Information on medical history, anxiety, ethnicity and age were recorded. Case notes and surgical entries were examined for any difficulties encountered. Results: There were 5 cases which encountered surgical difficulties which included fracture of root apices (3) which were left in situ, prolonged bleeding (1) and post-operative numbness >6 months(1). Four of the 5 cases had Pell and Gregory classification as (B) where the occlusal plane of the impacted tooth is between the occlusal plane and the cervical line of the adjacent tooth. 80% of cases had the point of application as either coronal or apical one third (1/3) in relation to the second molar. However, there was variability in all other aspects of assessment in predicting difficulty of removal. Conclusions: Of the cases which encountered difficulties they all had at least one predictor of potential complexity but these varied case by case.

Keywords : impaction, mandibular third molar, radiographic assessment, surgical removal
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