Evaluation of Recently Proposed Scales as Predictors of Mandibular Third Molar Extraction Difficulty

Abstract

Background: The Prediction of extraction difficulty of impacted mandibular third molar (M3M) is extremely important for both patients and clinicians. Recently, many new difficulty-estimating indices had been proposed, among them are, Zhang et al., Kim et al., Pernambuco, Lainez et al., and Roy et al. indices. This study aimed to evaluate the validity of these new scales as preoperative predictors of the difficulty of surgical removal of impacted M3M.

Material and Methods: The five scales under study predicted extraction difficulty of a series of 50-impacted M3M preoperatively, and postoperative difficulty was assessed with Parant scale (PS) and by the time required for surgery (TS).

Results: The proposed indices had low to moderate sensitivity (21%-45%, 41%-67%) and variable in their specificity (21%-86%, 36%-85%).

Only three out of five evaluated indices have shown a statistically significant correlation with both, the operation time and the surgical technique; namely, Zhang et al., Pernambuco, Lainez et al. indices.