LETTER TO THE EDITOR

Letter to editor on “Comparison of panoramic radiography and cone beam CT in the assessment of juxta-apical radiolucency”

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Dear Editor.

We read with great interest, the article “Comparison of panoramic radiography and cone beam CT in the assessment of juxta-apical radiolucency”, published in the first 2018 issue of *DMFR* by Nascimento EHL et al, and appreciate the authors due to select a topic, which very restricted studies have worked on it. In this study, presence or absence of juxta-apical radiolucency (JAR) have been detected by panoramic and cone beam CT(CBCT) radiography.¹ Both have some degrees of errors in detection of intrabony defects. As a result, more definitive and reliable outcome could be obtained by comparing the statistics, derived from these paraclinical methods with real proven defects. We inquire the authors, if they defined any pre- or postsurgical standard method to prove the correctness or fallacy of JAR detection in panoramic and CBCT radiography images.

Simulated defects, embedded in three-dimensional printed models, filled with biomaterials, could be utilized to evaluate the accuracy of panoramic and

CBCT, instead of comparing them, which both may have false negative and false positive results. The latter could not be determined in this study, due to the lack of a gold standard to compare. Kapila R et al, analyzed the position and relationship of JAR to the mandibular canal and buccal and lingual cortical plates by CBCT.² They compared the results to a control group, age- and sex-matched with test group. Control group would enhance reliability of interpretations, made on effects of JAR on surrounding structures.

JAR is defined in the article as “increased space between trabeculae of cancellous bone”. A potential method for improving accuracy of JAR detection for *in vivo* studies, could be high resolution MRI, which is able to identify JAR-size defects in bone.³

Kousar Ramezani and Maryam Foroozandeh
Department of Oral and Maxillofacial Radiology, Dental School, Hamadan University of Medical Sciences, Hamadan, Iran

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