Letter to the editor

JPIS Journal of Periodontal & Implant Science

J Periodontal Implant Sci 2012;42:144 • http://dx.doi.org/10.5051/jpis.2012.42.4.144

Commentary on "Reliability of two different presurgical preparation methods for implant dentistry based on panoramic radiography and cone-beam computed tomography in cadavers"

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To the editor:

I was interested to read the paper by Hu et al. [1] published in the April 2012 issue of the *Journal of Periodontal & Implant Science* The authors aimed to determine the reliability of presurgical planning based on the use of two types of radiographic image (digital panoramic radiography [DPR] and cone-beam computed tomography [CBCT]) evaluated by beginner dentists placing implants. They report the mean presurgical measurement error was significantly smaller for CBCT than for DPR in the maxillary region, whereas it did not differ significantly between the two imaging modalities in the mandibular region. As the authors point out in their conclusion: "Presurgical planning can be performed safely using DPR in the mandible; however, presurgical planning using CBCT is recommended in the maxilla when a structure in a buccolingual location needs to be evaluated because this imaging modality supplies buccolingual information that cannot be obtained from DPR." [1].

Why did the authors not use the exact intra-class correlation coefficient for quantitative variables?

Furthermore, why did the authors did not report the weighted kappa for qualitative variables to assess the reliability?

Regarding reliability or agreement, it is worth remembering that although statistics cannot provide a simple substitute for clinical judgment, it is crucial to at least avoid the common mistakes in reliability analysis of using the wrong tests, such as the *t*-test (paired or independent), Pearson correlation coefficient r, or method of least squares [2-5].

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Received: May. 22, 2012; **Accepted:** Jun. 12, 2012

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pISSN 2093-2278
eISSN 2093-2286