

Response to Letter

Letter to the Editor: Authors' Response



We appreciate the interest and the comments by Dr Herald Luis Dias da Silveira and his colleagues about our article titled "Assessment of Carotid Artery Calcifications on Digital Panoramic Radiographs and Their Relationship With Periodontal Condition and Cardiovascular Risk Factors."¹ We think that these comments and responses will be a guide for future studies.

Silveira et al. drew attention to the evaluation of all panoramic radiographs by a single radiologist and stated that it was preferred to conduct the study with more than one observer. However, in the literature, there are numerous valuable studies on this subject in which there is only one experienced dentomaxillofacial radiologist observer.^{2–7} Moreover, in the study by Agacayak et al., they mentioned that all images were evaluated by the same experienced radiologist to minimise observation discrepancies.⁵ In our study, consistent with the literature, all images were assessed twice by the dentomaxillofacial radiologist with 30 days' interval between assessments and intraobserver agreement was calculated ($\kappa = 0.89$). In addition, it was stated in the discussion section that this issue is one of the potential limitations of our study.

Another comment by Silveria et al. was about the figures that were used to show suspected carotid artery calcifications (CACs) on the digital panoramic radiographs. In the present study, as described in many studies, the CAC findings were characterised as one or more radiopaque nodular masses close to the cervical vertebrae at or below the level of the intervertebral space between C3 and C4 on the panoramic radiograph.^{2,5,8} CACs can be confused with other soft tissue calcifications in the same radiologic region, such as the triticeous cartilage calcification. However, it is not possible to make an accurate diagnosis without Doppler ultrasonography, which is used as the gold standard for diagnosis of atherosclerosis.⁹ Because of its retrospective design, Doppler ultrasonographic examination could not be used in the present study, which is a main limitation of the study. In the criticism made, it was claimed that the images used in the publication were triticeous cartilage calcification, but it is impossible to make this distinction without advanced imaging techniques such as duplex ultrasonography, magnetic resonance imaging, and angiography.

Finally, we did not report any findings regarding the accuracy of panoramic radiographs because we did not confirm suspicious calcifications with advanced imaging techniques.

However, panoramic radiographs are a routine part of the dental examination and are a helpful and important tool for suspecting calcifications and referring the patient to a specialist.⁷

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