

Accuracy in the diagnosis of the mental nerve loop. A comparative study between panoramic radiography and cone beam computed tomography [Precisión en el Diagnóstico del Bucle del Nervio Mental. Estudio Comparativo entre Radiografía Panorámica y Tomografía Computadorizada de Haz Cónico]

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Dental implant and chin osteotomy are executed on the mandible body and the mental nerve is an important anatomical limit. The aim of this research was to know the position of the mental nerve loop comparing result in panoramic radiography and cone beam computed tomography. We analyzed 94 hemimandibles and the patient sample comprised female and male subjects of ages ranging from 18 to 52 years (mean age, 35 years) selected randomly from the database of patients at the Division of Oral Radiology at Piracicaba Dental School State University of Campinas; the anterior loop (AL) of the mental nerve was evaluated regarding the presence or absence, which was classified as rectilinear or curvilinear and measurement of its length was obtained. The observations were made in the digital panoramic radiography (PR) and the cone beam computed tomography (CBCT) according to a routine technique. The frequencies of the AL identified through PR and CBCT were different: in PR the loop was identified in 42.6% of cases, and only 12.8% were bilateral. In contrast, the AL was detected in 29.8% of the samples using CBCT, with 6.4% being bilateral; Statistical comparison between PR and CBCT showed that the PR led to false-positive diagnosis of the AL in this sample. According to the results of this study, the frequency of AL is low. Thus, it can be assumed that it is not a common condition in this population. © 2015, Universidad de la Frontera. All rights reserved.

Cone-beam computed tomography

Mental nerve loop

Panoramic radiography