

Assessment of mesial root morphology and frequency of mb2 canals in maxillary molars using cone beam computed tomography [Determinación de la morfología de la raíz mesial y la frecuencia del canal mb2 en molares maxilares usando tomografía computadorizada de haz cónico]

Abarca J.

Gómez B.

Zaror C.

Monardes H.

Bustos L.

Cantin M.

The aim of this study was to assess the morphology of the mesial root canal system of maxillary molars and the frequency of MB2 canals using cone-beam computed tomography (CBCT). A total of 1374 teeth, first maxillary (1MS, n= 802) and second maxillary molars (2SM, n= 572) of 508 Chilean patients between 8 to 77 years were evaluated through CBCT. The mesiobuccal root was evaluated in all three thirds. Root canal morphology was classified according to Vertucci's method. Data were analyzed by Pearson's Chi-square and Cuzick trend tests. MB2 canal frequency in 1MS was 73.44% and in 2MS 42.48%. The most frequent morphology in 1MS and 2MS were Vertucci type II and I, respectively. No statistically significant association was found between frequencies and side or according to gender ($P>0.05$). A positive association was found as the age increased in both 1MS and 2MS ($P<0.001$ and $P= 0.023$, respectively). Given the anatomical complexity of the mesiobuccal root and the frequent presence of the MB2 canal, the clinician must assume the existence of two canals in this root. CBCT scanning is a good way to initially identify this canal in the different root thirds. © 2015, Universidad de la Frontera. All rights reserved.

CBCT

Maxillary molars

MB2

Root canal system

Secondary mesiobuccal canal