


Images in clinical medicine

Maxillary 1st molar with three canals in mesiobuccal root

 Akash Jitender Sibal, Shriya Ravindra Singi

Corresponding author: Akash Jitender Sibal, Department of Conservative Dentistry and Endodontics, Sharad Pawar Dental College and Hospital, Datta Meghe Institute of Medical Sciences (Deemed to be University), Wardha, India. akashsibal218@gmail.com

Received: 10 Apr 2022 - **Accepted:** 06 Jun 2022 - **Published:** 16 Jun 2022

Keywords: Maxillary 1st molar, mesiobuccal canal, obturation

Copyright: Akash Jitender Sibal et al. Pan African Medical Journal (ISSN: 1937-8688). This is an Open Access article distributed under the terms of the Creative Commons Attribution International 4.0 License (<https://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Cite this article: Akash Jitender Sibal et al. Maxillary 1st molar with three canals in mesiobuccal root. Pan African Medical Journal. 2022;42(125). 10.11604/pamj.2022.42.125.34812

Available online at: <https://www.panafrican-med-journal.com//content/article/42/125/full>

Maxillary 1st molar with three canals in mesiobuccal root

Akash Jitender Sibal^{1,&}, Shriya Ravindra Singi¹

¹Department of Conservative Dentistry and Endodontics, Sharad Pawar Dental College and Hospital, Datta Meghe Institute of Medical Sciences (Deemed to be university), Wardha, India

&Corresponding author

Akash Jitender Sibal, Department of Conservative Dentistry and Endodontics, Sharad Pawar Dental College and Hospital, Datta Meghe Institute of Medical Sciences (Deemed to be University), Wardha, India

Image in medicine

A comprehensive knowledge of the root and canal configuration is a prerequisite before initiating any endodontic procedures. A 32-year-old male reported to the department of conservative dentistry and endodontics with a complaint of pain associated with tooth #16 (maxillary first molar). Patient was experiencing pain since more than 25 days and was on medication for symptomatic relief. Initial clinical examination revealed the probability of periapical or phoenix abscess as the tenderness on percussion test was positive and the pulp showed no response during the pulp vitality test. However, the intraoral periapical radiograph

depicted distoproximal caries but no signs of abscess or radiolucency in the periapical region associated with #16, and the patient was diagnosed with symptomatic irreversible pulpitis. Root canal therapy was planned for the patient. During access cavity preparation an unusual occurrence of three canals in the mesiobuccal root of #16 was found. So, there was a total of five canals in the three rooted #16. All canals were biomechanically

prepared and obturated to achieve a hermetic seal. The current case presentation emphasizes on the high possibility of unexpected variations in the root and its canal morphology. Awareness regarding such variations will minimize the intra-operative complications during root canal therapy and will avoid root canal failure.



Figure 1: pre-operative radiograph showing distoproximal caries (A); access opening showing three canal orifices in mesiobuccal root (B); working length determination (C); evaluation of master cone fit (D); obturation with gutta percha (E)