

⁶ **Name of Journal:** *World Journal of Clinical Cases* ¹

Manuscript NO: 54510

Manuscript Type: CASE REPORT

**Endodontic management of the maxillary first molar with special root canals:
A case report and review of literature**

Zhi-Hui Zhang, Hai-Lin Yao, Yan Zhang, Xiao Wang

Abstract

BACKGROUND

As the complex anatomy of maxillary first molars is one of the major challenges in endodontic therapy, knowledge of the complicated root canal anatomy and configuration is crucial to ensure the success of endodontic treatment and prognosis. This article presents an endodontically managed left maxillary first molar with unusual palatal root morphology. The available literature on the

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Endodontic management of the maxillary first molars with ...

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6327126>

Jan 06, 2019 · The complex **anatomy** of the **maxillary first molars** has always been a major challenge for **complete root canal treatment** in **endodontic therapy**. Here, we present two cases of **maxillary first molars**, each with only **two root canals**, which have been rarely reported. We also perform a literature review of **maxillary first molar anatomy**.

Cited by: 1 Author: Jie Liu, Ke-Hua Que, Zuo-Hui Xiao, Wen Wen
Publish Year: 2019

Endodontic management of a maxillary first molar with ...

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2980616>

Majority of endodontic literature describe the maxillary first molar as having three roots and four root canals, with **two canals** in **mesiobuccal root**. In most of the **teeth**, the location of **MB2 orifice** opening is usually found mesial to an imaginary line between the MB1 and palatal orifices, and at about 2 to 3 mm from the **MB1 orifice**.

Endodontic management of a maxillary first molar with two ...

<https://onlinelibrary.wiley.com/doi/10.1111/aej.12320>

This case report describes the **endodontic treatment of a maxillary first molar** with two **palatal** roots. Both of the **palatal** canals had separate **canal** orifices and separate foramina. A cone beam computed tomography scan was taken prior to treatment to visualise any abnormalities seen on ...

Author: Alexander Schryvers, Dries Govaerts, Dr... Publish Year: 2019

Endodontic Management of a Maxillary First Molar with Two ...

<https://www.hindawi.com/journals/crid/2012/389387>

There are rare variations in canal number and configuration in maxillary molars, which could affect treatment outcome. This paper presents the endodontic management of a maxillary first molar with two palatal canals in one root (**Vertucci type IV**) and a **single buccal canal**. In this paper **cone-beam computed tomography** was made to asses this morphology.

Cited by: 2 Author: Leila Atash biz Yeganeh, Mamak Adel, Rez...
Publish Year: 2012

Management of a failed endodontic treatment for a ...

<https://onlinelibrary.wiley.com/doi/full/10.1002/ccr3.1708>

Jul 13, 2018 · The anatomical complexities of the **root canal system** have been accentuated as one of challenges for **endodontists** and researchers. Despite all procedural protocols, missing a canal or an **extra root** can lead to treatment failure. **Permanent maxillary molars** often have three **roots**, one **palatal** and **two buccal** with a **root canal** in each **root**.

Author: Ahmed Al Qahtani, Saleem Abdulrab, H... Publish Year: 2018

Root and Root Canal Morphology of the Human Permanent ...

<https://www.researchgate.net/publication/6853148...>

The objective of this study was to review the literature with respect to the root and **canal systems** in the maxillary first molar. **Root anatomy studies** were divided into **laboratory studies** (in vitro), **clinical root canal system anatomy studies** (in vivo) and clinical case reports of anomalies.

(PDF) Endodontic management of a maxillaryfirst molar with ...

<https://www.researchgate.net/publication/281273798...>

This case report presents a successful **endodontic management** of **left maxillary first molar with three palatal** canals. This rare **root canal morphology** was diagnosed using dental operating ...

Author: Osama Sherwani

Maxillary Sinusitis of Endodontic Origin - Decisions in ...

<https://decisionsindentistry.com/article/maxillary-sinusitis-of-endodontic-origin>

Patient Symptoms: Diagnosing MSEO can be challenging because patients with this condition experience a wide variation of dental and sinonasal symptoms (including no symptoms). Typical endodontic symptoms are often not present with MSEO. For example, thermal pain is usually absent because source teeth for MSEO are most often necrotic or have failing endodontic therapy. Percussion tenderness is typically absent in MSEO because periapical infection is essentially draining into the sinus, elimina...

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Jan 06, 2019 - In **case 2**, a **preoperative intraoral periapical radiograph** revealed a maxillary first molar with an unsatisfactory root canal filling, with two roots and an obvious low-density image around the **periapical area**, thus indicating **severe inflammation**.

Cited by: 1

Author: Jie Liu, Ke-Hua Que, Zuo-Hui Xiao, Wen ...

Publish Year: 2019

Endodontic Management of a Maxillary First Molar with Two ...

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3530753>

The present **case** was the **endodontic management** of a **maxillary first molar** with two **palatal canals** in one **root** and one **buccal root canal**. Although the incidence of a second **palatal canal** and even a single **buccal root canal** is not high, it is important to take these abnormalities into consideration during **root canal therapy of maxillary molars** in order to prevent accidents and ensure successful long ...

Cited by: 2

Author: Leila Atash biz Yeganeh, Mamak Adel, R...

Publish Year: 2012

Endodontic management of the maxillary first molars with ...

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Endodontic management of the maxillary first molars with two root canals: A case report and review of the literature Jie Liu, Ke-Hua Que, Zuo-Hui Xiao, Wen Wen Jie Liu, Ke-Hua Que, Wen Wen, Department of Endodontics, College of Stomatology, Tianjin Medical University, Tianjin 300070, China

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Author: Jie Liu, Ke-Hua Que, Zuo-Hui Xiao, Wen ...

Publish Year: 2019



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Jan 06, 2019 · In case 2, a **preoperative intraoral periapical radiograph** revealed a maxillary first molar with an unsatisfactory root canal filling, with two roots and an obvious low-density image around the **periapical area**, thus indicating **severe inflammation**.

Cited by: 1

Author: Jie Liu, Ke-Hua Que, Zuo-Hui Xiao, Wen ...

Publish Year: 2019

[Radix Distolingualis: A Case Report, Review and Endodontic ...](#)

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5535493>

But the presence of an additional **palatal root** is rather uncommon and has been reported to have an incidence of 1.4%. The extra root is located **mesiolingual** or distolingual to the primary **palatal root**. This is a unique case report that describes the successful endodontic management of a maxillary second molar with **Radix Distolingualis (RDL)**.

Author: Arunajatesan Subbiya, Suresh Mitthra...

Publish Year: 2017

[Case Report: Endodontic retreatment of a mandibular first ...](#)

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3962883>

Mar 20, 2014 · The purpose of the present article is to **report** successful non-surgical retreatment of a mandibular **first molar** with five **canals**. This **case report** discusses the clinical **management** of a previously **root** filled mandibular firstmolar with two missed canal systems; distolingual and an additional mesial canal known as the middle mesial canal.

Cited by: 5

Author: Muhammad Hasan, Fahad Umer

Publish Year: 2014

[Endodontic Management of Maxillary Second Molar Tooth with ...](#)

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7021452>

Feb 01, 2020 · The majority of variations seen in the maxillary molar are seen with the maxillary first molar. Variations in root canal anatomy of the **maxillary second molar** are quite rare. **Kim et al.** [7] in their study using **CBCT** found the incidence of a single-rooted maxillary second molar to be 10.7% in the **population** and **Zhang et al.** [8] found the incidence to be 10% in the Chinese population.