

# A Report of a Rare Case of a Midline Palatal Abscess in a Paediatric Patient

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**Abstract** Midline palatal swelling in children is exceptionally rare. Periodontal abscess from palatal pockets and apical abscess of palatal roots of maxillary posterior teeth are source of palatal abscesses. The palatal abscess is often observed in premolar-molar region showing fluctuant mass or swelling, commonly lateral to midline. We report a rare case of a palatal swelling in the midline, in a 10 year old female patient.

**Keywords:** *palatal abscess, midline, pediatric patient*

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## 1. Introduction

Any palatal swelling in the midline of palate can cause difficulty in diagnosis to the clinician. Palatal masses could be a result of periapical lesions, periodontal abscesses or neoplastic processes. [1] Palatal abscess from molar infection is surprisingly uncommon and when it occurs the most common tooth involved is maxillary molar and rarely lateral incisors. [2,3] Palatal abscess often occurs in premolar-molar region showing fluctuant mass or swelling lateral to midline [1].

We report a rare case of midline swelling of the palate in a 10 year old child.

## 2. Case Report

A 10 year old female patient reported to the Department of Oral and Maxillofacial Surgery in SJM Dental college Chitradurga with a complaint of swelling in the palate and pain in the upper right back region of mouth since 1 month. Patient also gave history of having received various treatments from local dentists and general surgeons but was not relieved of symptoms.



**Figure 1.** Pre-operative Intraoral View

Intra oral examination revealed a fluctuant swelling measuring about 4 cm X 3cm in the midline of hard palate which extended posteriorly up to distal aspect of permanent first molar. She also presented with grossly destructed upper right first molar which was tender on

percussion. Vitality test confirmed non vital first molar (Figure 1). A probable diagnosis of palatal abscess secondary to odontogenic infection was arrived at considering the clinical appearance and radiographic investigations.



**Figure 2.** Occlusal radiograph



**Figure 3.** 5<sup>th</sup> Post operative day- Intraoral view



**Figure 4.** 14<sup>th</sup> Post operative day- Intraoral view

Aspiration of fluid confirmed the presence of odorous pus which was sent for culture and sensitivity test. Occlusal radiograph revealed carious right upper first molar and showed no significant bony changes (Figure 2). After obtaining consent from parents she was treated by extraction of upper right first molar and drainage of pus. The pus was drained by giving anteroposterior incision through the mucosa down to the bone taking care to avoid the Greater palatine nerve and vessels. Pus was evacuated using curved mosquito. Corrugated rubber drain was inserted and secured with suture. The same was removed after 24 hrs. Patient was followed up regularly for 14 days and recovery was uneventful (Figure 3 and Figure 4).

### 3. Discussion

Odontogenic infections are the most common of all the infections of head and neck. They arise from pulpal disease, periodontal disease, secondarily infected cysts or odontomes, root fragments, residual infection or pericoronal infections. [3,4] Serious dental infection spreading beyond tooth socket is more common due to pulpal infection than periodontal infection. These infections spread along the path of least resistance into anatomic spaces far from the site of initial infection. [5,6] The progress of periapical infection depends on number and virulence of organism, host resistance and anatomy of the involved area [3].

Periodontal abscess from palatal pockets and apical abscess of palatal roots of posterior teeth are source of palatal abscess. Occasionally lateral incisor is the frequent cause. The palatal abscess is often observed in premolar-molar region showing fluctuant mass or swelling lateral to

midline [1]. As opposed to this our case presented with midline swelling causing a diagnostic dilemma.

Palatal space is bound inferiorly by the cortical plate of hard palate, superiorly by overlying periosteum and mucosa, and laterally by the alveolar process of maxilla and the teeth [3].

Definitive treatment of odontogenic infection should begin with evacuation of pus. An abscess should be drained even if the patient is toxic, since toxemia usually results from the absorption of degenerated tissue products and bacterial toxins and will continue until the pus has been evacuated. However it is important to note that toxic patients should be given antibiotics and are also properly hydrated [4]. Palatal abscess should be treated by extraction or pulpectomy of the offending tooth along with incision and drainage of pus [1]. In our case the first molar was extracted and pus was drained by giving anteroposterior incision.

### 4. Conclusion

Palatal abscess occurring in midline poses a diagnostic dilemma. Thorough knowledge of physiologic and anatomic factors that influence the spread and localization of dental infections is mandatory. Early extraction of offending tooth and incision and drainage tend to shorten the usual course of infection and further complications.

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