Foreign body in the hard palate - A case report.

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INTRODUCTION:

Various objects can invariably end up being inserted into the oral cavity of children due to their inquisitive nature of children to explore surrounding objects with their tactile sensation.¹ Foreign bodies embedded in the palate are uncommon findings and may occasionally mimic oral lesions. Most cases occur in infants and children and are usually accompanied by poor history and difficulty in clinical examination, which may be a problem to establish an accurate diagnosis.²,³

CASE REPORT:

A nine year old male patient reported to the dental clinic with a chief complaint of decay in the upper left back tooth since six months. It was not associated with any pain or discomfort. The patient’s mother gave a history of thumb sucking since the child was one year old. Thumb sucking was seen at bedtime and when the child was left alone. All methods adopted by the parents and other family members to discontinue the habit were unsuccessful. These methods included verbal reprimand and the application of neem oil and nail polish on the child’s thumb. The child was made to wear socks and even a long sleeved shirt, so as to make the thumb inaccessible for sucking. Examination of the offending digit revealed a deformed and slightly shortened thumb with a clean

ABSTRACT:

Foreign body in the hard palate is an uncommon finding which may mimic other oral lesions. This case describes an accidental finding during routine dental examination. The following report is the unusual presentation of a foreign body in the hard palate due to the child’s oral habit and treatment rendered for the same.

KEYWORDS:


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Figure 1: A - The child had a well circumscribed anterior open bite. B - Dark black spherical asymptomatic mass of about 0.5 cm in diameter, present beneath the palatal mucosa along the midpalatal raphe. C- Maxillary anterior occlusal radiograph. D -Vertical incision along the mid palatal.
nail bed. Intra oral examination showed a U shaped maxillary arch, hypoplastic primary canines and dental caries in relation to 64, 65. The child had a well circumscribed anterior open bite, with a simple tongue thrust swallow (Figure 1:A). Soft tissue examination revealed a dark black spherical asymptomatic mass of about 0.5 cm in diameter, present beneath the palatal mucosa along the mid-palatal raphe. On palpation it appeared to be firm and fixed (Figure 1:B). Maxillary anterior occlusal radiograph of the region did not show any abnormality (Figure 1:C).

Oral prophylaxis followed by restoration was done in relation to 64, 65. Surgical removal of the palatal mass was planned under local anesthesia. Prior to surgery, routine blood investigations were carried out. The area was anesthetized by giving a bilateral greater palatine block. A vertical incision was made using Bard Parker blade no. 15 along the mid palatal raphe followed by a horizontal incision, (Figure 1:D) placed perpendicular to the previous incision. Reflection of the tissue flap showed a dark colored object. Since it was fragmented, removal was done using a fine tweezer. In order to dislodge a fragment that was embedded a conservative approach was used. Less than 1 mm of overlying bone was removed with a No. 703 straight fissure bur along with copious saline irrigation. Following irrigation the tissue margins were approximated and closed with interrupted sutures (Figure 2:A). Routine post surgical instructions were given, with particular attention to diet and oral hygiene. Patient was prescribed antibiotics and analgesics. On macroscopic examination, the fragments were black in color and thread like (Figure 2:B). Sutures were removed three days post operatively.

Histopathological examination revealed the presence of a foreign body in the connective tissue. Examination following first week showed the palatal mucosa was healing well. Hawley’s appliance along with incorporation of a palatal crib was given to prevent both thumb sucking and tongue thrusting.

**DISCUSSION:**

Intra-osseous hard palate foreign body is an uncommon condition and only small number of cases have been reported, almost all of them being pediatric patients.\(^{1,2,4,5}\) In fact, there have been reports of foreign body in the oral cavity of neonates and infants.\(^{1,2,4,5}\) The most important consideration with regard to foreign bodies intra-orally is the risk of dislodgement and subsequent aspiration. The possible outcomes of aspiration include acute respiratory distress, chronic and irreversible lung injury or even death.\(^{6}\) In the age group of under six years of age, injuries to the mouth and oropharynx are usually caused by objects such as screw cover\(^{1,2,4,5}\), bicycle derailier cap\(^2\), nut shell\(^2\), clothing button\(^2\), pistachio nutshell and billiard cue tip and cylindrical toys\(^5\), pens, pipes, a press on nail\(^1,2\), plastic teddy bear nose\(^3\), plastic cap of a ward robe puller\(^6\). Reports of injury with tooth brushes, mainly to the oral vestibule have also been published.\(^7\) Two factors decisive for misdiagnosis are poor patient history and non contributory information given by the parent, particularly on lesion appearance and development.\(^6\) Objects embedded in the palatal mucosa for a long period may pose additional difficulties in removal and may lead to granulation tissue formation with inflammation of the palatal mucosa.\(^2,8\)

Foreign bodies often incite a chronic inflammatory reaction with the deposition of mineral salts, similar to other types of calculi formation such as sialolithiasis, rhinolith and tonsillolith.\(^6\) In the present case, the thumb sucking habit could have been responsible for foreign body lodgment in the palate. After removal of the foreign object the mucosa usually heals uneventfully and returns to normality.\(^2,8\)

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Nil.

**CONFLICTS OF INTEREST:**

There are no conflicts of interest.

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