ABSTRACT

Foreign bodies are a common occurrence in pediatrics, which health care professionals usually encounter in cases where children accidentally swallow a foreign body or stick objects in their ears or nose. A child with a foreign body stuck to the hard palate, however, is a rare occurrence. Foreign bodies embedded in the palate are uncommon findings and may occasionally mimic oral lesions. In the majority of the cases, foreign body embedment in the palate happens in infants and children who are unable to give history. We present a case of 9 months old boy with foreign body embedded in hard palate for 4 weeks.

INTRODUCTION

Foreign bodies embedded in the palate are uncommon findings, and may occasionally mimic oral lesions. Most cases occur in infants and children, which may be largely attributed to their curious nature and in part secondary to mental retardation, attention deficit hyperactivity disorder, and the absence of watchful caregivers. Moreover, the contour of an infant's hard palate lends itself to retention of objects because of thumb sucking and feeding action.\(^1\) Such cases are usually accompanied by a poor history and difficulty in clinical examination, which may be a problem in establishing an accurate diagnosis.\(^2\) As complications, foreign bodies may be swallowed or aspirated, sometimes creating life-threatening situations. The main aim of this case report was to highlight and discuss the occurrence of foreign bodies in the oral cavity of young children.

CASE REPORT

An otherwise healthy nine-month-old male infant was brought to the Oral and Maxillofacial Surgery department of UCMS College of Dental Surgery by his mother with an asymptomatic mass on the hard palate for 4 weeks. It was noticed first by his mother and they consulted the local hospital. The attending physician prescribed antibiotics and reassured the patient party that this finding was nothing to be concerned about. The parents were unconvinced with this advice and the case was referred to Department of Oral Surgery for evaluation. Clinical examination was difficult due to infancy and its uncooperative...
nature. However, on inspection shiny, circular, black-coloured sessile mass measuring approximately 1 cm in diameter was found on the vault of the anterior palate (Figure 1), well demarcated from surrounding tissue mimicking palatal lesion of minor salivary gland origin (Necrotizing Sialometaplasia). On palpation with the gloved finger, it felt firm, and non-penetrable and its texture was different from the palatal mucosa.

After examination, a provisional clinical diagnosis of a possible foreign body was made. Unknown to the thickness of the foreign body and depth of embedment, we first planned the computed tomography of the lesion and possible intervention under general anesthesia. However, we proceeded with atraumatic manipulation of the lesion with Molt’s no. 9 periosteal elevator and, fortunately a foreign body approximately one cm in diameter, circular, <1 mm in thickness, plastic-like shiny sheet was successfully retrieved from the palate (Figure 2). After retrieval, palatal mucosa was left with the well-defined impression of the foreign body (Figure 3).

Figure 2: Retrieved foreign body

Figure 3: Impression of foreign body in the anterior hard palate after its removal

DISCUSSION

Impaction of foreign bodies to the palate seems to be more common in infants under the age of 2 years. The mechanism of attachment is likely related to both the anatomy of the pediatric palate, which facilitates the attachment of foreign bodies due to vacuum formation between the object and the palatal mucosa, and the behavioural tendencies of small children who frequently place objects in their mouths. Concomitant thumb-sucking, pacifier use, and feeding may help form a tight seal to the hard palate. Parents/caregivers should be attentive to young children’s natural curiosity in exploring their environment using their hands and mouths, as serious consequences may result from accidental swallowing and aspiration of small objects. Foreign bodies of the hard palate can present in a variety of ways. The most common referring diagnosis in the literature is a suspected tumor. Other presentations include perforated palate, leukoplaikia, torus palatinus, infection, and feeding difficulties. Neoplasia of the palate is a rare diagnosis in the pediatric population, and therefore, should not be the original postulation when a lesion presents in this region. Foreign bodies are similarly rare in the hard palate but are relatively more common than neoplasm and should therefore be placed higher in the differential diagnosis. Proper examination of the oral cavity, including both visualization and palpation of the palate, is essential to make the proper diagnosis. A thorough examination of the oral cavity of small infants can be performed by sitting the child on the parent’s knee, facing away from the physician, and leaning the child back into the examiner’s lap in the head down position. In this way, foreign bodies of the hard palate are able to be diagnosed and removed early, thereby avoiding the risk of the potentially serious complication such as dislodgement with concomitant aspiration and pressure necrosis of the mucoperiosteum if removal is delayed. When clinical examination is well conducted, the use of sedation or general anesthesia for inspection is unnecessary in most cases. Another important issue is that imaging techniques, such as computed tomography (CT) and magnetic resonance imaging (MRI), may be misleading for diagnosis of palatal foreign bodies and induce equivocated interpretations.

Removal of these foreign bodies should be undertaken in an environment where airway control measures are readily available. The foreign body can often be removed in the clinic setting using foreign body forceps or an ear hook. The operating room setting with the administration of sedation or general anesthesia may be required if the foreign body is firmly embedded. The patient should be positioned in such a way that the foreign body is not likely to be aspirated upon removal. It is best to place the child in the lateral, slightly head-down position. This position works well in both the clinic and operating room. Alternatively, the child may be positioned sitting and leaning forward on parent’s lap. The object should be removed in a posterior to anterior direction. Objects which have been impacted for a long period of time may prove to be more challenging to remove as a ring of inflammation and granulation tissue may form around the object. After removal of the foreign body, the mucosal inflammation reaction responds to conservative measures.

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# References


