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DECIDUOUS TOOTH RETRIEVAL FROM TONSILLAR SAC: A RARE COMPLICATION OF ACCIDENTAL INGESTION

Dr. Anubhav Shivpuri* MDS, Dr. Priya Jeyaraj MDS

Department of Oral & Maxillofacial Surgery, AFDC.

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***Corresponding Author: Dr. Anubhav Shivpuri**
Department of Oral & Maxillofacial Surgery, AFDC, New Delhi.
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ABSTRACT

Ingestion of teeth is an uncommon event typically associated with trauma or an accident during dental procedures. Even more rare is the migration and retention of an ingested tooth in the tonsillar sac, which presents diagnostic and therapeutic challenges. This paper reports a rare case of a deciduous tooth lodged in the tonsillar sac after accidental ingestion and discusses its clinical significance, diagnostic approach, management, and prevention strategies.

KEYWORDS: Deciduous, Ingestion, Tonsillar sac, Retrieval, Complication.

INTRODUCTION

Accidental ingestion of teeth is a documented but an infrequent complication. When such an accident occurs, the common outcome includes spontaneous passage through the gastrointestinal tract or aspiration into the airway. There is a very rare possibility that it may get lodged in the oropharyngeal structures such as the tonsillar sac, as was the case in our case. Prompt diagnosis and management are essential to prevent complications such as infection, chronic foreign body sensation, and airway obstruction. This paper presents a unique case of a deciduous tooth lodged in the tonsillar sac.

CASE REPORT

A 09-year-old boy came to the dental department with mild discomfort and a foreign body sensation on the right side of his throat lasting few hours. The history indicated accidental ingestion of a loose lower deciduous incisor while sleeping, after which the child experienced brief coughing but no respiratory distress or severe pain. The patient intended to go to the ENT department but came to the dental OPD for opinion first.

Intra oral exam showed a missing right deciduous lateral incisor with no signs of soft tissue injury. Oropharyngeal inspection revealed mild erythema near the right tonsillar fossa without significant swelling. Visual inspection by further retracting the tongue with a tongue depressor caused discomfort, but a part of the tooth was visible lodged within the inflamed tonsillar sac.

As the patient was cooperative, immediate retrieval was planned and the tooth was removed using long, curved forceps with the patient in a supine position (Fig 1). The removal was straightforward, and the patient was prescribed a five-day course of antibiotics and analgesics. No postoperative complications occurred.

Fig. 1: Removed deciduous Lateral Incisor.

DISCUSSION

The tonsillar pouch (tonsillar fossa) in children has certain anatomical and physiological differences compared to adults, which are important to understand for clinical and surgical practice. In children, tonsils are proportionally larger compared to the size of the oropharynx. Exact quantitative measurements of the pouch itself are rarely standardized because it is a potential space that expands with the size of the palatine tonsil.

The palatine tonsils are two big masses of lymphoid tissue that comprise the lower lateral portion of the ring. They are located in a triangular tonsillar fossa on either side of the oropharynx's anterolateral border. In adults, the tonsils measure roughly 10 to 15 mm in breadth and 20 to 25 mm in length; however, in children, these measurements are higher. The lower portion of the masseter muscle in front of the mandibular angle is the tonsil's surface marker. The tonsillar fossa, which houses the palatine tonsils, is bounded by the palatoglossal (anterior pillar) and palatopharyngeal (posterior pillar) mucosal folds that separate from the soft palate.

The palatine tonsil comprises three mucosal folds, plica semilunaris, plica triangularis, and plica retrotonsillaris; two depressions, supratonsillar and anterior tonsillar fossa; two poles, upper and lower; two boundaries, anterior and posterior; and two surfaces, medial and lateral.

Tonsillar size peaks at around 4-7 years of age and begins to involute after puberty. The size of the tonsillar pouch generally correlates with the size of the tonsil.

Tonsillar Crypts: Tonsils in children typically have deeper crypts, which predispose them to recurrent infections and retention of debris.

Vascular Considerations: Although vessels are smaller in size in children, the vascularity is relatively high due to the active immune function of the tonsils during childhood. The peritonsillar vein and branches of the facial artery supplying the tonsillar region are smaller but remain critical to manage during paediatric tonsillectomy.

Neural Sensitivity: The glossopharyngeal nerve is closer to the tonsillar bed in children due to the smaller overall size of the oropharyngeal structures. Children may experience higher postoperative pain sensitivity due to this proximity.[1-4]

Accidental ingestion of teeth most commonly occurs during dental extractions, in children swallowing mobile deciduous teeth while chewing or during maxillofacial trauma. Usually, ingested teeth pass through the gastrointestinal tract and are excreted without any issue. However, ectopic lodging in the upper aerodigestive tract is rare, and migration into the tonsillar sac is almost unreported.

Possible contributing factors include-Ineffective swallowing reflexes in children, Tonsillar crypts acting as receptacles for foreign bodies, Coughing or sudden inhalation during ingestion leading to misdirection of the tooth.

If not recognized, retained teeth in the tonsillar area may cause Persistent foreign body sensation, Localized infections or peritonsillar abscess, Chronic irritation, rarely airway compromise if dislodged.

Diagnostic Tools include soft tissue X-ray: Aids in locating radiopaque foreign bodies.

OPG: Useful for detecting radiopaque objects in the oropharynx.

Flexible nasopharyngoscopy: Gold standard for direct visualization and localization.

Management Strategies include prompt identification and removal under direct vision, ensuring airway security during the procedure, using topical or general anaesthesia based on patient cooperation and the object's location.[5-10]

Prevention can be done by educating parents and caregivers about monitoring loose teeth in children and advising against chewing hard foods when mobile teeth are present.

CONCLUSION

This case highlights the importance of thorough examination and imaging in patients suspected of tooth ingestion, especially if the foreign body sensation persists. Although uncommon, the tonsillar sac should be considered during clinical assessments of complaints regarding foreign body sensation in throat. Early diagnosis and safe removal are vital to prevent complications.

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