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Case Report

A huge foreign body lodgement in the soft palate (uvula) – A rarest case report with literature review

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ABSTRACT

Foreign body retention in young children is commonly encountered phenomenon during dental practice. Because chewing and keeping of different objects is unusual finding seen in most of children. Foreign body lodgment in both primary and permanent dentition of teeth as well as in the soft tissues of the oral cavity have been reported. But retention of a huge foreign object in the uvula of the soft palate is not reported so far. Therefore, the aim of this article is to report such a rarest case of huge foreign object and its successful removal.

Keywords: *Children, Foreign body, Lodgment, Pediatric dentist, Soft palate, Uvula*

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INTRODUCTION

Pediatric dentist encounter children exhibiting variety of oral habits in day to day practice. Children are fond of chewing and keeping different objects in the oral cavity compared to adults. This activity is usually encountered during reading, watching television or mobile. These objects may vary in size, shape and composition (Table 1).[1-15] Most of the time, the chewing foreign objects in young children do not cause any harmful consequences. If chewing objects are small they usually lodge in the any large open carious defects found in the teeth and sometimes ignored by them. These lodged objects can lead to infection, pain and other health problems seeking dentists help.[1, 4]

Apart from teeth retention or impaction of foreign objects in different parts of oral cavity is also a commonly observed finding. Different authors have reported retention of variety of foreign bodies inside the oral cavity (Table 2).[16-19] Other than these, fish bone impaction in tongue base, pyriform sinus, palatine tonsils, vallecula is most commonly observed finding in children especially of Korean and Chinese children. This is because compared to adults; children have narrower laryngopharynx and larger tonsils.[19]

Literature search shows lodgment or retention of smaller objects soft tissue of oral cavity in children. Therefore the aim this case report is to report retention of huge foreign body (neck chain-artificial jewellary) in the uvula of the soft palate of an 10 year old Indian male patient.

CASE REPORT

A 10 year old boy along with his parents reported to the private dental practice complaining of lodgment of foreign object in the throat (Fig. 1).

Figure 1: Patient with retention of huge metallic neck chain in the mouth

Figure 2: Intraoral examination showing metallic chain lodged to the uvula of the soft palate

Patient was unable to close mouth and talk. On clinical examination patient appeared healthy. Patient mother gave a history of keeping foreign objects and chewing from many years while reading or watching television or mobile. On intraoral examination lodgment of big metallic chain in the uvula of the soft palate was found (Fig. 2). The free end of the chain was hanging outside the mouth. The hook of the chain was stuck to the uvula. With the help of needle holder by retracting tongue the metallic chain was removed successfully (Fig. 3 & 4).

Figure 3: Retrieval of metallic chain using needle holder

Figure 4: Picture of the foreign body after its removal showing hook at one side

Figure 5: Laceration of the soft palate seen after retrieval of the huge metallic chain

When metal chain was examined, a hook was noticed which while chewing it must have got accidentally stuck in the uvula of soft palate. On further examination, laceration was appeared in the soft palate (Fig. 5). Patient was advised soft, non-spicy diet, and analgesics for a week. Patient was recalled after a week and satisfactory healing of the wound appeared. Finally counseling about harmful consequences of foreign objects chewing was carried out for the patient.

DISCUSSION

Chewing and keeping foreign objects inside the mouth or tooth is a common finding in children especially of 3 to 12 year old and well documented in the literature (Table 1). Lodgment of different foreign objects inside the tooth including both primary and permanent teeth has been reported by the author. In 2012 published article, Nagaveni et al reported lodgment of stapler pins, glass bead and wooden stick in both primary and permanent teeth. But impaction of a foreign object (huge) in the soft tissue of oral cavity is not reported so far. In the present case report retention of a huge metallic (artificial jewellary-neck chain) chain in the uvula of soft palate and its successful removal has been reported and shows the pioneer report in the scientific literature. Impaction of broken sewing needle in the soft tissue of maxillary vestibule has been reported by

Passi & Sharma in 2012[18] which was successfully removed under local anesthesia. In 2019, Khalaf et al,[19] in their systematic review with case report article, reported impaction of plastic screw cap in the hard palate. Their systematic review revealed a total of 32 cases, with foreign bodies mistaken for other diagnoses in 24 cases. Khalaf et al[19] also showed that the mean duration from first presentation till removal was 56.9 days. Pertaining to different objects circular plastic covers were found in 20 cases and general anesthesia was used in 68% of the cases during retrieval of foreign objects. Soubhia et al, in 2007[16] reported a case of palatal calcified foreign body simulating an odontogenic lesion. Surgical exploration revealed a calcified mass that was analysed under light microscopy and identified as a vegetal foreign body. On their further scanning electron microscopy analysis, it was revealed that the foreign body was a piece of wood.

Sl. No.	Author & Year	Type of foreign body identified	Place of lodgement	Treatment rendered
1.	Prabhakar et al, 1998 [1]	Metal screw	Permanent mandibular molar	Extraction of the tooth
2.	Kalyan & Sajjan, 2010[2]	Stapler pin	Permanent maxillary incisor	Retrieval + root canal treatment
3.	Holla et al, 2010[3]	1. Aluminum foil + stapler pin	Primary maxillary canine	Extraction of the tooth
		2. Sewing needle	Primary maxillary central incisor	Extraction of the tooth
4.	Nagaveni et al, 2012[4]	1. Stapler pin	Primary mandibular molar	Extraction of the tooth
		2. Glass bead	Permanent mandibular molar	Retrieval and root canal treatment
		3. Stapler pin	Primary maxillary molar	Retrieval and extraction of tooth
		4. Wooden stick	Maxillary central incisor	Retrieval and root canal treatment
		5. Stapler pin	Permanent mandibular molar	Retrieval and root canal treatment
5.	Katge et al, 2013[5]	Metal screw	Primary mandibular molar	Retrieval + pulpectomy + stainless steel crown
6.	Dhull et al, 2013[6]	Broken safety pin	Primary mandibular molars	Extraction of teeth

7.	Chand et al, 2013[7]	Stapler pin	Permanent maxillary incisor	Retrieval + root canal therapy
8.	Ramugade et al, 2014[8]	2 sewing needles	Permanent maxillary incisor	Retrieval + root canal therapy
9.	Mahesh et al, 2014[9]	1. Stapler pin	Primary maxillary incisor	Extraction of tooth
		2. Broken metallic pin	Permanent maxillary incisor	Retrieval of pin + root canal treatment
10.	Sharma et al, 2015[10]	Stapler pin	Permanent maxillary incisor	Retrieval of pin + Biodentine apical matric placement + root canal treatment
11.	Kanumuri et al, 2016[11]	Seven metal wires + stapler pin	Primary mandibular molar	Extraction of the tooth
12.	Mahesh et al, 2012[12]	1. Corroded Metal wire	Primary maxillary canine	Extraction of the tooth
		2. Stapler pin	Primary maxillary incisor	Extraction of the tooth
13.	Moda et al, 2018[13]	Wooden stick	Permanent maxillary incisor	Retrieval + Root canal treatment
14.	Lakhani et al, 2019[14]	1. Plastic bead	Primary lower incisor	Retrieval
		2. Metal ball	Primary mandibular molar	Extraction of tooth
15.	Papageorgiou et al, 202[15]	Yellowish, ring like hard mass	Primary mandibular incisor	Extraction of the tooth

Table 1: Literature search of different foreign objects lodgement in the tooth or root canal of tooth in children

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Literature search shows foreign body retention is exclusively common in young children and the other objects reported in the literature were nut shells, a billiard cue tip, clothing buttons, emblems and false fingernails (Table 2).[1-15] Two case reports involving plastic screw caps as foreign bodies have also been noted in the literature. Plastic screw caps are entirely suited to retention in the mouth of a young child. The size and shape of the screw cap make this object appealing to young children. The concave shape of the screw cap makes this object more favourable for adherence to the palate in a similar way to that of a complete upper denture, for example. A suction effect can be easily formed around the periphery of the cap and the anatomical difference of the child's palate combined with feeding action, habitual position of the tongue, pacifiers and thumb-sucking all may contribute to the attachment and retention of this object to the oral mucosa.[17]

Sl. No.	Author & year	Type of foreign body	Location	Treatment rendered
1.	Soubhia et al, 2007[16]	Wooden piece	Hard palate	Surgical removal
2.	Hussain et al, 2008[17]	Plastic screw cover	Hard palate	Removal under general anesthesia
3.	Passi and Sharma, 2012[18]	1. Sewing needle	Upper right vestibule	Removal under local anesthesia
		2. Tip of metallic compass	Primary mandibular molar	Extraction of tooth
		3. Stapler pin	Permanent maxillary incisor	Retrieval + Root canal treatment
		4. Copper strip	Maxillary vestibular area	Removal under local anesthesia
4.	Khalaf et al, 2019[19]	Plastic screw cap	Hard palate	Removal under general anesthesia
5.	Present case	Long metallic artificial neck chain/jewellary.	Uvula (soft palate)	Retrieved using needle holder

Table 2: Literature search of different foreign objects retention or impaction in the oral cavity

The most important aspect pertaining to habit of chewing or keeping of foreign bodies intraoral is the risk of dislodgement and subsequent aspiration or ingestion. Pubmed search shows reports of ingestion and aspiration of different foreign bodies in young children. The possible complications of aspiration include acute respiratory distress, chronic and irreversible lung injury and even death. Therefore, careful observation, monitoring and counselling of the children as well as parents is very essential to avoid such consequences. The foreign bodies impacted in the tooth or root canal are usually diagnosed on routine radiographic examination. Various radiographic techniques are usually carried out to rule out or to localize the radio opaque foreign objects. These include Parallax views, Vertex occlusal view, Triangulation techniques, Stereo Radiography and Tomography. When a foreign body is impacted in the oral soft tissues orthopantomograph, CT and MRI imaging techniques are adviced. In the case reported here, radiographic examination was not required as the foreign body was huge and visible.[1-10]

CONCLUSION

In the present case the foreign objects lodgement huge metallic chain was removed successfully and the soft tissue healing was found to be satisfactory and uneventful.

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CONFLICTS OF INTEREST

There are no conflicts of interest

REFERENCES

1. Prabhakar AR, Basappa N, Raju OS. Foreign body in a mandibular permanent molar-a case report. J Indian Soc Pedod Prev Dent. 1998 Dec;16(4):120-1.

2. Kalyan SR, Sajjan G. Endodontic management of a foreign body. Contemp Clin Dent. 2010 Jul;1(3):180-2. Int J Clin Pediatr Dent. 2019 Mar-Apr; 12(2): 145–149.

3. Holla G, Baliga S, Yeluri R, Munshi AR. Unusual objects in the root canal of deciduous teeth: A report of two cases. Contemp Clin Dent. 2010 Oct-Dec; 1(4): 246–248.

4. Nagaveni NB, Umashankara KV. Unusual habit ending as a foreign body lodgment: A report of case series. J Cranio Max Dis 2012;1: 119-125.

5. Katge R, Mithiborwala S, Pammi T. Incidental Radiographic Discovery of a Screw in a Primary Molar: An Unusual Case Report in a 6 Year Old Child. Case Rep Dent. 2013; 2013: 296425. Published online 2013 Jun 26.

6. Dhull KS, Acharya S, Ray P, Dhull RS. Foreign body in root canals of two adjacent deciduous molars. A case report. Int J Clin Pediatr Dent. 2013; 6(1): 38-39.

7. Chand K, Joseph S, Varughese JM, Nair MG, Prasanth SJ. Endodontic management of an unusual foreign body in a maxillary central incisor. Conserv Dent. 2013 Sep;16(5):474-6.

8. Ramugade MM, Sapkale KD, Metkari SS. Patient induced unusual metallic obturation of the root canal of permanent maxillary central incisor with an immature apex – a rare case report. Singapore Dent J 2014; Dec; 35: 77-82.

9. Mahesh R, Waseem H, Siva kumar M. Unusual Behavior in Children- Foreign Object in Tooth: A Report of Two Cases. Ethiop J Health Sci. 2014 Oct; 24(4): 369–373.

10. Sharma V, Tanwar R, Gupta V, Mehta P. Impacted stapler pin in fractured maxillary central incisor with open apex: Advanced endodontic management using biodentine as innovative apical matrix. Indian J Dent Res. 2015 Nov-Dec;26(6):637-40.

11. Kanumuri PK, Gantha SN, Animireddy D, Chinta M. Unusual foreign body in primary tooth. BMJ Case Rep. 2016 Jul 5;2016:bcr2016216326.

12. Mahesh C, Animireddy D, Mettu S, Kulkarni M. An Unexpected Encounter with Foreign Body in the Primary Teeth and Its Management. Int J Appl Basic Med Res. 2018 Jul-Sep; 8(3): 181–183.

13. Moda A, Singla R, Agrawal PM. Foreign Body causing Displacement of Immature Fractured Apical Root Fragment: An Unusual Case Report. Int J Clin Pediatr Dent. 2018 May-Jun;11(3):247-249.

14. Lakhani B, Garg S, Saraf BG, Tomer E, Singh N, Sheoran N. Self-insertion of foreign objects in teeth. Int J Clin Pediatr Dent. 2019 Mar-Apr; 12(2): 145–149.

15. Papageorgiou, N, Pettas E, Georgaki M, Nikolaos G, Nikitakis. Ring-Like Mass" Surrounding the Cervix of a Primary Incisor. Report of a Challenging Case. J Oral Maxillofac Res. 2021 Oct-Dec; 12(4): e5.

16. Soubhia AMP, Ribeiro AACP, Martins LD, Silva ARS, Lopes MA. Unusual wooden foreign body in the palate. Br Dent J. 2007 Nov 24;203(10):573-4.

17. Hussain K, Brown AJ, Chavda D. Case report: foreign body in palate of an infant. Br Dent J. 2008; 12: 205(1): 23-5.

18. Passi S, Sharma N. Unusual foreign bodies in the orofacial region. Case Rep Dent. 2012;2012:191873.

19. Khalaf M, Smaily H, Rassi S.Pediatric hard palate foreign bodies: Case report and Systematic review of the literature. . Int J Pediatr Otorhinolaryngol. 2019 Dec;127:109654

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