

## Case Report

# A Clinical Case Report of a 6-Year old on Understanding & Addressing Foreign Bodies in Primary Dentition

Nishma Niharika<sup>1</sup>, Neeraj Kant Panwar<sup>2</sup>, Abhay Agarwal<sup>3</sup>, Asib Ahmad<sup>4</sup>, Tanya Agarwal Paruthi<sup>5</sup>, Balaji S<sup>6</sup>

Post Graduate 3rd Year<sup>1</sup>  
Dept. of Pedodontics & Preventive Dentistry  
Kalka Dental College & Hospital  
Meerut, UP

Professor<sup>2</sup>  
Dept. of Pedodontics & Preventive Dentistry  
Kalka Dental College & Hospital  
Meerut, UP

Professor & HOD<sup>3</sup>  
Dept. of Pedodontics & Preventive Dentistry  
Kalka Dental College & Hospital  
Meerut, UP

Reader<sup>4</sup>  
Dept. of Pedodontics & Preventive Dentistry  
Kalka Dental College & Hospital  
Meerut, UP

Assitant Professor<sup>5</sup>  
Dept. of Pedodontics & Preventive Dentistry  
Kalka Dental College & Hospital  
Meerut, UP

Post Graduate 3rd Year<sup>6</sup>  
Dept. of Pedodontics & Preventive Dentistry  
Kalka Dental College & Hospital  
Meerut, UP

### Introduction

Fortuitous placement of objects into the mouth and nibbling while playing is a usual phenomenon in infants and toddlers, but it is still noticed when the child complains of pain or discomfort or upon routine investigation.

Children inadvertently swallow foreign objects, and this peculiar behaviour can occasionally result in the foreign object becoming lodged in the pulp chamber or root canal of a tooth that has previously been exposed because of trauma, dental caries, or unfinished root canal therapy.<sup>[1,2]</sup>

The Metals that are ingested may react with bodily fluids and acids to produce hazardous substances. Tiny objects could potentially be inhaled, which could restrict the airway and cause numerous other related problems<sup>[4]</sup> Tiny objects could potentially be inhaled, which could restrict the airway and cause numerous other related problems. Detailed case history and clinical and radiographic examination are necessary to detect the exact etiology, size, location, and type of foreign object<sup>[2]</sup>

This finding is frequently reported to be noticed between the ages of three- and six-year old children which are more likely to exhibit this phenomenon, as they begin to put in new, interesting objects in their mouths to learn more about them. Impaction of the foreign object in the soft or hard tissues of the mouth can occasionally have major effects, even though this is thought to be a normal aspect of early childhood development<sup>[1]</sup>

However reports of foreign objects found in permanent teeth pulp chambers and root canals have been recorded, it is uncommon for foreign objects to be found in deciduous teeth. Various case report in literature state about foreign body in permanent teeth and their management<sup>[3]</sup> In this case report, details of a six-year-old child, where the successful retrieval and management of a foreign object from a deciduous tooth have been reported.

### Case Report

A 6-year-old girl reported to the Department of Pedodontics and Preventive Dentistry with a chief complaint of decayed tooth in upper front tooth region for past 1 month. The patient experienced discomfort on eating because of decayed tooth present in the upper front tooth region. There was no associated swelling with respect to tooth involved. It was patient's first dental visit, patient's medical history was thoroughly reviewed, revealing no significant systemic conditions or medications that could impact dental treatment.

On intraoral examination it was observed that the teeth involved were grossly carious with Grade III & Grade II mobility w.r.t 51, 61 respectively, cervical region of the teeth was involved which was significant of class V caries w.r.t 53 63 73 83 (Figure 1).

Access This Article Online

Website:  
[www.healtalk.in](http://www.healtalk.in)

Quick Response Code:



DOI: <https://doi.org/10.5281/zenodo.11000876>

**How to cite this article:** Niharika N et al.: A Clinical Case Report of a 6-Year old on Understanding & Addressing Foreign Bodies in Primary Dentition. *HTAJ OCD.2024; March-April(4): 37-39.*

In attempt to view the foreign body, clearing off the debris from the exposed pulpal chamber of tooth 61 was done where a glossy grey metal like material was appreciated.



Figure 1: Preoperative front view

Intraoral radiographic examination was done to rule out the status of the tooth associated with the foreign object. Intraoral periapical (IOPA) radiograph showed a radiopaque twisted wire like unusual object lodged in the pulp chamber of 61 (Figure 2). Based on clinical and radiographic evaluation, extraction of tooth number 51 61 was planned as the treatment of choice.



Figure2: IOPA showing a radiopaque twisted wire like foreign object w.r.t 61

In the present case report parents were aware that the child has a habit of putting staple pins into the mouth, but they had never imagined the insertion of pin inside the tooth. Child did not mention during the history taking that she had a habit of lodging foreign object inside the tooth. The foreign objects were traced using routine intraoral periapical radiograph, which clearly revealed metallic object after which she admitted her habit of consuming foreign object in oral cavity especially which are readily available and easily inserted such as staple pin, needle, pins, coins, marbles, screws, toothpicks, pencil led, small toy.

As the tooth was grossly decayed, in the same visit, it was planned that the extraction of 51, 61 should be implemented. Under local anesthesia (lignox 2% lignocaine with epinephrine 1:80,000), extraction was done, and systemic antibiotics and analgesics (amoxicillin 250 mg and meftal P 125 mg) were advised for 5 days. Post-extraction instructions were given, and patient advised for follow up visits. Similar studies were reported by Holla G et al. (2010)<sup>[3]</sup> Mahesh R et al (2014)<sup>[5]</sup>, where extraction of the primary tooth was planned after a radiographic diagnosis of a foreign object.

In the present case report on the removal of foreign objects from the extracted tooth, we found staple pins and a piece of non-metallic object resembling fish bone that were removed by using a shepherd's hook explorer.



Figure3:(a) Picture showing extracted teeth 51 and 61 (b) Picture showing twisted staple pin and non-metallic object like (fish bone)

### Discussion:

As children often tend to have the habit of inserting foreign objects in the oral cavity, there are more chances of finding foreign objects in their teeth. Sometimes, children do not reveal to their parents due to fear.

Development of masochistic habits has been commonly reported in such cases. In such cases, the presence of foreign body is detected on routine radiographs as it was asymptomatic. Objects embedded within the periodontium are a potential source of infection resulting in bleeding, edema, and abscess formation

Foreign bodies implanted in deciduous dentition can perforate the floor of the pulp chamber and possibly interfere with developing permanent tooth germ resulting in odontoma, impaction, or dilaceration<sup>[4]</sup> Therefore, a thorough history and a detailed clinical and radiographic examination are the key to a successful management of such cases.

Different author reported similar studies, in one such case reported by Mahesh et al. (2014) where in one of his case staple pins was embedded in the root canal space of primary maxillary central incisor, considering the poor prognosis of teeth it was decided to extract the central incisor. Another similar case reported by him where a broken metal pin was found in the fractured upper left central incisor.<sup>[5]</sup>

In the year 2015 Indushekar et al reported in a study about a metallic screw of approximately 5mm in length which had perforated the furcation of 74 with its head resting at the level of the floor of pulp chamber, was extracted under local anesthesia<sup>[6]</sup>

Kanumuri et al in the year 2016 contributed to the discussion by reporting case where seven metal wires and one staple were observed extending from pulp chamber of primary mandibular left second molar (75) extending to its successor (35 ISO system) in the furcation area thus leading to extraction w.r.t 75.<sup>[7]</sup>

Similar such case was reported by, Mahesh et al (2018). Case1: One metal wire measuring 7mm approximately and 3-4 non-metallic objects measuring approximately 5mm extending from coronal aspect of the tooth (53) to the entire length of root canal and extended to its underlying permanent successor (13), extraction of the affected tooth was planned as underlying permanent canine was ready for eruption. Case 2: Radiograph revealed staple pin which measured about 5.5mm w.r.t primary lateral incisor (62) 4-5mm below the apex of tooth with two-third resorbed, based on the clinical and radiographic finding extraction of the tooth was planned w.r.t 62<sup>[2]</sup>

In such cases, timely diagnosis can prevent complications such as ingestion and damage to the permanent teeth.

Collectively, these documented cases highlight the diverse range of foreign objects encountered within root canals, emphasizing the importance of patient education, careful examination, and communication to minimize the risks associated with such incidents in dental practice.

The choice of treatment usually guided by the pulpal and periapical status of the tooth in question, the exfoliation timing, and level of difficulty in retrieving the object and on patient factors such as the child's age, tooth development and level of cooperation<sup>[1,2]</sup> In the present case, retrieval of the foreign body was planned as per radiographic and clinical finding, it was diagnosed as unusual foreign body in the primary tooth with open pulp chamber.

### Conclusion:

Retrieval of foreign bodies from the teeth in children is a demanding aspect of pediatric dentistry. Community campaigns to educate parents on the unusual sequelae of dental caries trauma should be carried out. Parents need to be warned to keep objects away from children to avoid such accidents<sup>[4]</sup> It is the responsibility of the clinician to detect such instances and provide immediate treatment to the best of their knowledge and ability<sup>[1]</sup>

### References:

1. Goswami P, Gandhi K, Kapoor, Malhotra R, Jangra B. Mishaps to baby teeth: Report of a case and review of literature Indian J Case Reports. 2020;6(4):176-179.
2. Mahesh C, Animireddy D, Mettu S, Kulkarni M. An unexpected encounter with foreign body in the primary teeth and its management. Int J App Basic Med Res. 2018; 8:181-183.
3. Holla G, Baliga S, Yeluri R, Munshi AK. Unusual objects in the root canal of deciduous teeth: a report of two cases. Contemporary Clinical Dent. 2010;1(4):246-8.
4. Madhuri V. An Unusual Foreign Object Encircling Primary Teeth: A Case Report. J South Asian Assoc Pediatrics Dent. 2021;4(2):128-130.
5. 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;24(4):369-73.
6. Indushekar K Rssss, Makkar A, Saraf B G, Sheoran N, Sardana D. Foreign body in primary tooth. JIDA. 2015;9(3):35-38
7. Kanumuri PK, Gantha SN, Animireddy D, Chinta M. Unusual foreign body in primary tooth. BMJ Case Rep. 2016;doi: 10.1136/bcr-2016-216326