



# Foreign Body Management in The Maxillary Central Incisor of a Teenage Girl: A Case Report

RASHMI PUNDIR<sup>1</sup>, CHETNA JAISWAL<sup>\*2</sup>

A  
B  
S  
T  
R  
A  
C  
T

Finding a foreign body lodged in the tooth structure of a tooth is quite uncommon occurrence and requires skill to remove the same. Its extraction requires a detailed case history followed by clinical, and radiographic examination to ascertain the size, position, and nature of the embedded objects so that the difficulty involved in its retrieval can be assessed. At times due to fear, a child hesitates from informing the parent regarding the lodgement and may only do so when one experiences pain. There is a great possibility that the foreign objects may act as a potential source of infection and lead to undesirable consequences. This case report will discuss the lodgement, retrieval and management of foreign object (tip of lead pencil) in the maxillary left central incisor of female teenager aged 16 years.

**KEYWORDS:** Foreign Body, Tooth Fracture, Tooth Mobility

## INTRODUCTION

The discovery of a foreign object inside a child's tooth is relatively uncommon as well a troublesome incident in the field of endodontic therapy.<sup>1</sup> Such findings are said to be accidental in nature and can be attributed to the frequent habit of placing various objects in their mouth. There is a greater chance of a foreign body embedment in the case of an open pulp chamber due to a carious exposure of traumatic injury.<sup>2</sup>

These objects can remain unnoticed until these children present to the dentist with a complaint of pain, infection with or without associated swelling. Its diagnosis can be done clinically if it is visible with the help of diagnostic tools, or with the help of dental x-rays.<sup>3</sup>

Various foreign objects in the form of paper clips, nails, sewing needles, incense sticks, metal screws, beads, pencil leads and stapler pins etc. embedded in the tooth of the child have been reported.<sup>4</sup> At times, these objects tend to fracture inside the tooth during exploration by the child or parents. And can lead to further complications.<sup>2</sup>

Its retrieval possesses a clinical challenge for the dentist, and several techniques can be used for its retrieval.<sup>2</sup> With proper care, these treated teeth can last for a lifetime. The present care report depicts a 16 year of female teenager with an embedded pencil lead in her maxillary left central incisor.

## CASE REPORT

A 16 year old teenage girl reported to our clinic with the chief complaint of pain and black spot in her upper front right tooth since one week. Clinical examination revealed an Ellis class III fracture having grade I mobility in maxillary left central incisor [Figure 1 (a)]. The palatal aspect revealed a blackish spot inside the pulp chamber [Figure 1 (b)].

Her mother revealed that her tooth suffered trauma one year ago and a dental practitioner was consulted who initiated a Root Canal Treatment (RCT) in the affected tooth. However, as the pain subsided, the girl and her parents did not go for follow up treatment until the present consultation.

The affected tooth was not completely symptomatic and when it used to pain, the girl used to insert a some foreign object in her tooth to ease the pain and could not recollect what probably could have stuck in her open pulp chamber. Upon clinical examination, it did look like the tip of the lead pencil.

Radiographic examination revealed a large periapical lesion with an open apex and the appearance of a foreign body lodgement in the root canal system with a radio-opaque foreign object (lead pencil) (Figure 2). It was decided to retrieve the lead pencil by nonsurgical technique, and thereafter, complete the routine endodontic treatment with the mixture of calcium



© Rashmi Pundir et al. This is an open access article distributed under the terms of the Creative Commons Attribution License CC-BY-NC 4.0, which permits unrestricted use, distribution and reproduction in any medium, provided the use is not commercial and the original author and source are



**Figure 1 (a):** Pre-operative View  
**Figure 1 (b):** Palatal view showing the embedded foreign object

hydroxide and propylene glycol to reduce the size of lesion in follow up (Figure 3).



**Figure 2.** Radiographic examination of the affected tooth revealed a large periapical lesion with an open apex and the appearance of a foreign body ( lead pencil).

## DISCUSSION

The presence of a foreign objects in the pulp chamber of a cavitated and/or traumatized tooth can be a result of the patient trying to relieve the underlying discomfort already present in the tooth as seen in the present case.<sup>5</sup> Such an occurrence could also be seen due to the a lack of awareness among the child and the parents/caregivers. Another fact could be due to the fear of the dentist or paucity of time and the child looks for a technique to “quickly relieve” one’s pain.

To detect the lodgement of such foreign objects, clinical examination followed by a radiographic analysis to

determine the extent and size of the foreign object is of diagnostic significance, and even more so when the foreign body is radiopaque.<sup>6</sup> The radiographic methods to localize a radiopaque foreign object are parallax views, vertex occlusal views, triangulation techniques, stereo radiography and tomography.<sup>7</sup>



**Figure 3.** Post-Operative Restoration

The appearance and/or ability to detect various materials on radiographs depends on the ability of the operator to visualise the foreign body depending on their inherent radiodensity and proximity to the surrounding structures.<sup>8</sup> Metallic objects except those made from aluminium radiopaque and are easily visible on the radiograph.

Removal of the foreign object is a complex procedure. As per McCulloch, access to the foreign object is improved by removal of small amount of tooth structure.<sup>9</sup> Also, if the foreign object is snugly bound in the canal, the object may have to be loosened first; it should then be removed with minimal damage to internal tooth structure to prevent perforation of the root.<sup>10</sup>

The various complications that can arise if these foreign objects are not removed as they as serve as a foci of infection if not extracted at the right time. Authors have

reported actinomycosis following placement of piece of jewellery chain into a maxillary central incisor, as well

as chronic maxillary sinusitis of dental origin has been reported due to pushing of foreign bodies into maxillary sinus through the root canals.<sup>12</sup>

## CONCLUSION

The lodgement of a foreign object in the tooth structure of a tooth is quite a rare occurrence but can escalate if proper attention is not paid to the affected tooth. Children and parents must be educated regarding the same during their dental visits to the paediatric dentist and report such an occurrence as soon as possible so that proper dental care can be rendered and any complication can be avoided.

## REFERENCES

1. Kalyan SR, Sajjan G. Endodontic management of a foreign body. *Contemp Clin Dent*. 2010;1(3): 180–2. <https://doi.org/10.4103/0976-237X.72788>
2. Ashqar NM, Ali FM. Unusual foreign object in a tooth: A case report and review of literature. *Clinics and Practice* 2019;114. <https://doi.org/10.4081/cp.2019.114>
3. Aduri R, Reddy R E, Kiran K. Foreign objects in teeth: Retrieval and management. *J Indian Soc Pedod Prev Dent*. 2009;27:179-83.
4. Alrahabi M, Gabban H. Management of foreign object in the root canal of central incisor tooth. *Saudi Endod J* 2014;4:154-7.
5. Tay ABG. Long-standing intranasal foreign body: an incidental finding on dental radiograph: a case report and literature review. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod*. 1990;4:546-9.
6. Passi S, Sharma N. Unusual Foreign Bodies in the Orofacial Region. *Case Reports in Dentistry* 2012;2012:191873. <https://doi.org/10.1155/2012/191873>
7. Weine FS. *Endodontic Therapy*, 6<sup>th</sup> edition, 2004.
8. Prabhakar AR, Basappa N, Raju OS. Foreign body in a mandibular permanent molar—a case report. *Journal of the Indian Society of Pedodontics and Preventive Dentistry* 1998;16(4):120–1.
9. McCulloch AJ. The removal of restorations and foreign objects from root canals. *Quintessence Int* 1993;24:245-9.
10. Walvekar SV, Al-Duwari Y, Al-Kandri AM, Al-Quoud OA. Unusual foreign objects in the root canal. *J Endod* 1995;21:526-7.
11. Goldstein BH, Scuibba JJ, Laskin DM. Actinomycosis of the maxilla: A review of literature and a report case. *J Oral Surg* 1972;30:362-6.
12. Costa F, Robiomy M, Toro C, Sembronio S, Politi M. Endoscopically assisted procedure for the removal of a foreign body from the maxillary sinus and contemporary endodontic surgical treatment of the tooth. *Head Face Med* 2006;8:37.

**Source of support:** Nil, **Conflict of interest:** None declared

### Cite this article as:

Pundir R, Jaiswal C. Foreign Body Management in The Maxillary Central Incisor of a Teenage Girl: A Case Report. *Int Healthc Res J*. 2020;4(2):31-33. <https://doi.org/10.26440/IHRJ/0402.05030>

### AUTHOR AFFILIATIONS: (\*Corresponding Author)

1. MDS (Conservative Dentistry and Endodontics), Consultant Dental Surgeon, Ratnagiri, India
2. BDS, Private Practitioner and Consultant, Neemrana, Rajasthan, India

Contact corresponding author at: [jaiswalc.1988\[at\]yahoo\[dot\]com](mailto:jaiswalc.1988[at]yahoo[dot]com)