

Case Report

Oral & Maxillofacial Surgery

# Self-Inflicted Foreign Body Impaction in the Mucobuccal Fold of Maxillary Posterior Region in the Oral Cavity: A Case Report

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## Abstract

Foreign bodies may be embedded in the oral cavity either by traumatic injury or iatrogenically. Cases in which a foreign body embedded in the oral cavity due to self-inflictions are uncommon and rarely reported. The discovery of foreign bodies in the teeth is often accidental and is a special situation. Detailed case history, clinical and radiographic examinations are essential to come to a conclusion about the size, nature, location of the foreign body and the difficulty concerned in its retrieval. Such an object may act as a possible source of infection and lead to complications. This case report presented a accidental impaction of self-inflicted foreign body in the form of wire in the maxillary left posterior region.

**Keywords:** Foreign body, oral cavity, self-inflicted injuries.

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## INTRODUCTION

Self-inflicted injuries are not infrequent and vary in severity from simple nail biting to more intense forms of mutilation, with oral trauma occasionally being the only presenting sign [1].

Self-inflicted injuries often present a diagnostic problem for the dental practitioner instead of their typical clinical features. The method of its development and their treatment are still not clearly understood. Foreign objects can be ingested, inserted or deposited into oral cavity by a traumatic or iatrogenic injury [2].

Hereby reported a case of foreign body accidentally lodged in the maxillary left posterior region mucobuccal fold.

## CASE REPORT

A 22 year old male patient reported to a dental clinic with pain in the maxillary left posterior region since 2 days. On taking detailed history, revealed slippage of wire (foreign body) during tooth picking and wire getting dislodged in maxillary left posterior region just below the mucobuccal junction. That region

was symptomatic. On radiographic examination, OPG had shown a wire fragment in the maxillary left posterior area in the middle third of root portion of permanent maxillary left second premolar to second molar (Figure 1). The finding was also confirmed on lateral cephalogram (Figure 2). Clinically nothing was seen in the concerned area (Figure 3).

The patient was successfully treated by exploratory surgery (Figure 4) in mucobuccal fold under local anesthesia and the wire was retrieved (Figure 5). The wound was cleaned properly and sutured (Figure 6).



**Fig-1: OPG showing impacted foreign object (wire) at left maxillary posterior region near permanent maxillary second premolar to second molar**



**Fig-2: Lateral cephalogram showing the location of the wire**



**Fig-3: Intraoral picture at the site**



**Fig-4: Removal of the wire from the left maxillary posterior region**



**Fig-5: Wire fragment after removal from the oral cavity**



**Fig-6: The site was sutured properly**

## DISCUSSION

Self-inflicted injuries in the oral cavity can be intentional or accidental or can also result from an unusual habit. Such injuries typically result from a foreign objects habitually causing injury to the gingival tissues or teeth [2].

Foreign bodies cause serious harm due to chronic irritation and infection, in addition to the risk of aspiration by small children [3].

Self-oral examination, simulation of peers or older siblings performing a related behaviour, play while eating, and attempts to alleviate chronic irritation together with fear of dentistry are some of the factors that may prompt children to place foreign objects in the mouth [4].

The most common site for foreign body impaction is the nasal cavity. Other common sites in the oral cavity are base of the tongue, teeth (root canal), hard palate, tonsils, piriform fossae, hypopharynx, cervical esophagus, and nasopharynx [4].

Foreign body impactions clinically misdiagnosed as palatal neoplasms and salivary gland tumors in the oral cavity are reported in the literature [4].

Various types of foreign bodies impacted in the soft tissues of the oral cavity have been reported in the literature, such as bullet fragments, fractured teeth, impression materials, fish bones, needles, wooden toothpick, a pencil tip, plastic objects, toothbrush bristles, and crayons [5].

Also numerous types of foreign bodies were reported to be lodged in the root canals and the pulp chamber like pencil leads, darning needles, metal screws, beads, and stapler pins [1].

Grossman reported recovery of a tooth pick, tomato seed, indelible ink pencil tips, brads, adsorbent points from the pulp chamber of tooth which was left open for drainage [6]. Toida *et al.* has reported an embedded plastic chopstick in an unerupted supernumerary tooth in the premaxillary region of a 12-

year-old Japanese boy [7]. Zillich and Picken and Turner reported cases with hat pins and dressmaker pins lodged in the root canals of maxillary and mandibular incisors undergoing root canal treatment [8, 9]. Gelfman reported a case of a 3-year old child who had inserted two straws into the root canal of a primary central incisor, which later undergone extraction [10]. Lamster and Barenie reported insertion of a conical metallic object in the distal root of the primary left first molar [11].

Objects lodged in root canal can be categorized into metallic and non-metallic objects. Metallic objects are readily acknowledged from routine radiographs as they are radio-opaque [12].

A radiograph is of diagnostic importance particularly when the foreign body is radioopaque. McAuliffe summarized various radiographic methods to be followed to localize a radioopaque foreign object, like Parallax views, Vertex occlusal view, Triangulation techniques, Stereo Radiography and Tomography [13].

Specialized imaging techniques like cone beam computed tomography (CBCT) can also play an important role in the localization [14].

Foreign objects inside the tooth can act as a source of infection and result in pain, bleeding, and swelling [15]. Foreign bodies can also cause complications like abscess formation, septicemia, or lead to severe haemorrhage; and rarely can they also undergo distant embolization [2].

Difficulty in removal of foreign objects depends on the location of the fragment and its association with the nearby structures. When foreign objects retrieval is from tooth root canal, it depends on the relationship with the curvatures in the root canals. When the object is placed coronally it is comparatively easy in removal. If the objects are sharp or pointed, they may cause further danger during their removal [2, 15].

## CONCLUSION

The above case report discusses the impacted foreign object (wire) in the mucobuccal fold. There is a definite need for a proper classification of foreign bodies in and around the teeth and a treatment algorithm to be followed in such clinical situation.

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