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## Three Unusual Cases of Foreign Bodies in The Maxillofacial Region

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### Summary:

Three case reports of rare type of foreign bodies in the oral cavity are presented. One is a catapult which a child was playing with and had a fall with the metal piece. The second is a fish harpoon which stuck in the patient's lower jaw. The third case was a metallic bar of a car side mirror which was dislodged during road traffic accident and got inserted into the patient's face. The localisation and management of the three foreign bodies are discussed here.

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### Introduction:

Trauma to the facial area produces a variety of injuries. These may be simple and limited to the soft tissues or they may be complex and involve the underlying skeletal structures. Of all the injuries, none perhaps, is of more concern to the patient than those involving the facial region (Lonnen 1985).

In the past, severe wounds were encountered as a result of gunshot fire and implements of war. With the advent of the modern automobile however, a devastating instrument has been placed in the hands of the public, and transportation accidents are occurring with increasing frequency. The use of power tools, such as chain-saws that has become more popular in recent years, presents other means of inflicting severe soft tissue injuries on the facial areas (Schow 1971). However, a small part is of course contributed by physical violence and play.

All these traumas often produce lacerations of the maxillofacial region. On certain occasions, the associated foreign body may be found embedded in the soft tissues elsewhere (Khanna et al. 1987). The incidence of foreign bodies in the stomodeum is not an uncommon one.

Perhaps, commonly encountered in young children especially during the early milestones of development, the incidence becomes high. Many of them remain unnoticed and get embedded in the soft tissues through the cut and are accidentally diagnosed during radiographic evaluation taken for some other purpose (McCaughey 1988).

Here, three cases of foreign bodies quite unusual in nature, seen by the maxillofacial unit, Faculty of Dentistry, Benghazi are described. The nature of the occurrence seems to be quite variable and natural in all the instances. All the cases were admitted and treated at Al-Jalla hospital, Benghazi and the nature of the foreign bodies appears to be quite interesting.

### Case Reports:

#### Case No. 1 :

A 5-year-old Libyan male reported with a complaint of pain and swelling in the oral cavity. The general health was fair. A clear history revealed about a metal piece that the child was playing with on many occasions, a "catapult"; but unfortunately the child had a fall with the metal piece. A careful examination of the swelling revealed a shining object with one portion on lingual aspect of right lower deciduous second molar and another arm protruding through the cheek on the right side. The patient was submitted for routine investigations and radiographic evaluation. X-ray revealed a Y-shaped metallic piece embedded in the soft tissue (Fig. 1). The child was operated under general anaesthesia and an exploration of the foreign body was performed. With gentle dissection the foreign body was dislodged and wound margins were sutured with 3-0 silk after complete debridement of the area (Fig. 2). The post-operative recovery was uneventful.

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Fig. 2: Photograph of the catapult after removal from the patient under G.A.

**Case No.2:**

A stout young Libyan male 20 year old reported one evening with a fish harpoon stuck in the lower jaw. The history was very interesting; he stated that he had been reading a map on the beach and suddenly the fish harpoon struck him. Probably it might have been fired accidentally at him. A careful examination revealed the foreign body had stuck in the lower jaw without any

fracture of underlying skeleton of the "mandible" (Fig. 3).

Routine investigations were carried-out and the patient was operated on under local anaesthesia, and the foreign body was carefully removed by sectioning the teeth of the harpoon. The wound margins were closed and post-operative recovery was uneventful (Fig. 4).

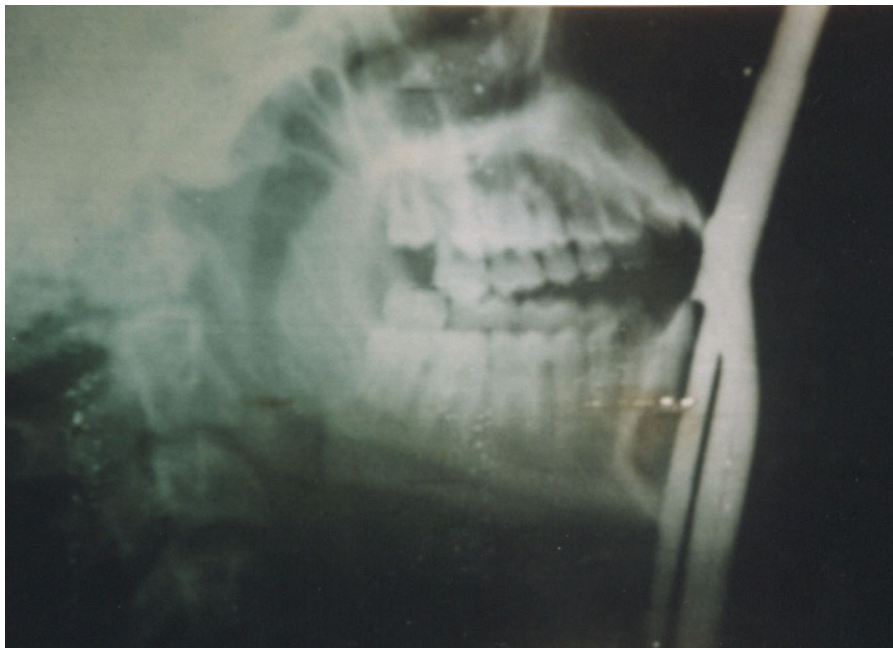


Fig. 3: lateral radiograph showing the location of fish harpoon.



Fig. 4: Appearance of the patient and fish harpoon before sectioning its teeth and removal under L.A.

**Case No. 3:**

A 30-year-old Libyan male was presented with a metallic object inserted deeply into the left side of his face; pain and bleeding into the nasopharynx were the chief complaint. The patient was conscious and oriented with no neurological deficit.

The cause of this instance was a road traffic accident. A car at great speed struck the side of the patient's car in the opposite direction and this led to the dislodgement of the metallic bar of the side mirror of the patient's car and its deep insertion into the left side of his face, probably due to its high velocity.

Radiographic evaluation was carried out (Fig. 5) and the patient was taken immediately to the operating theatre for removal of the foreign object.

On examination, the metallic piece was fixed and firmly attached to soft tissues and bone and couldn't be removed by hand. The entry of

the object was through the left cheek, into and underneath the upper buccal sulcus then into the left maxillary sinus through its lateral wall, traveling posteriorly and superiorly up to the posterior part of the nasal cavity. The metallic bar was 15 cm in length (Fig. 6); ten cm were inside the tissues and five cm were projecting outside.

Surgery was performed under general anaesthesia with oral endotracheal intubation. The metallic object was grasped with a T-handle surgical instrument, gently loosened and removed intact. The facial wound closed with sutures. There was post nasal bleeding into the throat which was arrested successfully using anterior nasal packing.

The postoperative recovery was smooth (Fig. 7) and the patient was discharged in good general condition.

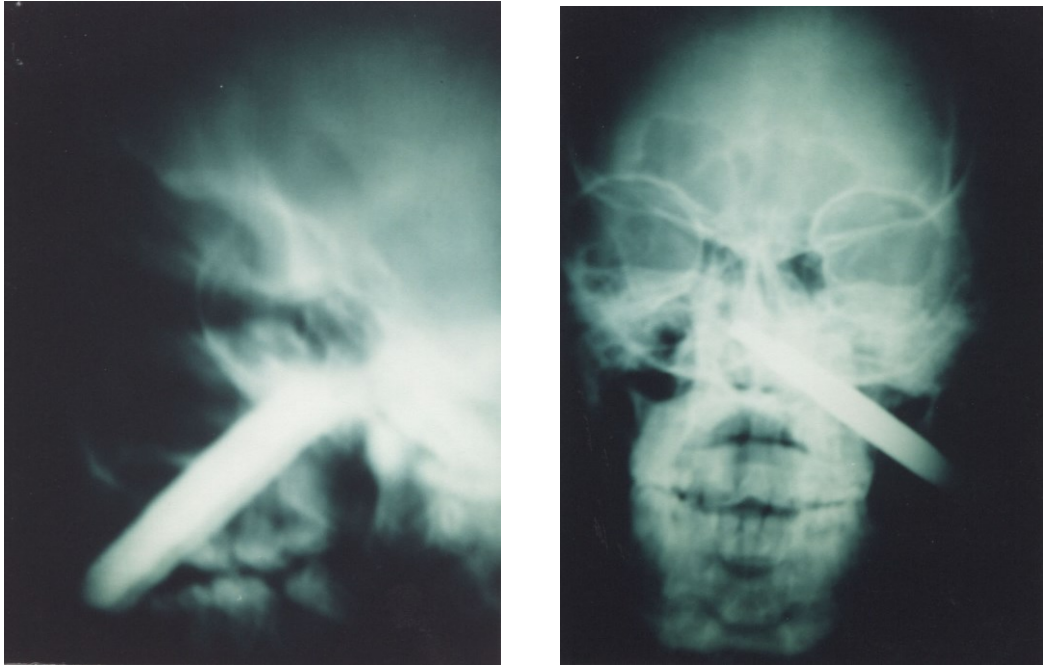


Fig. 5: Lateral (left) and anteroposterior (right) radiographs of metallic foreign body lodged in mid face (case 3)

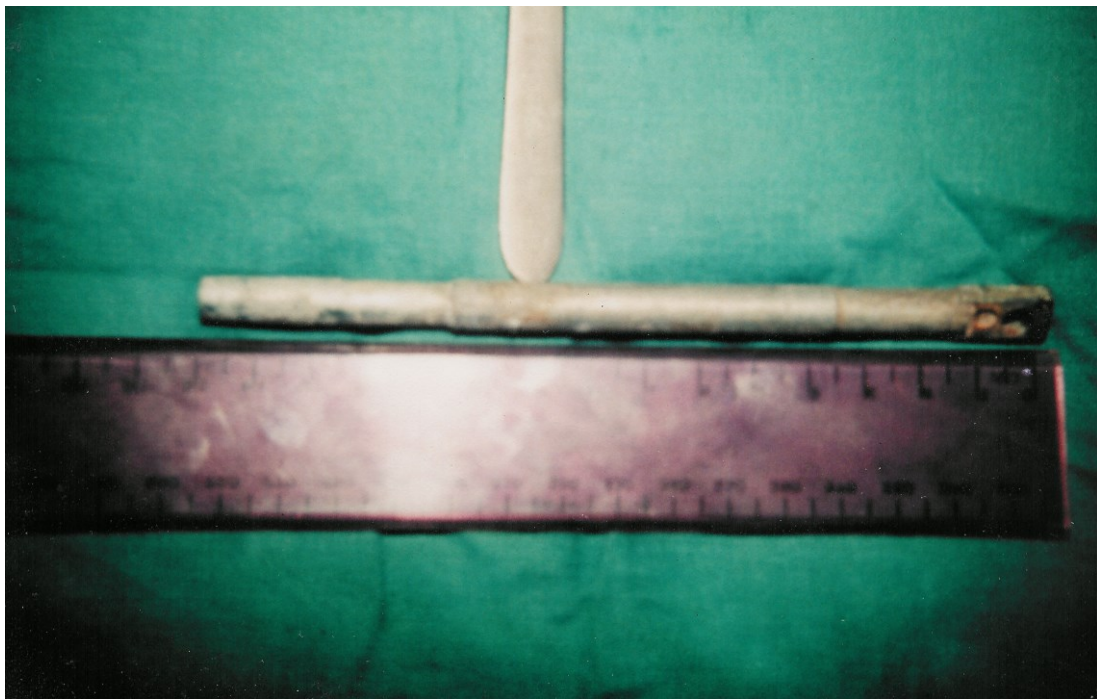


Fig. 6: Photograph of the metallic mirror handle after removal from the maxilla, the longer part was inserted inside the tissues.





Fig. 7: Photograph of patient's face showing the site of entry of the foreign body after its removal.

**Discussion:**

Some of the foreign bodies may be lodged in the soft tissues, paranasal sinuses or bony structures of the upper and lower jaws. Following some trauma such as road traffic accidents, almost any type of object can be implanted into the tissue. Some of the more common foreign bodies of interest to the oral surgeon are: tar, road dirt, pieces of glass, wood, dentures, impression materials, other plastic objects, grease, pencil and metallic objects (Cohen et al, 1986). Glass fragments may get entry in the soft tissues at the time of the accident. Almost all glass in common use is sufficiently radio-opaque to produce a shadow when displaced into the soft tissues. The degree of opacity varies of course with the composition.

Wood is radiolucent and if splints enter the tissues, it may be difficult to locate them on the radiographs. However, if the wood is painted, the paint usually shows up quite well. The patient's dentures may be shattered as a result of an accident and portions of the dentures may enter the soft tissues or into the maxillary sinus or throat (Sanghvi, 1982). Unfortunately acrylic denture material is radiolucent and if the objects are not palpable it may be difficult to distinguish their presence and locate them surgically. The older denture material such as vulcanite are, however, radio-opaque. A radiolucent denture impacted in the throat can be demonstrated as a space-occupying lesion following a barium meal swallow.

Shell fragments and bullets or pellets may be lodged in the hard or soft tissues for many years without causing symptoms. Multiple lead shots from a shot gun injury are extremely hard to find out and they are usually asymptomatic and left in site.

Patients engaged in special risk occupations or sports should be fitted with special dentures made up of radio-opaque acrylic.

Many items such as internal trim in cars and instrument knobs are made up of plastic. These again are often radiolucent or only slightly radio-opaque. Surprisingly, large objects can be accommodated in swollen tissues, in the paranasal sinuses and in regions of thick muscle.

An injury from a grease gun is similar to the wound produced by a jet injection device. The grease is forced widely into the tissue planes and is highly irritant.

Lacerations of the palate and cheek occur commonly in children when they fall with a toy, or a thick metal piece which often get embedded in the tissues and many of them are radio-opaque.

However, if fragments of lead and other objects remain in the wound, a troublesome and persistent granulomatous reaction results. Here three cases of unusual foreign bodies in oral and maxillofacial region have been described.

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