

Unusual Plastic-Metal Foreign Body in the Mandible

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• Abstract

A foreign body may present diagnostic difficulties. If the foreign body has been in existence for a long time, the diagnosis may be even more complex. This report shows an unusual foreign body that turned out to be the cap of a ball point pen.

• Key word : foreign body

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Introduction

Routine dental checkups sometimes reveal foreign articles that may or may not be accompanied by symptoms. Metallic objects such as metal acupuncture, clips, or other particles may be inserted into the oral mucosa or alveolar bone during unexpected accidents. With the proliferation of implant surgery, many general practitioners perform submerged implant surgery. Due to failure in initial stability or mal-directed drilling, drifting submerged

implants in unwanted locations may cause inflammation. Fractured dental instruments such as endodontic files or dental burs may become impacted in the alveolar bone during endodontic treatment or exodontic treatment. Normally, these items are easily identified on dental radiographs; surgery planning may be helpful if the type of foreign article is clarified. In this case report, we report an impacted foreign article in the mandible, which looked like a failed dental implant on the panoramic x-ray but actually turned out to be the metallic coil portion of a pen.

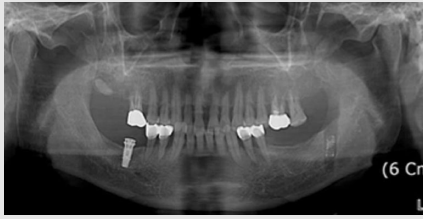


Fig.1 A panoramic radiography showing a coil-like radiopaque foreign body with a radiolucent hollow.

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Fig.3 A blue plastic foreign body embedded in the posterior mandible. Granulation tissue was noted around the foreign body

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Report of a Case

A generally healthy mid-50s patient was referred to the clinic. A panoramic radiography revealed a coil-like radiopaque foreign body (Fig. 1). The patient could not remember an instance when the foreign body could have been placed accidentally. The foreign body seemed to be the remnant of a failed dental implant, but the patient claimed he did not go through dental implant therapy. For further evaluation, a cone beam CT scan was taken, revealing a radiolucent hollow cylindrical defect with coil-like radiopacity (Fig. 2A). The foreign body had been thrust into the left posterior mandible, and the medial cortical margin of the mandibular canal was lost (Fig. 2B). There was no neurologic impairment, however. The mucoperiosteal flap was raised, and a thin layer of granulation tissue was found around the bluish foreign body (Fig. 3). The foreign body—which turned out to be the cap of a ball point pen—was carefully removed (Fig. 4). The wound healed uneventfully,

and the patient was transferred to the local clinic.

Discussion

The accidental displacement of foreign bodies into the maxillary sinus is not unusual¹, but foreign bodies are usually dental materials used for the patient. In general, foreign bodies may be introduced to the oral and maxillofacial area by trauma.^{2,3} In this case report, the most probable reason for such foreign body was tracked; we found that the patient underwent a third molar surgery about 20 years ago. The reason still remains unclear, but the foreign body may have been dropped into the extraction wound by chance. An unusual foreign body such as a pen cap may be found among pediatric patients⁴ but exceedingly rare in adults.

This brief case tells us that the lack of caution among dental personnel may leave an iatrogenic trace, which is absolutely unacceptable.

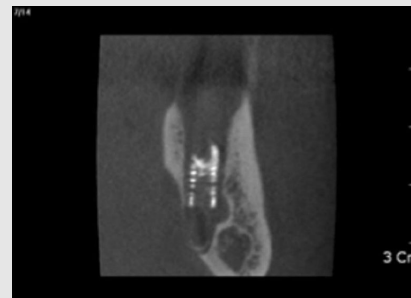
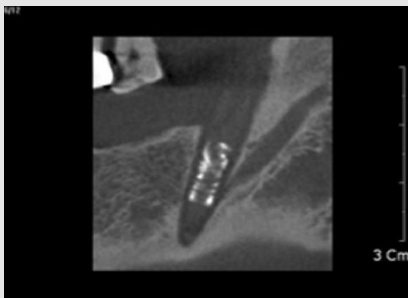


Fig. 2 Cone beam CT scans revealed a coil-like foreign body in the radiolucent cylindrical defect with definite margin (A). Loss of medial cortical margin of the mandibular canal was noted (B).

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Fig. 4 Removed foreign body (bisected). Coil spring which was presented in the radiographic exam was found in the foreign body.

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