Reminder of important clinical lesson

Incidentally detected nasal foreign body on routine dental radiography

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Summary

A nasal foreign body was discovered on routine radiographic examination of a 7-year-old girl following traumatic injury to permanent maxillary central incisors. The mother and the patient were unaware of the object's presence and the child had no nasal symptoms. The child was referred to an ear, nose and throat (ENT) surgeon to have the object assessed and removed. This was accomplished successfully without sequelae on an outpatient basis. This article highlights the role of a dentist in the proper detection and diagnosis, prompt referral for its management and reduction in complications related to foreign bodies.

BACKGROUND

Nasal foreign bodies are a commonly encountered problem in ear, nose and throat (ENT) acute practice but a relatively few such cases have been reported in dentistry. Hence, dental practitioners have limited experience in dealing with cases of foreign bodies in the nasal cavity. In addition, the examiner may have no indication by history that an object has been placed or lodged in nose and many of which are discovered during routine dental radiographic examinations.

CASE PRESENTATION

A 7-year-old girl reported with her mother immediately following traumatic injury to maxillary anterior teeth region due to fall from staircase. Her medical history was non-contributory. On general examination, the child appeared healthy, well developed, well nourished and of appropriate physical and mental growth for her age. No apparent abnormalities were noticed in head and neck region.

Intraoral examination revealed fracture of permanent maxillary right and left central incisors involving enamel and little dentin (figure 1).

INVESTIGATIONS

An intraoral periapical radiograph disclosed a radio-opaque structure apical to the developing permanent maxillary right central and lateral incisor, suggestive of a nasal foreign body apparently in the right nasal cavity (figure 2). For object localisation radiographic techniques such as tube shift technique/same lingual opposite buccal (SLOB rule) or two radiographs made at right angle to each other can be used.

On questioning, the mother and the child stated that there were no symptoms including nasal symptoms. They even denied knowledge of its presence. Direct visualisation under dental operating light of the right nostril did not elicit any finding.

TREATMENT

Patient was referred to an ENT surgeon for evaluation and management. A 5 mm cylindrical light emitting diode (LED; figure 3) was removed from the right nasal cavity without general anaesthesia using an ENT-operating microscope with a scoop and microforceps.

The patient tolerated the procedure well without sequelae.

OUTCOME AND FOLLOW-UP

Patient had regular follow-up for the dental treatment and no complications were detected in relation to the nasal foreign body removal.

DISCUSSION

The ENT surgeon explained that the prompt referral had made the retrieval of the nasal foreign body easy and avoided complications. He also stated that it had been a

Figure 1 Intraoral photograph showing fracture of permanent maxillary right and left central incisors involving enamel and little dentin.

Figure 2 A periapical radiograph disclosing the presence of foreign body in right nasal cavity.

recent incident as there was no slough, debris, mucous or granulation tissue deposits over the foreign body. If left for long period of time, these objects may lead to inflammation, infection, ulceration and necrosis of nasal mucous

Figure 3 Photograph of retrieved light emitting diode.

membrane, cartilage or bone.¹ Also, it has the potential risk of epistaxis, purulent rhinorrhoea and, rarely aspiration into the tracheobronchial tree.² Statistically significant relation was present between non-iatrogenic complications and longer permanence foreign bodies (>72 h). Iatrogenic complications were related to children, small plastic artefacts (SPA) and removal attempts by laypersons, untrained health professionals and lack of medical experience in managing foreign bodies.³

Learning points

- ▶ A thorough examination of head and neck when examining a young child because of his/her limited communication skills, and intellectually challenged or mentally ill adults.
- ▶ When nasotracheal intubation is planned dentists should consider exposing radiographs in the office.
- ▶ Refer immediately the cases with suspected foreign bodies to an ear, nose and throat specialist.

Competing interests None.

Patient consent Obtained.

REFERENCES

1. **Ransome J.** Foreign bodies in the nose. In: Ballaytine J, Groves J, eds. *Scott-Brown's Diseases of the Ear, Nose and Throat*. 4th edn. London: Butterworth, 1974:141–6.
2. **Purohit N,** Ray S, Wilson T, *et al.* The 'parent's kiss': an effective way to remove pediatrics nasal foreign bodies. *Ann R Coll Surg Engl* 2008;**90**:420–2.
3. **Figueiredo RR,** Azevedo AA, Kós AO, *et al.* Complications of ENT foreign bodies: a retrospective study. *Braz J Otorhinolaryngol* 2008;**74**:7–15.

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