

**An Unusual Oronasal Foreign Body: Report of A Case**

\*Adoga A A, FWACS \*Adoga A S, FWACS \*\*Nwaorgu O G B, FWACS

\*Department of Surgery (Otolaryngology unit), Jos University Teaching Hospital, Jos, Plateau State, Nigeria

\*\*Department of Otolaryngology, University College Hospital, Ibadan, Oyo State, Nigeria.

**Abstract**

**Background:** Foreign body removal in children is very common in the daily routine of an otolaryngologist but reports of oronasal foreign bodies and their management are rare.

**Method:** The case note of a 5 year old female child presenting with an oronasal foreign body following a domestic accident was retrieved and studied and followed up.

**Result:** a 5 year old female child with an oronasal foreign body which created an oronasal fistula that was closed with local palatal mucoperiosteal-lined flaps.

The patient defaulted following treatment, a common practice by patients in our society.

**Conclusion:** This report highlights the occurrence of this rare condition, its management and the need to put measures in place to prevent domestic accidents especially for those most at risk.

**Key words:** Oronasal, Foreign body, Fistula, Domestic accident.

Date accepted for publication 18<sup>th</sup> August 2008

*Nig J Med* 2008; 459-461

Copyright©2008 Nigerian Journal of Medicine

**Introduction**

Foreign body removal is very common in the otolaryngologist's daily routine<sup>1</sup>, but reports of oronasal foreign bodies and their management are rare. Safe for the report by Harun S *et al*<sup>2</sup> of a similar case of a sharp ended oronasal foreign body in a child and its interesting mode of removal, there is paucity of literature on the subject of oronasal foreign bodies.

Oronasal fistulae occur following maxillary canine tooth extraction, problematic healing of maxillectomy, repair of secondary cleft palate and trauma with foreign bodies as reported in this case. Other etiological factors like infection<sup>3,4</sup> and rhinolithiasis<sup>5</sup> have also been reported.

Their closure presents a great challenge with various methods described ranging from the use of decellularized dermal grafting<sup>6</sup> to a three layer repair consisting of a septal mucosal flap, bone or cartilage graft and a palatal

mucosal flap<sup>7, 8</sup>. Careful tissue handling intra-operatively and adequate post-operative care produces a good outcome.

This report presents the management of a case of an oronasal foreign body following a domestic accident.

**Case Presentation**

The patient, AK is a 5 years old female child referred from a peripheral hospital to the Accident and Emergency unit of the Jos University Teaching Hospital with a nail embedded in the roof of her mouth two hours following a fall on her face while playing with the nail in her mouth.

Bleeding was minimal from the site of injury, no epistaxis and there was no loss of consciousness. She had anti-tetanus prophylaxis from the referring hospital

The major finding on examination was in the oral cavity and nose. In the oral cavity, a rusted metal object (nail) was seen with its upper end embedded in the right paramedian aspect of the hard palate. A 1.5cm longitudinal mucosal laceration surrounded by blood clots was also noted in the hard palate. The pointed end of the nail extended between the patient's lips to the exterior (Figure 1).

Blood clots seen in the right nasal cavity was gently suctioned to reveal the flat upper end of the nail in the floor of the right nasal cavity. Other head and neck examination findings were normal.

Plain lateral radiograph of the skull from the referring hospital showed a radio-opaque object extending from the palate outwards with the upper end noted in the region of the floor of the nasal cavity, however, this radiograph was lost in the course of managing the patient. Ceftriaxone, metronidazole and piroxicam were commenced immediately.

She had the foreign body removed and repair of the oronasal fistula the same day she presented. Under general anesthesia, the wound was cleaned and the longitudinal mucosal laceration was extended.

Mucoperiosteal elevation revealed the upper end of the nail embedded in the hard palatal bony defect.

The upper end of the 3 inches long nail (Figure 2) was gently teased out of this defect leaving a 1cm by 1cm oronasal fistula (Figure 3).

The two tension-free palatal mucoperiosteal-lined flaps were then advanced and sutured together with chromic 3/0 suture closing the fistula (Figure 4).

Post-operatively, the antibiotics and analgesic were continued. Wound healing was uneventful and she was discharged on the 10<sup>th</sup> post-operative day. The patient defaulted following treatment.



Fig 3a- Oronasal fistula following extraction of the nail (arrow).

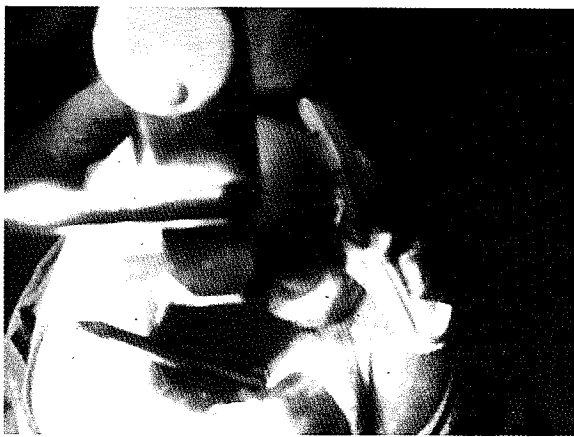


Fig 1- Nail embedded in the hard palate with pointed end projecting outwards.



Fig 3b- The repaired oronasal fistula (arrow).

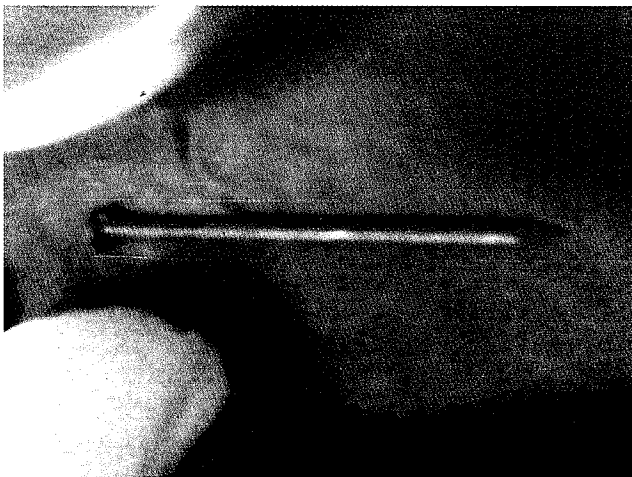


Fig 2- The extracted nail.

## Discussion

Domestic accidents probably occur daily and pre-school children and the lower socio-economic class of individuals have been noted to be more at risk<sup>9</sup>. It is therefore pertinent to introduce measures to prevent such accidents.

Measures to prevent domestic accidents are three-pronged which are environmental change, educational measures and enforcement of legislation by government<sup>9</sup>.

Our experience further highlights the importance for educating parents/or wards on the need for proper and adequate supervision of their children and also keeping dangerous materials away from the reach of these children.

We recommend to government to promulgate laws with a view to prosecuting companies that produce

potentially dangerous materials without indicating such on their containing packs.

The use of local palatal mucoperiosteal flaps in the closure of the oronasal fistula, ceftriaxone (a third

generation cephalosporin), metronidazole and adequate post-operative care probably helped in producing a good outcome.

## References

1. Balbani AP, Sanchez TG, Butugan O et al. Ear and Nose foreign body removal in children. *International Journal of Paediatric Otorhinolaryngology*. 1998 Nov; 46(1-2): 37-42.
2. Harun S, Montgomery P, Ajulo SO. An unusual oronasal foreign body. *J Laryngol Otol*. 1991 Dec; 105(12): 1118-9.
3. Jayasankar PP, Charda J, Shah RM. Oronasal fistula of infective origin and alveolar Necrosis in a 13 year old boy. *Indian J Dent Res*. 2004 Jul-Sep; 15(3): 1107-9.
4. Benazzou S, Boulaadas M, El Kohen A, Essakelli L, Kzadri M. Post syphilitic oronasal communication. *Rev Stomatol Chir Maxillofac*. 2006 Nov; 107(5): 373-4.
5. Deb GC, Tangerina RP, Abreu CE, Santos Rde P, Gregorio LC. Rhinolithiasis as a cause of oronasal fistula. *Rev Bras Otorrinolaringol (Engl Ed)*. 2005 Jan-Feb; 71(1): 101-3.
6. Cole P, Horn TW, Thaller S. The use of decellularized dermal grafting (Alloderm) in persistent oronasal fistulas after tertiary cleft palate repair. *J Craniofac Surg*. 2006 Jul; 17(4): 636-41.
7. Marrell GL, Requena R, Karakla DW. Oronasal fistula repair with three layers. *Plast Reconstr Surg*. 2001 Jan; 107(1): 143-7.
8. Garner JM, Wein RO. Use of the palatal flap for the closure of an oronasal fistula. *Am J Otolaryngol* 2006 Jul-Aug; 27(4): 268-70.
9. Laffoy M. Childhood accidents at home. *Irish Medical Journal*. 1997 Jan-Feb; 90(1): 26-7.