ORIGINAL RESEARCH PAPER

Otolaryngology

AN UNUSUAL AND RARE FOREIGN BODY IN THE NASAL VESTIBULE

KEY WORDS: Foreign Body, Nasal Vestibule, Fish-hook

Priyank D. Talati Junior Resident, Department of ENT, MGM Medical College and Hospital, Navi Mumbai

Swapnil Gosavi Senior Resident, Department of ENT, MGM Medical College and Hospital, Navi Mumbai

Kalpana Rajiv Kumar Professor and Head of Department, MGM Medical College and Hospital

ABSTRACT

Foreign Bodies both organic and non-organic are most commonly encountered emergencies for otorhinolaryngologists, they are seen predominantly in children or in patients with a reduced mental ability. Foreign body depending upon the location can be hazardous if proper measures and immediate action are not taken. Here we present an unusual type of a foreign body of nose, attached to the nasal vestibule, touching the septal cartilage of an eight-year-old female.

Introduction:

Foreign bodies in the ear, nose & throat are the most commonly seen otorhinolaryngological emergencies seen in the emergency departments of various hospitals [1]. Nasal foreign bodies are the most commonly seen foreign bodies closely followed by ear foreign bodies, there is a slight male preponderance of approximately 58.97% [2,3]. There is a description of many unusual nasal foreign bodies in literature [4-6]. There are various types of foreign bodies which vary with respect to size and site of their lodgement. Those may be organic and non-organic, vegetative or non-vegetative, plastic, sharp, metallic etc. The local food constitutes the highest incidence of otorhinolaryngeal foreign bodies [2]. Some foreign bodies are easily accessible and removed as routine OPD procedures, however some foreign bodies warrant the patient to be anaesthetized for removal in the operation theatre, especially when the patient is a child, or the foreign body is lodged deeply or firmly. There is no data available in literature except a case of a fish hook which presented as a foreign body of the nose in a 30-year-old male in literature [7]. Here we present an interesting and unusual case of a fish hook in an 8 year old female child, attached to the nasal vestibule involving nasal cartilage.

Case Report: An 8/F presented to our OPD with a fish hook firmly lodged in the right nasal vestibule. The patient had an alleged history of having the foreign accidently being lodged in her nasal vestibule and epistaxis while she was playing, away from parental supervision. The patient's parents took her to a local family physician, who attempted to remove it, but ended up lodging the foreign body deeper. On examination, we saw the presence of fish hook with its jagged, pointed end lodged in the nasal vestibule, approximately 1.5mm inside the nasal vestibule (Figure 1). The nasal cavity also had presence of blood clots, which were present due to attempted removal as mentioned earlier. Without further manipulation of the foreign body and trial of removal, patient was advised an X-Ray of the nose to get an estimate of the depth at which the hook was lodged in the nose (Figures 2 & 3). X-Rays showed that the pointed end of the hook was firmly lodged in the nasal vestibule. Patient was then immediately taken up for emergency removal of the foreign body under general anaesthesia. Preoperative, patient's guardian manipulated and tried removing the foreign body, however it pushed it even further. and Routine blood investigations were sent, and the patient was given an injection of Tetanus Toxoid. The patient was then intubated to administer general anaesthesia in the operation theatre and the throat was packed to prevent aspiration of blood. The nasal cavity and the site of lodgement of the foreign body were examined with the help of a Killian's Speculum (Figure 4). The part of the vestibule surrounding the hook were infiltrated with approximately 2cc Normal Saline with Adrenaline (in the ratio of 1:100,000). An incision was given in the vestibular mucosa below and above the site of lodgement to dislodge the foreign body. With space created for manipulation, the foreign body was gently and meticulously dislodged from the vestibule, while taking care not to injure the surrounding structures and cartilage with the sharp, pointed end of the hook. The foreign body was the removed in toto and the mucosal free edges of the nasal vestibule were inspected, cleaned and sutured back with 3-0 Vicryl and haemostasis was achieved. The right nasal cavity was then gently packed with ribbon gauze soaked in liquid paraffin. The patient withstood the procedure well and was extubated uneventfully. Post-operatively the patient was kept on parenteral antibiotics and supervision. After removal of the pack and confirming the sutures of the wound, patient was discharged.

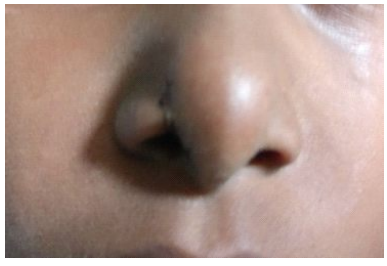

Figure 1: Foreign Body (Hook) seen lodged in the right nasal vestibule.

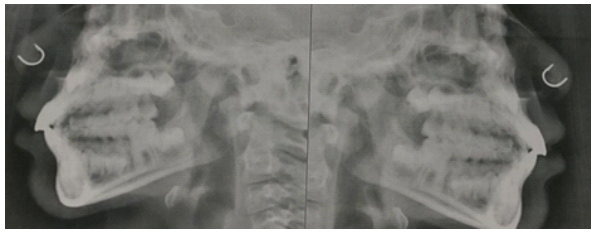

Figure 2: X-Ray Nose (Lateral) showing the lodged fish hook, with its pointed end firmly lodged in the nasal vestibule.

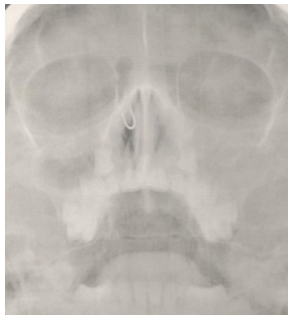

Figure 3: X-Ray showing the orientation of the hook in the nasal vestibule.

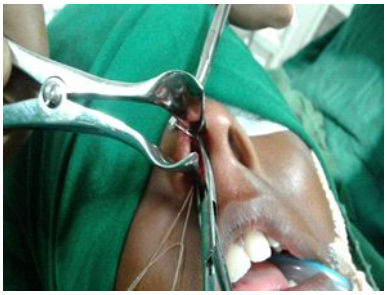

Figure 4: Intra-operative Examination with a Killian's Speculum.

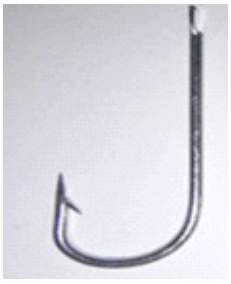

Figure 5: Fishing Hook seen after removal.

Discussion: Foreign bodies of the nose and throat are potential emergencies as they can lead to severe life-threatening complications like airway obstruction. Removal of nasal foreign bodies appears to be a simple procedure, but it can cause potential morbidity due to mucosal injury and mortality due to airway obstruction. The presence of a foreign body in the nose can cause local inflammation and pressure necrosis, which leads to mucosal ulceration and erosion of the blood vessels leading to epistaxis. Further the patient may develop complications like sinusitis, nasal septal perforation, vestibulitis, meningitis, tetanus and diphtheria [(1)].

The most common locations of the nasal foreign bodies are represented by the floor of the nasal passage, just below the inferior turbinate, or the upper nasal fossa anterior to the middle turbinate, while it is relatively rare to find a foreign body in the nasal vestibule as was in our case [(8)]. The foreign body removal should be attempted by experts only as repeated attempts may result in increased morbidity and mortality. Hence careful planning with necessary instruments is mandatory for successful foreign body removal [(1,9)]. In our case, attempted removal by a family physician and relative lodged the fish hook further in the vestibule and septal cartilage which made the removal difficult. The procedure should be necessarily done in the operation theatre to handle the untoward complications during removal, like it was done in our case [(10)]. Careful removal prevents mucosal tears thereby preventing excessive bleeding. After removal, fish hook was examined along with its barb to avoid any remnants. As a fish hook is a heavily contaminated object, tetanus toxoid and antibiotics are to be prescribed to reduce the chance of infection [(11)].

Conclusion: Nasal foreign bodies, if proper measures are not taken and quick action is not taken may have several life-threatening complications, hence attempts to remove ENT foreign bodies must be done only by experienced otorhinolaryngologists. Removal should always be attempted under general anaesthesia in children or in uncooperative patients to prevent risks of aspiration or further mucosal injury. All patients should undergo relevant radiological investigations prior to removal of the foreign bodies, to give the operating surgeon an idea of the depth and nature of the foreign body. All penetrating sharp metal foreign bodies like fish hooks must never be pulled out, as their sharp barbed end can cause mucosal damage due to the force applied while pulling. It is important to inspect the whole foreign body after removal, especially the sharp barbed end, as if the sharp barbed end gets broken and left behind, it will lead to further complications. A fish hook is a very rare foreign body encountered in a child.

Conflict of Interest: The authors of this study declare no conflict of interest with regards to this case report.

References:

1. Fisher J.L. (2013) Nasal Foreign Bodies—Medscape References Updated. Medscape.
2. Chiun, K.C., Tang, I.P., Tan, T.Y. and Jong, D.E. (2012) Review of Ear, Nose and Throat Foreign Bodies in Sarawak General Hospital. A Five-Year Experience. Medical Journal of Malaysia, 67, 17-20.
3. Shrestha, I., Shrestha, B.L. and Amatya, R.C. (2012) Analysis of Ear, Nose and Throat Foreign Bodies in Dhulikel Hospital. Kathmandu University Medical Journal (KUMJ), 10, 4-8.
4. Baluyot, S.T. (1980) Foreign Bodies in the Nasal Cavity. In: Paparella, M.M. and Shumrick, D.A., Eds., Otolaryngology, WB Saunders, Philadelphia, 2009.
5. Guthrie, D. (1956) Foreign Bodies in the Nose. Journal of Laryngology & Otology, 41, 454-457. http://dx.doi.org/10.1017/S0022215100029108.
6. Harner, S.G. (1975) Foreign Bodies in the Ear, Nose and Throat. Postgraduate Medical Journal, 57, 82-83.
7. Kar R, Jagade M, Anoop A, Kedar S, Rohe S, Dnyaneshwar et al. (2014). An Entangled Fish Hook in Nose: A Tricky Case. International Journal of Otolaryngology and Head & Neck Surgery. 03. 137-139. 10.4236/ijohns.2014.33025.
8. Bhatia R., Singhal S.K., Dass A. - Button Cell Causing Septal Perforation in a Child. Clin Rhinol A Int J., 2010;3(3):161-163.
9. Mangussi-Gomes, J., de Andrade, J.S., Matos, R.C., Kosugi, E.M. and Penido Nde, O. (2013) ENT Foreign Bodies: Profile of Cases Seen at Teritiary Hospital Emergency Unit. Brazilian Journal of Otorhinolaryngology, 79, 699-703.
10. Street, I. (2009) Infection and Foreign in the Ear, Nose and Throat. Surgery Journal, 27, 518-512.
11. Sarniak, A.P. and Venkat, G. (1981) Cephalic Tetanus as a Complication of Nasal Foreign Body. American Journal of Diseases of Children, 135, 571-572.