

Endoscopic removal of an unusual foreign body in the nasopharynx of an adult

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Abstract

We report a rare case of sewing needle impaction in the nasopharynx of an adult patient after sneezing. The impacted foreign body was removed using nasal endoscope. To the authors' knowledge, such a case has not been previously reported in medical literature.

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1. Introduction

Foreign bodies are seldom seen in nasopharynx [1]. Contributing further to the lack of knowledge regarding the management of this condition is the absence of its mention in standard Otolaryngology text. Most of these rare cases have been reported in the pediatric population [2,3]. This clinical record presents an unusual case of sewing needle impaction in nasopharynx. The mode of entry, site of impaction, and management was felt to be interesting, hitherto unreported in medical literature.

2. Case reports

A 32-year-old woman presented in the outpatient section of the eyes, nose, and throat department of the Institute of Medical sciences, Banaras Hindu University, Varanasi, with a history of accidental inhalation of a sewing needle 20 days earlier, after sneezing while cleaning her teeth with the said object. Apart from a vague complaint of dull pain in the region of the nose and a degree of anxiety, patient had no other complaints. It would be in medical interest to note that

initially the foreign body (FB) could not be located, as the nasopharynx was not included in the radiologic films of the aerodigestive tract. A private practitioner eventually located the FB in nasopharynx, but failed to retrieve it surgically through the soft palate and referred the case to us. The anterior rhinoscopy showed nothing, but on posterior rhinoscopy a fine metallic needlelike object traversing the nasopharyngeal space obliquely from the left posterior choana was clearly visible. The rest of the eyes, nose, and throat examination was unremarkable.

An immediate x-ray PNS water's view and x-ray nasopharynx lateral view was conducted to visualize the FB. The radiopaque sewing needle was partly seen in the nasopharynx and in the nose (Fig. 1). Because nothing was visualized on anterior rhinoscopy, a nasal endoscopy was planned to locate the radiologically visible FB in nose. Endoscopic examination revealed only a part of the needle lying impacted in the posterior wall of the nasopharynx; the rest of the FB was embedded in the mucosa of the floor of the nasal cavity. Manipulation of the FB at its posterior end via Blakesley-Weil forceps under local anesthesia (using 0°/4 mm Karl Storz endoscope, Karl Storz, Tutlingen, Germany) revealed that it was badly jammed and immobile. Thus, the FB was grasped firmly as close as possible to its embedded end, dislodged, and pushed anteriorly. The pointed end of the needle came protruding out of the mucosa below the inferior turbinate and was grasped by an artery forceps and removed

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Fig. 1. (A and B) X-ray PNS water's view and x-ray soft tissue lateral neck showing the radiopaque sewing needle impacted in nasopharynx.

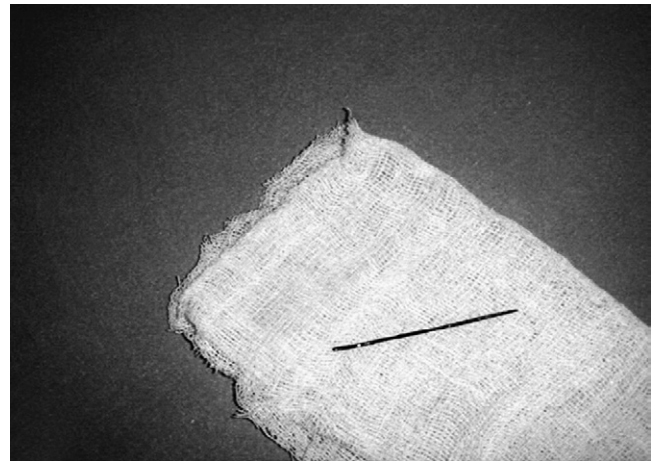


Fig. 2. Sewing needle removed in toto.

in toto (Fig. 2). Check endoscopy revealed a slight bruise in the posterior wall of the nasopharynx.

Fig. 3, a computed tomography (CT) scan,¹ gives us the exact pictographic view of the FB lying obliquely with its anterior end jammed just below the inferior turbinate in the left nasal cavity, and the posterior end impacted in the posterior wall of the adjoining part of nasopharynx.

The postoperative period was uneventful and no complication either of the technique or anesthesia was recorded. The patient was prescribed with antibiotics and analgesics, and discharged within 6 hours of the procedure. Ten days later, a repeat nasal endoscopy was performed and no clinically significant abnormality of any type was detected.

3. Discussion

A retained FB in the nasopharynx of adults is an uncommon occurrence. The few cases that have been recorded in the medical literature are usually attributable to trauma, and invasive surgical intervention under general anesthesia has been the treatment of choice for retrieval of these FBs [1,4].

This case merits discussion on numerous counts. In our case, the mode of impaction of the sewing needle in the nasopharynx after sneezing is interesting. It can be explained as follows: sneezing is a reflex with 2 components. First, air is rapidly inspired (this caused the sewing needle to be ingested through the mouth); second, air is forcibly expelled out through the nasal passages (this probably caused the needle to get impacted in the aforesaid

¹ This CT scan has been done for academic purpose to visualize the exact position of the impacted foreign body and to further authenticate this clinical record. Our hospital is a tertiary care center and this modality of investigation is readily available for teaching purposes. We would like to emphasize that CT scan is neither mandatory for diagnosis and nor does it influence the course of management in anyway. The scan should be viewed as a pictographic representation of the foreign body only.



Fig. 3. A CT scan showing the exact site of impaction of the sewing needle.

manner). Reflex is initiated by irritation of the Vth nerve, and is triggered in medulla [5]. Moreover, there is the unusual site of impaction, with the needle lying obliquely jammed with the anterior end impacted just below the inferior turbinate and posterior end impacted in the nasopharynx (Fig. 3), and the anterior part of the needle embedded in the floor of nasal mucosa in such a way so as to escape diagnosis by anterior rhinoscopy also finds no mention in literature. However, whether dental cleaning with the needle initiated the reflex is debatable. Nevertheless, we would like to emphasize that a casual fiddling with pointed objects such as sewing needles, etc, should be avoided, because these things can get accidentally impacted anywhere in the respiratory tract in conscious adults [6].

Furthermore, this clinical record highlights yet another important indication of nasal endoscopic surgery-FB removal. As compared to the conventional removal of FBs in nasopharynx under general anesthesia, the endoscopic approach is performed on a day care basis under local anesthesia without hospital admission. Moreover, this technique is in accordance with the modern concept of minimally invasive (or access) surgery, thereby causing hardly any discomfort to the patient. All this not only makes

it cost-effective, but also abolishes the hidden costs the on the patient's attendants, in terms of time off from work and time away from home. We believe that the technique can be safely given a try for all sharp and linear objects in the nasopharynx, which can be grasped by Blakesley-Weil or similar forceps. As far as the authors are aware, there is no existing report addressing the role of endoscopes in the retrieval of FBs impacted in the nasopharynx, as described in this work.

In addition, this case also delineates the importance of the nasopharynx as a potential site for ingested FBs. It is important to note that FBs in this area manifest no symptoms, but their disimpaction can have potentially fatal consequences [2]. It would thus be prudent to check the nasopharynx, if a radiopaque FB is not located in the aerodigestive tract radiologically; omitting this region from the x-ray field altogether may result in missed diagnosis as happened in this case too [2].

From our search (Medline/Pubmed) in the literature, we could find only 1 reported case of sewing needle impaction in the rhinopharynx [7]. However, the mode of insertion in this case was intentional and removal was performed orally under general anesthesia. In summary, the interesting mode of ingestion of sewing needle after sneezing, the unusual presentation of impaction of the sewing needle in the nasopharynx, and finally its endoscopic removal under local anesthesia make this case report unique, and thus prompted us to share our professional experience with the medical fraternity.

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