

### Large Foreign Body in Nose in Adult for a Long Time: A Rare Case

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#### Abstract

Otolaryngologists frequently encounter nasal foreign bodies, particularly among children and mentally retarded patients. Many unusual foreign bodies in the nose have been reported like nuts, plastic toy parts, beads and even button batteries. Several symptoms may be present in the case of a nasal foreign body which includes nasal discharge, epistaxis, infection, halitosis, foul breath or body odour and chronic sinusitis. We present a case of 19 years old girl with left sided nasal blockage, foul smell from left nostril and mouth with occasional nasal bleeding for last 13 years. She was treated conservatively but was not improved. On anterior rhinoscopy some blackish material covered with exudates was revealed which was very foul smelling and bleeds on touch. After nasoendoscopy we suspected that it would be an old foreign body which had already formed rhinolith. The large foreign body was fixed with floor, lateral and medial wall (nasal septum) and was removed by 0° nasoendoscope and also through oral cavity under general anaesthesia.

**Keywords:** Foreign body; chronic sinusitis; toxic shock syndrome (TSS).

*Delta Med Col J. Jan 2019;7(1):49 – 52*

#### Introduction

Cases of nasal foreign bodies are generally referred to otorhinolaryngologists.<sup>1</sup> The presence of foul-smelling, purulent nasal discharge may be the sole symptom of a nasal foreign body; its remedy is the removal of the foreign body. However, complications may arise if the nasal

foreign body is not quickly detected, non-removal of the foreign body or missing it may cause a foul-smelling purulent nasal discharge, septal perforation and necrosis of bones.<sup>2</sup> A prolonged period of impaction is even less common, but it is more likely when the foreign body is an inert

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object.<sup>3</sup> Several symptoms may be present in the case of a nasal foreign body. These symptoms include nasal discharge, epistaxis, infection, halitosis, foul breath or body odor and chronic sinusitis. The foreign bodies can even cause septal perforations, synechia, constriction and nasal stenosis.<sup>4</sup> Some foreign body gets stuck in nose like food, small toys, beads, insects, worms or pieces of broken bones and cartilage, tooth brush head. Some uncommon things have drawn interest like fish hook, door handle, metal hooks and eyes, umbrella springs, coins and even anterior nasal pack. Sometimes nasal plastic splint is entrapped in nasal cavity which had been introduced during septoplasty and was not removed post operatively. It was lost during removal and could not be found afterwards. Sometimes diagnosis is very difficult. To the unsuspecting, a unilateral suppurative or mucopurulent fetid nasal discharge may suggest a number of possibilities other than a foreign body. Maggots are also considered as foreign body. Nasal foreign bodies may get trapped in any part of the nasal cavity. The victim may have trouble in breathing if the object is very deep in the nasal cavity. Nasal foreign bodies may also cause itching, pain, headache and frequent sneezing. Blood or a thick, yellowish fluid may drain from the affected nostril. If the foreign body is alive, such as insects or worms, patient may feel movement in their nose. Rare symptoms have been reported, including bromidrosis (foul body odour) and infections, such as facial cellulitis, epiglottitis and cephalic tetanus. Differential diagnoses of a unilateral nasal obstruction include nasal polyp, nasal tumor, septal hematoma, or unilateral choanal atresia. Sometimes diagnosis is very difficult. To the unsuspecting, a unilateral suppurative or mucopurulent fetid nasal discharge may suggest a number of possibilities other than a foreign body. On the other hand, the presence of a foreign body may be suspected but to prove its presence may be a trying task. A high index of suspicion is necessary so that further diagnostic maneuvers can be tried before a label of "no foreign body" is stamped on the case.<sup>3</sup> A foreign body may remain in situ for weeks and only present with a unilateral nasal discharge often with a pronounced vestibulitis.<sup>5</sup>

## Pathology

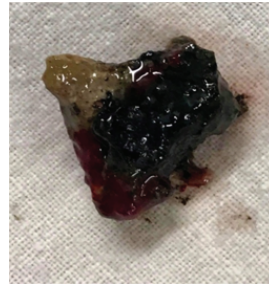
Some foreign bodies are inert and may remain in the nose for years without mucosal changes. However, most inanimate objects initiate congestion and swelling of the nasal mucosa, with the possibility of pressure necrosis producing ulceration, mucosal erosion, and epistaxis. The retained secretion, the decomposed foreign body, and the accompanying ulceration can result in foul fetor. These changes further impact the foreign body because of surrounding oedema, granulations, and discharge. This is particularly seen with vegetable foreign bodies which not only absorb water from the tissues and swell but also evoke a very brisk inflammatory reaction. Occasionally, the inflammatory reaction is sufficient to produce toxemia. A foreign body can act as a nucleus for concretion if it is firmly impacted or is buried in granulation tissue by receiving a coating of calcium, magnesium phosphate, and carbonate and thus becomes a rhinolith. Occasionally this process may occur around an area of inspissated mucus, or even a blood clot. Rhinoliths usually form near the floor of the nose and are radio-opaque. Some foreign bodies like button batteries may result in severe destruction of the nasal septum. These are composed of various types of heavy metals like mercury, zinc, silver, nickel, cadmium, and lithium. Liberation of these substances causes various types of lesions depending on the localization, with an intense local tissue reaction and liquefaction necrosis. They can cause septal perforations, synechia, constriction, and stenosis of the nasal cavity. Maggots and screw worms in the nose initiate varying degrees of inflammatory reaction from a mild localized infection to maximum destruction of the nasal bones (both cartilaginous and bony) with formation of deep, stinking suppurating caverns. The larvae hatch in these caverns and a new cycle is repeated.<sup>2,6</sup>

## Case History

Mrs. Shapla, 19 years of age, married, came to the department of ENT & HNS of Delta Medical

College with left sided nasal blockage, foul smell from left nostril and mouth with occasional nasal bleeding for last 13 years. She gave history of insertion of foreign body at 6 years of age which was not removed at that time. She went to different hospitals where she took medicines but everywhere she gave incomplete history. Her symptom was not improving. She also gave history of occasional headache. Her family members were too much non cooperative and conservative also. Unfortunately during her first visit to us she gave no history of insertion of any foreign body. Then we started clinical examination. On anterior rhinoscopy we saw some blackish coloured material which was covered with exudates, very foul smelling and bleeds on touch and she also had rash on skin of nasal ala. Then we went for nasoendoscopy where we suspected that it would be an old foreign body which had already formed rhinolith. As patient party was too much non cooperative, poor and conservative; they refused to undergo any type of procedure. They wanted only medication as for treatment. After proper counseling we prepared the patient for removal of foreign body. We had to go for general anaesthesia as she was too much non cooperative as well as scared too. Patient refused to do CT scan, so we had to do some important investigations only for anaesthetic fitness. At last we successfully removed a large foreign body which was fixed with floor, lateral and medial wall (nasal septum) by 0°nasoendoscope and also through oral cavity as that was fixed with posterior part of nasal cavity also (Fig:1 and 2). We took all precautions to prevent synechia. We gave nasal splint and merocele (left side). Merocele was removed after 48 hours and splint was removed on 7th post operative day. Then nasoendoscopy was done which was quite well. We gave antibiotics, antihistamines, nasal decongestants, analgesic with H2 blocker and nasal douching for 7 days, gentamicin with hydrocortisone ointment on skin after consultation with skin department. We repeated nasoendoscopy where nasal cavity was clear and functioning. Patient came for follow up on 14th day and 21st day also. Now she has no

complaints and she is quiet happy with her breathing, smell and other functions.



**Fig. 1: The removed foreign body (Through nasal cavity)**



**Fig 2: The removed foreign body (Through oral cavity)**

## Discussion

Foreign bodies are not unusual in the head and neck region, particularly in the body orifices. Although foreign bodies of the nose and paranasal sinuses in adults are uncommon, this problem may occasionally show up clinically. Rhinolith is a partially or completely calcified mass of tissues in the nasal cavity which may form around a foreign body nidus or can develop de novo. It is thought that the predisposing factor is the entry and lodgment of a foreign body. However, other very important factors are needed, since only a tiny fraction of the body gets petrified. They are classified as endogenous when they form around a normal body material, blood clots, misplaced tooth remnants or bony sequestra and exogenous when they form around foreign bodies usually of non-human materials, inserted into the nose. In our case a foreign body could have lodged accidentally into the nasal cavity leading to mucosal trauma surrounding the foreign body and formation of granulation tissue and deposition of debris forming a rhinolith.<sup>5</sup> Cases of nasal foreign bodies are frequently seen during childhood, and they are seen in adults because of traumas or mental disorders. Early detection and subsequent quick removal of the nasal foreign body are essential.<sup>2</sup>

Several important complications may occur with the presence of a nasal foreign body, including formation and development of rhinoliths, erosion into a contiguous structure, toxic shock syndrome and development of infections in surrounding

structures including acute sinusitis or otitis media, periorbital cellulitis, meningitis, acute epiglottitis, diphtheria, and tetanus.<sup>4</sup> The symptoms at the time of lodgment are usually minor and often forgotten by patients, as in our case. The most frequent signs and symptoms after a latent period are unilateral nasal discharge (often blood stained), obstruction and feeling of blockage, epistaxis, and headache, or sinusitis. Our patient has also been treated several times for sinusitis. Probably for the reason of posterior localization and the black color, the foreign body was undetected in previous anterior rhinoscopic examinations. To get to the diagnosis, CT scan and nasal endoscopy are necessary, which also help in making the decision in surgical treatment but CT scan was not possible in our case.

Undoubtedly even illnesses with no complications could prove difficult for clinicians to diagnose. Clinicians should recognize the underlying causes that are responsible for the symptoms of chronic sinusitis and a unilateral nasal discharge should be assumed to be caused by an intra-nasal foreign body until proven otherwise.<sup>3</sup> Cases of foreign body impaction are often dealt with in emergency rooms and by primary healthcare workers. Prime caregivers should be more aware to reduce incidence of this risky health event and capacity building of the primary health workers to handle such cases can lessen the consequences of foreign body impaction.<sup>7</sup>

### Consent

Written informed consent was obtained from the patient's legal guardian for publication of this case report and accompanying images.

### Learning points<sup>5,6,8</sup>

Several points need to be emphasized when dealing with nasal foreign bodies -

Nasal foreign bodies are commonly encountered in emergency departments, particularly among children and mentally retarded patients.

The diagnosis should be entertained in any patient who presents with a persistent unilateral nasal obstruction and discharge.

Nasal foreign bodies are either inanimate objects or, less commonly, animate.

Successful diagnosis and treatment of nasal foreign bodies depends on careful

examinations of the nasal cavity and its adjacent structures.

Medical personnel skilled in the technique of removal of nasal foreign bodies should be involved from the outset.

Due to lack of cooperation from the patients and occasional difficulty in extraction of nasal foreign bodies general anaesthesia should be considered if there is any question arising concerning the adequacy of nasal examination.

Nasal foreign bodies may not have a clear insertion history, even in adolescents/adults.

Rhinolith is an important cause of epistaxis in adults.

Rhinoliths are calcified nasal masses which present with chronic nasal obstruction, discharge, foul odour and facial pain.

### References

1. Onal M, Onet G, Alatas N. An Asymptomatic Foreign Body in the Nose in an Eighteen-Year-Old Patient: Button Battery. 2015;2015:129851.
2. Ince B, Dadaci M, Altuntas Z. Seventeen-Year-Old Asymptomatic Foreign Body in the Nose. 2014;1(1):15-17.
3. Kelesidis T, Osman S, Dinerman H. An Unusual Foreign Body as Cause of Chronic Sinusitis. J Med Case Reports. 2010;4:157.
4. Ahmed K, Taous A. An Unusual Foreign Body Nose Bangladesh J Otorhinolaryngology. 2014;20(2):102-105.
5. Kumer S, Singh AB. An Unusual Foreign Body in the Nose of an Adult. Eur Arch Otorhinolaryngol. 2005;262(6):517-18.
6. Kalan A, Tariq M. Foreign Bodies in the Nasal Cavities: A Comprehensive Review of the Aetiology, Diagnostic Pointers, and Therapeutic Measures. Postgrad Med J. 2000;76:484-87.
7. Mukherjee A, Haldar D, Dutta S, Dutta M, Saha J, Sinha R. Ear, Nose and Throat Foreign Bodies in Children: A Search for Socio-Demographic Correlates. Int J Pediatr Otorhinolaryngol. 2011;75(4):510-12.
8. Hulse K, Thompson C, Gohil R, Hathorn I. An Unusual Case of Chronic Nasal Foreign Body. 2018. doi: 10.1136/bcr-2018-225429.