

Case Series

Neglected foreign bodies in the nasal cavity: a unique case series and review

Himanshu Thakkar*

Dr Thakkar's ENT and Dental Surgical Hospital, Rajkot, Gujarat, India

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*Correspondence:

Dr. Himanshu Thakkar,

E-mail: drhimanshuthakkar@gmail.com

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ABSTRACT

Foreign bodies in the nasal cavity are frequently encountered in pediatric populations, often due to accidental insertion. Typically, these foreign bodies become lodged in either the anterior (vestibular) or, less commonly, posterior (choanal) regions of the nasal cavity. Although diagnosis is usually straightforward, it can be challenging in the absence of a clear history, especially in young children. In our case series, no history of foreign body insertion was available; diagnosis was prompted by clinical signs such as unilateral nasal discharge, nasal obstruction, and occasional epistaxis. The nature of the foreign bodies varied, and removal was sometimes complicated by the risk of associated complications. This study presents several cases of neglected nasal foreign bodies identified during routine outpatient evaluations at our institute. These objects had remained undiagnosed for prolonged periods and were ultimately detected through endoscopic examination. Most patients were children aged 3 to 10 years. Although literature on nasal foreign bodies is limited and usually spans short follow-up periods (typically 3 months to 5 years), imaging particularly CT scans plays a vital role in accurate diagnosis. Management generally involves surgical removal, with endoscopic techniques now preferred due to their safety and efficacy. In asymptomatic cases, periodic radiographic follow-up may be sufficient.

Keywords: Nasal foreign body, Nasal obstruction, Purulent rhinorrhoea, Button battery cell, Crayon, Rubber, Septal perforation

INTRODUCTION

A foreign object getting stuck in the nose is usually a freak incident, often happening by chance, where something from outside ends up lodged in one or both nasal passages—mostly from the front (the nostrils), and only once in a blue moon from the back (the throat side). Nine times out of ten, it's no rocket science to figure out, since the child or someone nearby usually spills the beans.

But if it goes unnoticed, it can show up later like an uninvited guest—causing infections or even mimicking a

tumor, all depending on what's stuck inside.¹ A foreign body retained in the nasal cavity for an extended period—often undetected or inadequately addressed—is termed a neglected foreign body. Its prolonged presence can provoke persistent inflammation, mucopurulent discharge, and mucosal ulceration, often accompanied by a foul odor and progressive nasal obstruction. Over time, the deposition of mineral salts such as calcium and magnesium around the object may lead to the formation of a rhinolith—a dense, calcified mass. These complications underscore the importance of early identification and prompt extraction to prevent chronic morbidity and structural damage.²

CASE SERIES

Case 1

An unusual case was recorded at our institute, successfully removed a crayon stuck in the nose of a 9-year-old girl for three and a half years, the mother of a patient stated, that her daughter had been very upset for the last three and a half years because of the discharge of pus, blood, and foul-smelling fluid from the right side of her nose. Now they had done medicine X-rays in many places, but there was no difference, so they brought her to our institute for treatment. There, Doctor found something stuck deep in her right nostril while examining her with an endoscope.

According to doctor, when this case came to him, he examined it with an endoscopy and found out where the crayon was stuck on the right side of the nose. Treatment was started on an urgent basis. The stuck crayon was broken into two pieces and removed from her nose.

After that, treatment was started immediately, and the girl was taken to the operation theatre. Successful surgery to remove a crayon stuck in a 9-year-old girl's nose for 3 years. Doctor removed it in two pieces within minutes. He used advanced medical procedures to break the crayon into two pieces. This relieved her discomfort. Doctor skillfully removed two pieces of colored crayon with the help of an endoscope.

Case 2

Small children put small things in their nose, ears and mouth while playing, and they get stuck. The most serious case is that if this thing is not removed for a long time, it damages the internal organs and one such incident happened with a 10-year-old girl come up with complain of bleeding from nose. Her father stated, that she had been experiencing a foul-smelling discharge and bleeding from her nose for the past three months, along with difficulty breathing through her nose. Numerous medications for a cold provided no relief, leading them to our institute, blood and pus started coming out of the nose, finally the real disease came out. A piece of rubber was stuck in the nose; doctor examined her nose with an endoscope and discovered a foreign object lodged deep inside. The parents were unaware of how the rubber piece ended up in her nose and mentioned that she had been very troubled for the past three months.

The patient was immediately taken for surgery, and the object, a piece of rubber, was removed within minutes. She had been groaning in pain for months but as soon as the piece was removed, she felt instant relief. Great care has to be taken even while removing the rubber because if it goes deep into the back of the nose, it can get stuck in the throat or windpipe, which can lead to a serious situation. In addition, when any object remains stuck in the nose for three months, there are problems such as

infection inside the nose, bleeding, and foul odor. Despite such adverse conditions, Doctor successfully removed the rubber piece.

Case 3

Recently, a strange case came to light at our institute, A 6 years old child, according to his father, had been suffering from a cold for the last five months. There was a thick yellow discharge from the right side of patient's nose, it smelled bad, and that side of the nose was blocked and painful.

Despite taking medication repeatedly, there was no improvement. When medications failed to provide relief, an X-ray at the hospital revealed a metallic object lodged in the right side of his nose. When questioned in detail, the patient's father stated, that about five months ago, he suspected that the child had put a battery cell in his nose while playing.

This is to informed that when young children are playing, special attention should be given to what they are playing with, and whether they are putting it in their mouth, nose, or ears, as sometimes a common thing can turn into a serious situation.

The doctor promptly performed an immediate endoscopic surgery and successfully removed the battery cell, which had been lodged in patient's nose for five months, within minutes, saving the child's life. Doctor stated that the critical aspect of this case was the child's young age, just 6 years old. A battery cell is a highly dangerous object, as the toxic chemicals it releases within hours can damage the nasal septum and the inner skin, posing a life-threatening risk to the child.

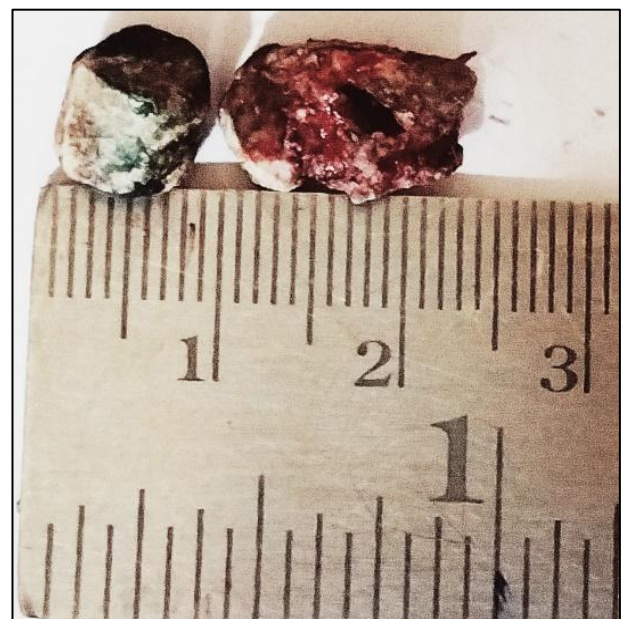


Figure 1: Two pieces of crayon removed from right side of nose.



Figure 2: Endoscopic view of rubber in right nose.



Figure 3: Piece of rubber removed from nose.



Figure 4: Endoscopic view of button battery cell in right side nose.



Figure 5: Button battery cell removed from right nose.

Removing a cell that has been lodged in the nose for as long as five months is also challenging, as it tends to adhere to the surrounding skin inside the nose. This situation underscores the severity of the circumstances. In such cases, a doctor's prompt action and skilful intervention are crucial in saving a child's life by quickly and expertly removing the battery cell that has been lodged in the child's nose for months.

DISCUSSION

Nasal foreign bodies (NFBs) are frequently encountered in emergency settings, predominantly among the pediatric population. Nonetheless, such cases may also arise in adults, particularly those with psychiatric disorders or developmental disabilities. While the majority of NFBs are benign and do not necessitate immediate intervention, certain objects-such as button batteries and magnets-possess a significant risk of tissue damage and mandate prompt removal.

The presence of a nasal foreign body may be readily apparent; however, in many instances, it requires a high index of clinical suspicion. Some cases present acutely, while others may be overlooked, with the foreign object remaining lodged for extended periods-ranging from weeks to even years-before detection.

Broadly, foreign bodies are classified into animate and inanimate, or alternatively, into organic and inorganic categories. Organic materials, in particular, are more likely to provoke an inflammatory response due to their irritating effect on the nasal mucosa, often resulting in

earlier and more pronounced symptoms.^{3,4} Despite appearing trivial, nasal foreign bodies should not be underestimated, as they can lead to significant complications depending on the type of object and the duration it remains in the nasal cavity. Most incidents occur in domestic settings, often during play (84%) or while eating. The type of foreign body is typically influenced by the objects readily accessible in the child's immediate environment. Notably, only 38% of these incidents take place under adult supervision.⁵ Foreign body insertion represents a prevalent issue, particularly within the realm of pediatric otolaryngology, and is frequently associated with complications, some of which may be clinically significant. A major contributing factor to the high incidence of such occurrences is parental inattentiveness-manifested by the careless placement of small objects within a child's reach and inadequate supervision during play. Anatomically, the ears, nasal cavities, and oropharynx constitute the most accessible orifices, thereby accounting for their heightened vulnerability to foreign body introduction.

Foreign bodies in the nasal cavity often present with a wide range of characteristic symptoms. Within a few days of insertion, affected patients-particularly children-may develop a mucopurulent nasal discharge accompanied by a foul odor. It is a well-established clinical principle that unilateral nasal discharge and malodor in children should raise strong suspicion for the presence of a nasal foreign body. Additional symptoms may include nasal obstruction and episodes of epistaxis.⁶

Foreign bodies may be located anywhere within the nasal cavity; however, they are most frequently situated along the nasal floor beneath the inferior turbinate or just anterior to the middle turbinate. Typically, either the patient or their guardians provide a history of deliberate or accidental insertion, often during play in pediatric cases. The range of inanimate objects found is remarkably broad, limited only by the bounds of imagination.

Commonly retrieved items include small toy components, stones, rubber fragments, crayons, chalk pieces, batteries, and paper. Organic materials such as food particles-corn kernels, peas, and nuts-are also frequently encountered. In some instances, however, no recollection of insertion or related symptoms is reported. There are documented cases of foreign bodies remaining undetected or "occult" within the nasal cavity for extended durations, only discovered incidentally.⁷

Common symptoms

Unilateral nasal discharge (often bloody or foul-smelling), nasal obstruction or feeling of blockage, foul odor (cacosmia), epistaxis (nosebleeds), facial pain in some cases, regional infections like sinusitis. Children with nasal foreign bodies often show signs like a bad-smelling, pus-like nasal discharge on one side.

Although many cases are not painful, some children may complain of headaches on the affected side. Bleeding or blood-streaked discharge may also be seen. Sometimes, a child may directly tell their caregiver about inserting something into their nose, making diagnosis easier. In contrast, very young children may simply appear irritable without obvious symptoms. When the foreign body within the nasal cavity is a living organism, the clinical presentation may differ significantly, often exhibiting bilateral symptoms. Affected individuals commonly report nasal obstruction, paroxysmal sneezing, cephalalgia, and mucopurulent nasal discharge. Owing to the potential for secondary infection induced by the presence of the live foreign body, an elevated leukocyte count is frequently observed as part of the host's immunologic response. Additionally, patients may present with pyrexia, further indicative of an underlying infectious process.

During examination, adequate lighting is essential for proper visualization of the nasal cavity. The patient should be positioned in the sniffing position to optimize access and visibility. Application of a topical vasoconstrictor may be beneficial in reducing nasal mucosal swelling, thereby facilitating identification and assessment of the foreign body.

Anterior rhinoscopy and nasal endoscopy should be conducted as primary diagnostic measures, often sufficient for the identification and localization of the foreign body. Furthermore, a thorough otoscopic examination of the tympanic membranes-preferably with endoscopic assistance-should be performed to evaluate for any signs of otic inflammation or concurrent pathology. Auscultation of the lungs is also imperative, aiming to detect any evidence of aspiration, such as wheezing or abnormal breath sounds, which may signify lower respiratory tract involvement. The removal of nasal foreign bodies in children demands both clinical experience and a calm, patient approach. Repeated removal attempts should be avoided, as they may worsen the situation or cause complications. It is essential to have emergency airway equipment readily available in the room prior to any removal attempt.⁸

CONCLUSION

Nasal foreign bodies represent a common clinical occurrence, particularly among pediatric populations. While typically benign, these objects can precipitate significant complications if neglected-especially in cases involving hazardous materials such as button batteries-underscoring the critical importance of prompt removal, ideally under endoscopic guidance. Although endoscopic intervention facilitates both accurate diagnosis and safe extraction, the most effective approach remains prevention through vigilant supervision and public health education. Given the potential for deleterious sequelae stemming from the nature of the object, secondary infection, or injudicious removal techniques, early

recognition and timely endoscopic evaluation are paramount in mitigating risks associated with retained nasal foreign bodies.

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REFERENCES

1. Kharoubi S. Corps étrangers des fosses nasales: étude de 700 cas et revue de la littérature. *J Pédiat Puéricult.* 2010;23(6):314-21.
2. Abou-Elfadl M, Horra A, Abada RL, Mahtar M, Roubal M, Kadiri F. Nasal foreign bodies: Results of a study of 260 cases. *European Annal Otorhinolaryngol, Head and Neck Dis.* 2015;132(6):343-6.
3. Zhang T, Zhuang H, Wang K, Xu G. Clinical Features and Surgical Outcomes of Posterior Segment Intraocular Foreign Bodies in Children in East China. *J Ophthalmol.* 2018;1:5861043.
4. Morris S, Osborne MS, McDermott AL. Will children ever learn? Removal of nasal and aural foreign bodies: a study of hospital episode statistics. *Ann R Coll Surg Engl.* 2018;100(8):1-3.
5. Claudet I, Salanne S, Debuissou C, Maréchal C, Rekhroukh H, Grouteau E. Nasal foreign body in infants. *Archives de Pédiatrie: Organe Officiel de la Société Française de Pédiatrie.* 2009;16(9):1245-51.
6. Figueiredo RR, Azevedo AA, Kós AO, Tomita S. Nasal foreign bodies: description of types and complications in 420 cases. *Revista Brasileira de Otorrinolaringologia.* 2006;72:18-23.
7. Chan TC, Ufberg J, Harrigan RA, Vilke GM. Nasal foreign body removal. *J Emerg Med.* 2004;26(4):441-5.
8. 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(898):484-7.

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