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CASE REPORT
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WOOD SPLINTERS: AN ODDLY RETAINED NASAL FOREIGN BODY IN AN ADOLESCENT GIRL AFFECTED BY PSYCHIATRIC ILLNESS

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ABSTRACT

INTRODUCTION

Foreign bodies in the nasal cavity are commonly seen in children but are rare in adolescents and typically accidental. Intentional insertion of nasal foreign bodies in adolescents is often associated with underlying psychiatric disorders. Chronic foreign body impaction can lead to significant complications, including infection, tissue erosion, and formation of a gossypiboma-like mass.

CASE REPORT

We present a case of an adolescent girl with psychiatric illness who has been inserting wooden splinters in her left nasal cavity for 5 months. She presented to the out-patient department with complaints of nasal blockage, nasal discharge and palatal bulge over left side. Patient was investigated and foreign body was removed endoscopically from her left nasal cavity and maxillary antrum. It was found to be multiple wooden splinters surrounded with necrotic granulation tissue.

CONCLUSION

This case highlights the rare occurrence of nasal gossypiboma due to self-insertion of foreign bodies in an adolescent with OCD. It underscores the importance of thorough history-taking, radiological evaluation, and interdisciplinary management, including psychiatric intervention, in chronic nasal foreign body cases.

KEYWORDS

Nasal foreign body, Gossypiboma, Obsessive-compulsive disorder, Adolescent

INTRODUCTION

A wide variety of Nasal foreign bodies are generally encountered during emergency practices of ENT like beads, paper, parts from toy, piece of plastic, peas, beans, seeds, eraser, sponges, thermocol balls, chalk, marbles, buttons, batteries and many more.

Foreign bodies in the nose are common in age group between 2 to 5 years of age and rare in adults. Adults who present with Nasal foreign body usually have a history of either injury from accidents or coexisting mental disorders.

Foreign bodies of organic origin absorb water from tissues and swell up causing an intense inflammatory reaction that can lead to toxaemia and mucosal erosion,1 whereas

metallic foreign bodies do not cause inflammation and destruction of surrounding tissues and may be retained in the soft tissues for years. Exceptions of this are batteries, which are dangerous and need urgent removal as they cause mucosal necrosis leading to perforation of the septum or lateral nasal wall necrosis.

Authors report a case of an adolescent girl with multiple retained Wooden Splinters in nasal cavity with erosion of bone of hard palate.

CASE PRESENTATION

A 16 years old girl presented to out-patient with left sided nasal obstruction and foul-smelling discharge for 5 months. She also had complaint of bulging of left side of hard palate for 1 month. She gave history of occasional bleeding from left nasal cavity which was small in amount (2-3 drops of fresh blood) and used to stop spontaneously. On detailed enquiry, she revealed that she has been inserting small splinters of wood in her left nasal cavity for a period of last 5 months. Anterior Rhinoscopy revealed presence of a brownish mass with irregular surface, covered with discharge in left nasal cavity, which was tightly filling the nasal cavity and not allowing any other nasal structure to be visualised. The mass was seen pushing the septum towards right side. On probing, mass was felt to be unusually hard without attachment to any of the walls(Fig. 1). Posterior rhinoscopy revealed mass beyond left posterior choana going into nasopharynx. Oral cavity examination was done which showed presence of smooth bulge over left side hard palate with a discharging sinus over left upper 2nd molar(Fig. 2). On intraoral palpation, the bulge was smooth while the usual firmness of underlying submucosal palatal bone could not be appreciated. No mucosal erosion or palatal perforation was noted. Rest of the oral cavity examination was unremarkable. Patient was admitted to ENT ward for further investigations. The rest of the ear, throat examination showed no abnormality. Her complete hemogram was done which was within normal limits. Ophthalmological evaluation was done which was found to be normal. Psychiatry reference of the patient was sought which revealed patient to have obsessive compulsive disorder.

A CECT Nose and PNS was ordered which revealed a well-defined mass (62x46x40 mm) with internal hyper-densities, calcifications and multifocal air specks seen in left nasal cavity. It was causing mass effect as expansion of left nasal cavity with significantly right sided deviated nasal septum, which was thinned out and eroded. The mass was also eroding the hard palate and upper alveolar arch in the region of premolar (2nd) and molar (1st) on left side(Fig. 3,4). Findings were suggestive of Gossypiboma. Patient was planned for removal of Gossypiboma under general anaesthesia. The lodged foreign bodies were multiple wooden splinters, which were endoscopically removed along with inflamed nasal mucosa. Middle meatus antrostomy was carried out and maxillary antrum was cleared. Normal nasal structures in left nasal cavity were found to be eroded along with palatal bone over left side. A total of 1381 small wooden splinters were recovered(Fig. 5). Anterior nasal packing was done and the pack was removed after 24 hours. Check Endoscopy was done after pack removal. The patient was discharged after 5 days. Patient was followed up two weeks later. All examinations including endoscopy, showed no signs of any foreign material or inflammation. Symptoms of the patient improved following foreign body removal. Patient was reviewed in Psychiatry as well and medications were started to prevent further compulsive behaviour.

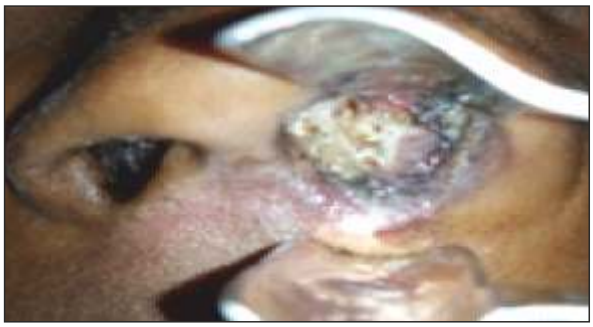

Fig.1- Mass with foul smelling discharge filling left nasal cavity

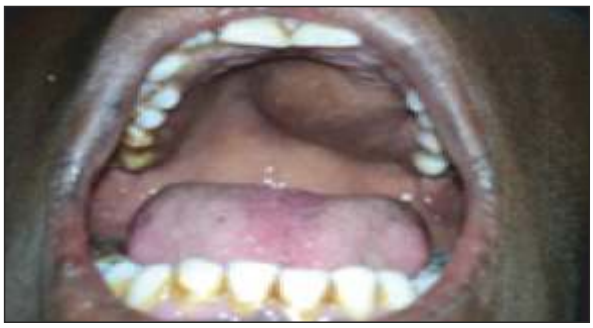

Fig. 2- Showing smooth bulge over left side hard palate

Fig.3- Preoperative CECT showing gossypiboma in left nasal cavity; axial cut

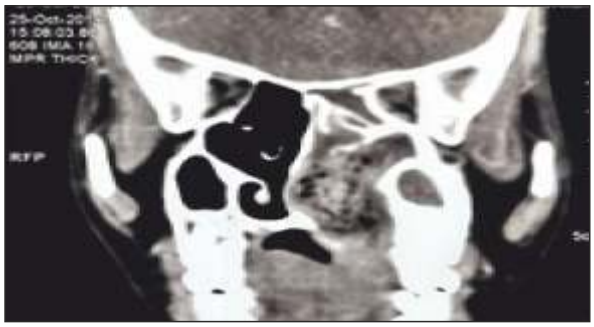

Fig. 4- Preoperative CECT showing gossypiboma in left nasal cavity; coronal cut

Fig. 5- Endoscopically recovered Wooden Splinters

DISCUSSION

Review of previous case reports suggest that most nasal foreign bodies are seen in children while it is rare in adults. Adults with nasal foreign body have a history of either surgery or accidental injury or mental illness. The classical symptom of a retained intranasal foreign body is unilateral foul smelling nasal discharge.2

In this study, patient is an adolescent female who has been suffering from nasal obstruction and foul-smelling discharge for 5 months. Previous published case studies by Kate Hulse reported a case with nasal foreign body for 5 years and M Sudeep have quoted similar cases of retained nasal foreign body in an adult patient of 50 years.2,3

Occult foreign bodies can remain asymptomatic for long times. The foreign body is usually trapped by the inferior turbinate, in the anteroinferior part of the nasal cavity. Rarely it is found posteriorly or superiorly, pushed back by previous attempts at extraction.1

In the present case, the patient had a psychiatric illness and had been inserting small wooden splinters into her nasal cavity over a period of 5 months. The wooden splinters initiated a brisk immune response leading to congestion and swelling of the nasal mucosa, mucosal erosion, and epistaxis. The retained secretions of the decomposed foreign body and the inspissated mucopus led to

surrounding edema and further impaction of foreign body, gradually the foreign body eroded the nasal septum, antero-inferior part of inferior turbinate and hard palate.4

Sometimes a foreign body which has been retained for a long time, acts as a nucleus for concretion and gets firmly impacted and buries in the granulation tissue by receiving a coating of calcium, magnesium phosphate, and carbonate and thus becomes a rhinolith.5

Several complications can occur with the retention of a nasal foreign body, including erosion of surrounding structure, toxic shock syndrome, development of infections in surrounding structures including acute sinusitis or otitis media, periorbital cellulitis, meningitis and tetanus.4

Foreign body like Button battery needs urgent removal due to risk of leakage. Impacted button battery in the nasal cavity can lead to septal perforation, nasal synechia and saddle nose deformity, therefore should be removed at the earliest.6

Prior localization of the foreign body is important to avoid injuries to adjacent structure during surgical removal and to minimize time of removal. A radio-opaque foreign body can be easily detected with routine radiological investigation.

Various methods for removal of intranasal foreign body are the use of hooks, forceps, suction, or sometimes endoscopic assisted removal.

CONCLUSION

Findings of this case study suggests that in case of persistent unilateral foul smelling nasal discharge a possibility of retained or forgotten foreign body should be considered and complete investigation should be done including a CT scan along with a thorough physical examination and endoscopy. Mental illness may be associated in an adult patient, who has no history of previous surgical intervention or accidental injury. In this case report, we presented a successfully managed patient of retained nasal foreign body with associated mental illness without any complications.

Learning Points-

1) Foreign body in nasal cavity is usually seen in children, adults with nasal foreign body have either a history of surgery or accidental injury or associated mental illness.
2) Retained foreign bodies or Gossypiboma of nasal cavity are generally removed endoscopically under general anaesthesia.
3) Prior localization of foreign body using radiological investigations should be done to avoid injuries to adjacent structure and minimize time of removal.

DECLARATION

Ethical approval was taken from Institutional ethics committee. Informed consent for publication was obtained from patient and attendant.

Author's contribution: All the authors contributed to the study conception and design.

Competing interests: The authors declare that they have no competing interests

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