The foreign bodies of nasal cavity are common in the pediatric age groups and their removals are common ENT emergencies occurring from 9 to 15% of the total specialized services. The adult with nasal foreign bodies are rare. Whenever the adult patients present with nasal foreign bodies, the underlying psychiatric disorder must be searched for. Patients with normal intelligence may also present with foreign bodies inside nasal cavity. Self introduction of foreign bodies inside nasal cavity and self destructive behaviors are rare. We present here a unique case of foreign body inside nasal cavity which was accidentally discovered preoperatively.

**Key Words:** Adult; Nasal cavity; Foreign bodies.

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**Introduction:**

The foreign bodies of nasal cavity are common in the pediatric age groups and their removals are common ENT emergencies occurring from 9 to 15% of the total specialized services. The adult with nasal foreign bodies are common in the mentally retarded and psychiatric patients.

Nasal foreign bodies usually presents with sneezing, coryza and nasal blockage that develops to unilateral purulent and fetid rhinorrhea and is more excessive as longer as the permanance period in nasal cavity. Foreign bodies may be animate or inanimate.

Here we are presenting an interesting case of a farmer with a large number of steaks of sweeping brush (made of coconut leaves) inside his nasal cavity that was introduced by himself over the period of 5 years.

**Case Report:**

A 50 years old man presented to the otorhinolaryngology outdoor with complain of sudden onset of bleeding from right nasal cavity. There was no active bleeding at presentation. He also complained of right sided nasal obstruction since last 5 years. The obstruction was gradually increasing in nature and associated with foul smelling discharge. For this, he was socially outcast even from his wife. He gave no history of foreign body introduction inside the nasal cavity.

He was examined carefully. Anterior rhinoscopy showed deviated nasal septum to the left side with a reddish granular farm mass completely filling the right nasal cavity. The mass bleeds on touch. Posterior rhinoscopic examination revealed congested post end of inferior turbinate with the mass seen through right choana. Diagnostic nasal endoscopy was done but the endoscope could not be negotiated on right side as mass was completely filling right nasal cavity and no anatomical landmark was visible. On left side, endoscopy showed normal looking nasal mucosa. Examination of ear revealed no abnormality. Examination of throat revealed diffuse hyperaemia over the posterior pharyngeal wall. There were no palpable lymph nodes in the neck.

X-ray PNS (water’s view) revealed diffuse opacity in right maxillary sinus and deviated septum to left side. The CT scan of PNS (Figure 1) was done which showed right maxillary polyp with blockage of osteomeatal complex and soft tissue density with air resembling spongioform appearance inside the right nasal cavity. The detail hematological works up was done and were within normal limits.

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**Unusual Foreign Body in Nasal Cavity : A Case Report**

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**Fig 1 : CT scan of PNS (coronal view) showing right maxillary polyp with blockage of osteomeatal complex and soft tissue density with air resembling spongioform appearance inside the right nasal cavity.**

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Patient was planned for lateral rhinotomy under general anesthesia. Surprisingly, preoperatively (Figure 2), we found more than hundred broom steak (Figure 3) of size approximately 4-5 cm in length and 1-2 mm in diameter each inside the right nasal cavity. Nasal mucosa was found thicken with the formation of granulation tissue around the foreign bodies. The right maxillary sinus was seen filled with polypoidal mass which was removed and sent for histopathological study which revealed inflammatory polyp. The whole of nasal cavity and maxillary sinus was washed with normal saline and was packed with antibiotic soaked roller gauze pack. The nasal pack was removed two days after surgery. Psychiatric consultation was done in the postoperative days and he was diagnosed as having Impulse controlled disorder. The psychiatric treatment was initiated on the fifth postoperative day. The patient was followed up for 6 months and he is doing well without any sequelae.

Discussion:
The foreign bodies in adult are mainly seen in mental retardation or self-inflicted harm as seen in suicidal attempt. These foreign bodies can be introduced spontaneously or by accident, the former is more common in children or patients with psychiatric disorders, and the latter in adults.

The whole of nasal cavity and maxillary sinus was washed with normal saline and was packed with antibiotic soaked roller gauze pack. The nasal pack was removed two days after surgery. Psychiatric consultation was done in the postoperative days and he was diagnosed as having Impulse controlled disorder. The psychiatric treatment was initiated on the fifth postoperative day. The patient was followed up for 6 months and he is doing well without any sequelae.

The foreign bodies in adult are mainly seen in mental retardation or self-inflicted harm as seen in suicidal attempt. These foreign bodies can be introduced spontaneously or by accident, the former is more common in children or patients with psychiatric disorders, and the latter in adults.

The nasal foreign bodies may be classified into organic and inorganic. The plastic and metal are typically encountered as inorganic foreign bodies. The organic foreign bodies usually produces earlier symptoms as they are more irritating to the nasal mucosa. The common examples of plastic and metal foreign bodies include part of toys, paper, button, beads and stones. The examples of organic foreign bodies are food, rubber, wood, sponge and even metallic Chinese batteries of toys. The mentally retarded patient accidentally or deliberately introduce foreign bodies in the nose as they may have childish behaviors of often the children less than five.

Fig 2: Per-operative picture showing foreign body inside right nasal cavity through lateral rhinotomy incision.

Fig 3: Photography showing the broom steaks along with polyp after removal.

The clinical presentations of adult foreign bodies are varied and may resemble the rhinolith. The rhinolith is again the rare disease of nasal cavity and may develop around the foreign bodies in nose which are surrounded by layer of calcium and magnesium salt around the central nucleus.

The foreign bodies in the nose may be living beings. The most associated ones to complications are myiasis. The myiasis can cause suppuration and ample destruction of the nasal mucosa, leading to turbinate and septal cartilage necrosis, extension to paranasal cavities, orbit and CNS. The foreign bodies are more common in right side of nose. The common clue for the diagnosis of nasal foreign bodies is unilateral foul smelling nasal discharge and nasal obstruction. This clue is more helpful particularly in children and if such symptoms are present then the patient should be consider to have foreign bodies in the nose until proven otherwise. The patients with nasal foreign bodies are at risk of inhalation into the lung with subsequent complications.

The size and shape of the foreign bodies can determine the difficulty in its removal, what can cause epistaxis, more rarely septal perforation, rhinosinusitis and broncho-aspiration.

In psychiatric patients the history from the patients may not be helpful as in our case. They may keep on denying about the self introduction of the foreign bodies in the nose. If it is the organic foreign bodies, it will not be seen in the CT scan of the paranasal sinus. So, high index of suspicion is required before making the diagnosis.

References:

**Abbreviations:**
ENT - Ear, nose, throat  
PNS - Paranasal sinus  
CT - Computed tomography  
CNS - Central nervous system.