NEGLECTED EXTRANEOUS BODY IN MAXILLARY SINUS PRESENTING AS A SINO-NASAL MASS

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ABSTRACT
Foreign bodies in paranasal sinuses are quotidians. However occurrence of long standing foreign body in maxillary sinus due to penetrating trauma is feeble. We present a rare case of a 17 year old male with obstructed foreign body for the last three years with resulting sino-nasal mass formation.

INTRODUCTION
Foreign body in Para Nasal Sinuses is not a rare article. Out of these, maxillary sinus foreign bodies’ account for 50% to 75% (Krause et al., 2002) of cases followed by frontal and sphenoid (Rai and Sharma, 1995; Ramdass, 1996) sinuses in order of frequency. A variety of maxillary sinus foreign bodies have been stated such as teeth, dental materials, bullets, ribbon gauge, matchsticks, wooden pieces, sewing needle, knife, etc (Selvaraj, 2012). Cases of pellets lodged in maxillary sinus as an outcome of air gun injury have also been reported in literature (Mahajan and Shah, 2004; Connell et al., 1995). This article describes a rare case of a long-standing foreign body in maxillary sinus presenting as a large sino-nasal mass.

CASE REPORT
A 17 year old male presented to the outpatient department, with leading complaint of teeming bleeding from his left nostril since morning. Patient was haemodynamically stabilized and intranasal bleeding was controlled and blood investigations were sent. History revealed bleeding from left nostril on and off for the last 6 months which used to subside spontaneously. There was associated history of purulent discharge from left nostril for the last 4 months. Patient recalled accidental air gun injury to left side of his face 3 years back. Entry wound healed by itself without any intervention as patient did not pursue any medical care. On examination left facial swelling was existent in maxillary region. On anterior rhinoscopy, a pale mass was seen filling left nasal cavity. Posterior arrangements could not be visualized. Ophthalmologic examination was normal. Blood coagulation profile was within normal limits.

Contrast Enhanced CT scan (CECT) of paranasal sinuses revealed soft tissue mass occupying left maxillary sinus and left nasal cavity, extending posteriorly into nasopharynx, lifting the floor of left orbit. No significant enhancement was seen on CECT. A foreign body of metallic density was seen on medial side of left maxillary sinus (Figure 1&2) and surgical removal was planned. Patient was operated under general anaesthesia via Caldwell Luc’s Approach. Left maxillary antrum was reached and anterior wall of maxillary sinus was found eroded by the mass filling the antrum. Mass was removed.
from the antrum. Floor of orbit and posterior wall of sinus were intact. Medial wall of maxillary sinus was partially eroded. Nasal endoscopy was done and mass extending into left nasal cavity and nasopharynx was taken out. Bullet was found embedded in the mass (Fig. 3). Nasal packing was done and sub-labial incision was sutured. Pack was removed after 48 hours. Histopathological examination revealed fibro-collagenous tissue lined by columnar epithelial cells with extensive necrotic debris and mixed inflammatory cells with areas of haemorrhage. The immediate and long term recovery was uneventful. Wound healed completely without any complication.

**Figure 1.** CECT PNS axial section showing foreign body with surrounding mass in left maxillary sinus

**Figure 2.** CECT PNS coronal section showing foreign body in medial wall of left maxillary sinus.

**Figure 3.** Excised sino-nasal mass with foreign body (bullet).

**DISCUSSION**

Air gun injuries are mostly accidental but sometimes they can occur as a result of assault. Air gun injuries are more common and more severe in children because of their thin bones which can easily be traversed by the pellets to enter the deeper tissues. Injuries can range from being trivial to grievous. Apart from causing acute trauma, pellets if not removed may remain silent for years (Dutta et al., 2006) or may cause long term sequelae. Late complications include chronic sinusitis, facial neuralgia, rhinolith formation, rhinorrhoea, cutaneous fistula, lead poisoning (Plumbism) (Kiran and Mittal, 2014; Kikano and Stange, 1992) foreign body granuloma (Goswami, 2013) and even malignancy (Brinmeyer, 1963).

**CONCLUSION**

There is ambiguity in the literature whether to remove metallic foreign bodies, particularly shot gun pellets or to leave them in situ. In authors’ opinion, a metallic foreign body in maxillofacial region must be surgically removed to avoid short term/ long term sequelae.

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REFERENCE