



Traumatic Foreign Body in the ethmoid sinus: Case Report

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Penetrating injuries of the paranasal sinuses due to a foreign body are rare. Foreign bodies are usually removed if they are accessible with no serious complications. During removal endoscopy is applicable. Most frequent foreign bodies are metallic or vegetable in nature. We present here a case of a pellet injury of the ethmoid sinuses.

This foreign body was removed successfully by endoscopic approach without complications.

The presentation of the patient and the operative procedure are well described with a literature review. We present this case because of it is rare in the ethmoid sinus in our country. Actually the application of endoscopy here is unique.

INTRODUCTION

In the adult, foreign bodies of the nose or paranasal sinuses are mainly caused by traumatic events.⁽¹⁾ Penetrating injuries of the paranasal sinuses due to a foreign body are rare, and evaluation of the extent of injury plays a major role in planning management.⁽²⁾

The removal of these objects necessitate a surgical endoscopic approach which demands a well-founded anatomy of the sphenoethmoidal region because of the presence of important and vital structures.⁽³⁾ Literature review reveals that most frequent foreign bodies are metallic or vegetable ones.⁽⁴⁻⁶⁾

We present here a case of pellet injury of the ethmoid sinuses. This FB was removed successfully by endoscopic approach without complications.

CASE REPORT

A 17-year-old male patient was presented with history of accidental injury to the nose while hunting. The patient

was first examined in the Emergency Room immediately after the accident and he was fully conscious with a history of epistaxis which stopped spontaneously, then referred to ENT department for evaluation.

On examination, ulceration was seen on the right side of the nasal septum with loss of mucosa and exposed cartilage with destruction of part of the middle turbinate with slight bleeding in the nasal cavity. No deformity of the nasal bone was seen.

Conventional radiography revealed metallic foreign body in the ethmoidal region.

CT scan was done, and it revealed the presence of foreign body in the right ethmoid paranasal sinuses, below the frontal recess (Fig. 1).

Operative procedure revealed a pellet (Fig. 2).

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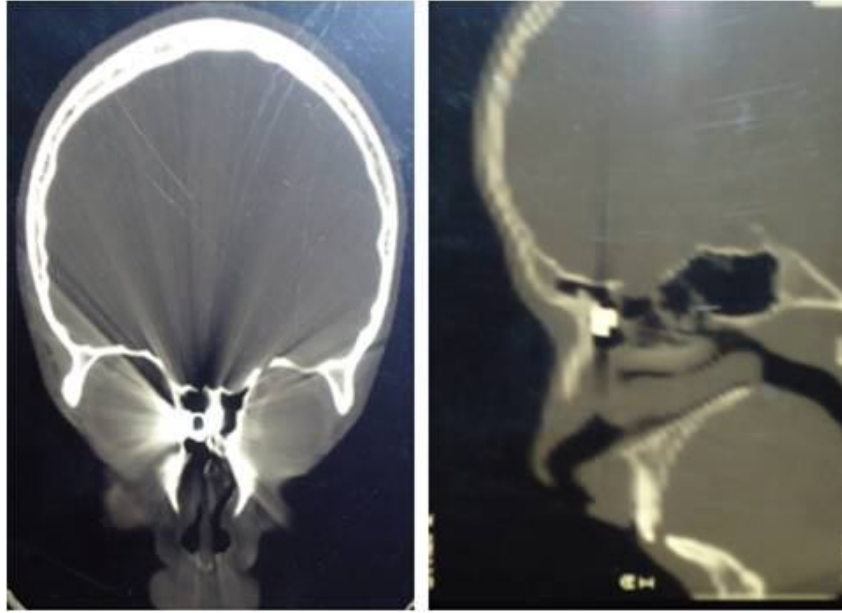


Fig 1. Pellet injury in the ethmoid sinuses.



Fig 2. A pellet post operatively.

OPERATIVE PROCEDURE

Under general anesthesia, endoscopic sinus surgery was performed using both zero degree and 30 degrees rigid endoscopes. Hemostasis was achieved using neuropatties soaked in diluted adrenalin. First, the lower half of the middle turbinate was resected using a turbinectomy scissor, because it was destructed by pellet and for better exposure, then the bulla was opened and removed. Later the upper part of the ethmoid cell is dissected until the FB is seen and removed by a forceps.

A light pack was inserted after completion of surgery, and it was removed the second day. The patient was kept on broad spectrum antibiotic (Clavodar (amoxicillin-clavulinate) 1gm bid for 10 days, together with local vasoconstrictor drop (xylometazolin), for one week.

Follow up was done weekly for one month, and then twice weekly for another month.

No major complication was reported during the follow ups, minor complications in form of adhesions between the septum and the inferior turbinate was opened in the debridement sessions.

DISCUSSION

Most reported foreign bodies are metallic or vegetable ones. In our case, the foreign body is metallic in nature (pellet).

There was a suspicion of suicidal attempt, which was denied by the patient. This was assumed because of the nature of injury.

The routine CT scan discovered the foreign body and its extent. This underlies the importance of CT scan in the evaluation of such traumatic cases.⁽³⁾

The effectiveness and the safety of the endoscopic approach are well established in dealing with this case, as the FB was removed successfully without any serious complication, especially optic nerve injury, orbital damage or CSF leak.

The outcome of the endoscopic approach in dealing with similar cases was revealed in literature review.⁽²⁻⁹⁾

In conclusion, the endoscopic approach is effective and safe in dealing with foreign bodies in the paranasal sinuses, and we present this case because of its rarity in the literature.

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