A forgotten foreign body in the frontal sinus

B. Viswanatha · L. Krishna Naik · S. Karthik · R. Anil Kumar

Abstract A 46-year-old female patient presented with a discharging wound over the nasal bridge, near the medial end of the right eyebrow of 2 months duration. She did not give any history of trauma or surgery in the past. Wound exploration showed a glass piece in the floor of the right frontal sinus. After showing the glass piece, patient remembered road traffic accident she had at the age of 18 years. Patient was asymptomatic for 28 years.

To our knowledge, this is the longest retained case of asymptomatic foreign body in the frontal sinus reported in the world literature. Case report and a review of literature concerning foreign body in the frontal sinus are presented.

Keywords Frontal sinus · Foreign body

Introduction

The occurrence of a foreign body in the paranasal sinuses is extremely rare [1]. The frontal sinus is a rare site of lodgment of foreign body [2]. In spite of its vulnerable location, the frontal sinus is not a frequent site of lodgment of foreign body [2–4].

There have been few reports in the literature, of the patients presenting with foreign body in the frontal sinus [5]. In most of the instances, the foreign body was removed at the time of lodgment, but reports of chronic asymptomatic foreign body have been rarely reported [3, 5–7]. We report a case of an asymptomatic foreign body lodged in the floor of the right frontal sinus, lying there for 28 years. Its removal was not associated with any complication.

Case report

A 46-year-old female patient presented with a discharging wound over the nasal bridge, near the medial end of the right eyebrow for the past 2 months. It was associated with scanty purulent discharge and intermittent localized pain. She did not give any history of trauma or surgery in the past. Patient did not have relief from medical treatment.

On examination, there was a small discharging ulcer measuring 4 × 3 mm. Surrounding skin was edematous and tender (Fig. 1). Discharge was scanty, purulent and not foul smelling. Tenderness was present over the floor of the right frontal sinus. Rest of the ENT examination was normal.

X-ray of the paranasal sinuses showed features of right frontal sinusitis. It did not show any evidence of foreign body or bone destruction. Our patient could not afford a CT scan.

Diagnostic nasal endoscopy showed mucosal edema and yellow color discharge in the right frontal recess region.
Under anesthesia wound exploration was done. A triangular piece of glass measuring $8 \times 9 \times 6$ mm was removed from the floor of the right frontal sinus (Fig. 2). Sinus mucosa was congested and edematous (Fig. 3). Postoperative period was uneventful (Fig. 4).

After showing the foreign body patient remembered road traffic accident, which she had at the age of 18 years. At the time of accident, she had a lacerated wound at the medial end of right eyebrow and it was sutured. As there was no problem, patient had forgotten about the accident. Patient was asymptomatic for 28 years.

Discussion

Patients with paranasal sinus foreign body are not commonly seen in otolaryngological practice; glass in the frontal sinus as a complication of maxillofacial trauma should be very rare, and papers dealing with this issue appear to be rare in the English literature [1].

The various foreign bodies reported in the frontal sinus are stone [8], glass pieces [1], gunshot pellets [9], bullet [3] and metallic foreign body [10]. About 70% of these foreign bodies are associated with some form of maxillofacial trauma, while the remainder occurs in patients who have had surgical treatment for dental problems. More than 50% of the foreign bodies in the paranasal sinuses are found in