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# A rare foreign body in the nasal cavity

Rzadki przypadek ciała obcego w jamie nosowej

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Abstract

Nasal foreign bodies are a common occurrence in children and are relatively easy to be removed in an outpatient setting. Depending on the type and location, special precaution needs to be taken especially in cases involving a battery or an impacted foreign body in the nostril. Although the removal procedure usually can be safely conducted in a clinic, general anaesthesia is sometimes required, especially if the foreign body is corrosive or the child is uncooperative to prevent further complications either from the procedure or the foreign body itself. We present a case of a 2-year-old boy, who presented with persistent nasal discharge of 2 week-duration. A rare type of foreign body which is a metal spring, was found in the right nostril. The spring was successfully removed under general anaesthesia without any local complications.

Keywords: nasal foreign body, nasal discharge, metal spring

Streszczenie Ciała obce w jamie nosowej są częstym zjawiskiem u dzieci i stosunkowo łatwo je usunąć w warunkach ambulatoryjnych. W zależności od rodzaju i umiejscowienia ciała obcego szczególną ostrożność należy zachować wobec baterii lub ciała obcego uwięzionego w nozdrzu. Choć ciało obce można zazwyczaj bezpiecznie usunąć w przychodni, niekiedy konieczne jest zastosowanie znieczulenia, zwłaszcza w przypadku możliwej korozji ciała obcego oraz u pacjentów niewspółpracujących, co ma celu uniknięcie powikłań związanych zarówno z zabiegiem, jak i z samą obecnością ciała obcego. W pracy przedstawiono przypadek 2-letniego chłopca z utrzymującą się od dwóch tygodni obecnością wydzieliny nosowej. W prawym nozdrzu stwierdzono obecność metalowej sprężyny, stanowiącej rzadki rodzaj ciała obcego. Przedmiot z powodzeniem usunięto w warunkach znieczulenia ogólnego, bez powikłań miejscowych.

Słowa kluczowe: ciało obce w jamie nosowej, wydzielina z nosa, metalowa sprężyna

### **INTRODUCTION**

asal impaction of a foreign body (FB) is a common cause of referrals to an otorhinolaryngologist. Following ear FB (44.3%), nasal FB occurs (24.9%) with a 52.9% male predominance<sup>(1,2)</sup>. Nasal FBs are commonly seen in paediatric patients, particularly in the age group 2 to 5 years old<sup>(3)</sup>.

Typical presentation includes foul smelling odour (34.88%), nasal discharge (13.95%), nasal bleeding (4.65%) and nasal obstruction (2.33%). About 27.91% of cases will be reported within 24 hours and 39.53% within 1 week<sup>(4)</sup>.

The technique of FB removal depends on the type of FB, its position, site and cooperation of the patient<sup>(5)</sup>. General anaesthesia may be required if the child is uncooperative or involving impacted FB to avoid serious complications.

## **CASE REPORT**

A 2-year-old boy presented with a history of persistent foul smelling right nasal discharge of 2-week duration. It was associated with scanty intermittent epistaxis on the right side. There was no history of fever, trauma or rhinitis symptoms. On general examination, the child was active; however, yellowish nasal discharge in the right nostril was observed. Anterior rhinoscopy only revealed nasal discharge without any FB in both nostrils. Surprisingly, a lateral skull radiograph demonstrated a spring-like FB in the nasal cavity (Fig. 1). In view of the FB occupying the whole nasal cavity and to avoid possible procedure-related complications, the patient was put under general anaesthesia for proper examination and removal of the foreign body.

Using a 0° 2.7 mm Hopkins scope, a metal spring FB occupying the whole right nostril was found (Fig. 2).



*Fig. 2. Metal spring between inferior turbinate and septum in the right nostril (arrow)* 



Fig. 1. Lateral view skull radiograph showing a FB in the nostril (arrow)

It was removed successfully with very minimal manipulations and without any local complications (Fig. 3).

The patient was discharged in a good condition on the next day after the surgery. The boy was completely asymptomatic on one-week follow up appointment and the anterior rhinoscopy findings were unremarkable.

## DISCUSSION

Insertion of a FB in the nasal cavity is a very common occurrence in children. It is easily diagnosed, but the type of FB varies and the removal can sometimes be difficult, with the risk of complications. It accounts for about 11% of ear, nose, and throat cases, with 22% complicated ones<sup>(6)</sup>. Cases of nasal FB are common in children. Foul-smelling



Fig. 3. A black metal spring

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discharge with nasal obstruction and nasal bleeding are typical symptoms of nasal FB<sup>(4)</sup>. Nasal foreign body is usually located anterior to the middle turbinate or below the inferior turbinate<sup>(6)</sup>.

Early diagnosis is very important to avoid serious complications. Most likely the complications are very much related to the nature of the FB<sup>(7)</sup>. Nasal FBs can be divided into organic or inorganic. Inorganic materials such as beads, buttons, stones, paper or small toy parts are often asymptomatic and easily removed in a clinical setting. However, organic FBs may produce early symptoms due to their tendency to irritate the nasal mucosa<sup>(8)</sup>. Nasal FBs do not usually cause significant morbidity or mortality; however, removal should done as soon as possible to avoid complications such as ulceration, mucosal erosion or rhinolith formation<sup>(5)</sup>.

In order to avoid serious complications and morbidity, removal of nasal FB should be carefully planned and performed by an expert as repeated unsuccessful attempts can cause more harm<sup>(6)</sup>. In the described case, based on the position and the type of nasal FB, the patient was examined and FB was removed under general anaesthesia to avoid any unwanted complications, such as septal perforation or profuse epistaxis. If the metal FB became rusted or released chemical contents, like in the case of a button battery, through washing may have been needed to avoid subsequent tissue reaction.

#### CONCLUSION

This case report demonstrates a classical presentation of nasal FB. Surprisingly, metal springs, like in our case, are very rarely reported in the literature. Early detection of accidental FB impaction, especially by a caretaker, is the key in the management of an impacted FB. Multiple unsuccessful attempts to remove FB in a clinical setting should be avoided to prevent serious complications.

#### **Conflict of interest**

The authors do not declare any financial or personal links to other persons or organisations that could adversely affect the content of this publication or claim rights thereto.

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