CASE REPORT

An unusual nasopharyngeal foreign body with unusual presentation as nasal regurgitation and change in voice

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SUMMARY

Upper aerodigestive tract may harbour foreign bodies such as sponges, grains, toy parts, stones, paper, insects, cotton, etc. These objects may go undetected for days or even weeks. A metallic foreign body after being inhaled and ultimately being lodged in the nasopharynx is a rare entity. We report a case of an unusual nasopharyngeal foreign body (metallic bolt) presenting with symptoms of nasal regurgitation and change in voice in a 2-year boy. The foreign body was diagnosed by X-ray skull lateral view including nasopharynx and was removed under general anaesthesia.

BACKGROUND

Most inhaled foreign bodies pass either into the trachea or the oesophagus.¹ Lodgement of foreign body in the nasopharynx after being inhaled is a rare entity.²⁻³ Though nasal obstruction, snoring, nasal discharge are the most frequent symptoms, unusual presentations such as nasal regurgitation and change in voice can also occur.

CASE PRESENTATION

A 2-year-old boy was referred to us from paediatrics outpatient department with 5-day history of nasal regurgitation and change in voice. Symptoms were sudden in onset and there was no history of fever. The air entry was equal in both the lungs with normal chest X-ray posteroanterior view. On ENT (ear nose throat) examination oral cavity was normal with mild restricted movements and mild bulge of soft palate on the left side. Examination of both the ears was normal. On anterior rhinoscopy, there was mucopurulent discharge in both nasal cavities. The nasal cavity was suctioned using disposable plastic non-traumatic 10 FG catheters to clear the discharge in the nostrils. On repeated examination no abnormality detected in both the nasal cavities. On digital palpation a stony hard object was felt over the soft palate. An X-ray skull lateral view was taken and a radiopaque foreign body was visualised in nasopharynx (figure 1). The patient was planned to remove the foreign body under a controlled situation with a secure lower airway. The child was shifted to operation theatre with the precaution to keep the head in dependent position to avoid accidental dislodgement of foreign body in the larynx. The anaesthetist planned general anaesthesia with oral intubation. After endotracheal intubation, the patient was placed in Rose's position with head extended by

placing a small pillow under the shoulders. The head was supported and stabilised by a rubber ring. A proper size Boyles-Davis mouth gag was introduced and mouth opened. A saline-soaked small ribbon gauge was placed around the endotracheal tube in the oropharynx. After lubricating with xylocaine jelly on the anterior end a red rubber catheter was introduced through the right nostril into the oropharynx and was pulled out of the oral cavity to the outside by a blunt straight artery forceps. The outer as well as inner ends were then pulled upwards to retract the soft palate posteriorly. By doing so the nasopharynx was exposed and the part of the foreign body was visualised, which was grasped using curved artery forceps and was taken out (figure 2). Red rubber catheter and the throat pack were removed. After the recovery from anaesthesia the child was shifted to postoperative room. The postoperative period was uneventful. The patient was discharged after 2 days on oral medications and after 7 days of follow-up the child was perfectly fine with no voice change, nasal regurgitation or difficulty in swallowing.

Figure 1 X-ray skull lateral view showing a radiopaque foreign body in nasopharynx.

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Figure 2 Foreign body after removal.

INVESTIGATIONS

X-ray skull and neck lateral view.

TREATMENT

Removal of the foreign body under a controlled situation with a secure lower airway.

OUTCOME AND FOLLOW-UP

The postoperative period was uneventful. The patient was discharged after 2 days on oral medications and after 7 days of follow-up the child was perfectly fine with no voice change, nasal regurgitation or difficulty in swallowing.

DISCUSSION

Foreign bodies in nasal cavity are very common.⁴ The presence of foreign bodies in the airway depends on its nature, size and locations. Every ENT department faces it every day, but nasopharyngeal foreign bodies are rare and it is difficult even to suspect in the absence of radiopaque foreign body. It is suggested that if swallowed foreign bodies could not be found anywhere, nasopharynx should be examined.^{5 6} Foreign bodies in the nasal cavity and nasopharynx may cause purulent nasal discharge, nasal obstruction, chronic rhino sinusitis, persistent coughing or may remain asymptomatic. Most often nasopharyngeal foreign bodies are accidental findings on radiology, as with the present case. When inhaled, they may lodge in bronchi leading to pneumonia, atelectasis and bronchiectasis, the main complication in late diagnosis.⁶ The history of foreign body inhalation is positive in approximately 70% of cases and of these, only 60% seek medical help within the first 24 h.⁶ If a

foreign body in the upper airway and digestive tract is suspected, endoscopic and radiological examination should be promptly performed. The objective of this case report is to suspect and identify the site of lodged foreign body presenting with abnormal symptoms. A careful history of a sudden onset of nasal regurgitation and change in voice is very informative. Symptoms of change in voice, nasal regurgitation with difficulty in swallowing and clinical signs are very important. A supportive nasopharyngoscopy should be part of the investigation as the suspected nasopharyngeal foreign body may not be radiopaque. In addition to X-ray of the chest, neck with X-ray skull lateral view including nasopharynx is important radiological investigation as X-rays are usually diagnostic for radiopaque foreign bodies.⁷

Learning points

- ▶ Though lodgement of foreign body in the nasopharynx after being inhaled is rare but it should be ruled out.
- ▶ Endoscopic examination of nasal cavity and nasopharynx is must in case of radiolucent foreign bodies.
- ▶ If swallowed foreign bodies could not be found anywhere, nasopharynx should be examined.

Competing interests None.

Patient consent Obtained.

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