



## ORIGINAL RESEARCH PAPER

## Otorhinolaryngology

### ACCIDENTAL INGESTION OF A PUSH PIN WITH SUBSEQUENT NASOPHARYNGEAL LODGEMENT: A RARE CASE REPORT

#### KEY WORDS:

Nasopharyngeal foreign body, Push pin, Adenoid tissue, Diagnostic nasal endoscopy.

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#### ABSTRACT

**Background:** Nasopharyngeal foreign bodies are rare and may be overlooked because of their unusual locations. Sharp metallic foreign bodies lodged in the nasopharynx following accidental ingestion are particularly uncommon. Prompt diagnosis is essential to prevent migration, aspiration, and mucosal injuries. **Case Report:** A 14-year-old boy presented with a history of accidental ingestion of a metallic push pin and persistent foreign body sensation in the throat for six hours. Clinical examination of the oral cavity and oropharynx was unremarkable. Lateral soft-tissue neck radiography revealed a linear radiopaque foreign body in the nasopharyngeal region. Diagnostic nasal endoscopy revealed a metallic pushpin embedded within the adenoid tissue of the nasopharynx. The foreign body was successfully removed under local anesthesia using Blakesley forceps and endoscopic guidance. The postoperative period was uneventful, and the patient remained asymptomatic at follow-up. **Conclusion:** Nasopharyngeal lodgment should be considered in patients with suspected foreign body ingestion when routine examinations fail to identify the object. Diagnostic nasal endoscopy plays a crucial role in the localization and management of this condition. Endoscopic removal under local anesthesia is a safe and effective treatment.

#### INTRODUCTION

Foreign body ingestion<sup>1</sup> is a common otorhinolaryngological emergency. Most ingested foreign bodies are lodged in the oropharynx, hypopharynx, esophagus, or airway. In contrast, nasopharyngeal foreign bodies are extremely uncommon owing to the anatomical orientation of the nasopharynx<sup>5,6</sup> and the normal swallowing mechanism, which directs ingested objects toward the esophagus.

The nasopharynx extends from the skull base to the upper surface of the soft palate. The roof and posterior wall contain the pharyngeal tonsil (adenoids), a component of Waldeyer's ring. In children and adolescents, hypertrophied adenoid tissue may facilitate the entrapment of small foreign bodies. Because of their rarity and atypical presentation, nasopharyngeal foreign bodies may escape detection during routine examinations.

We present a rare case of a push pin impacted within the adenoid tissue following accidental ingestion in an adolescent male, successfully managed by endoscopic removal under local anesthesia.

#### CASE REPORT

A 14-year-old boy presented to the Department of Otorhinolaryngology with a history of accidental ingestion of a metallic push pin approximately six hours before presentation. The patient complained of a persistent foreign body sensation in the throat. There was no history of respiratory distress, dysphagia, odynophagia, epistaxis, nasal obstruction, or change in voice.

Examination of the oral cavity and oropharynx was unremarkable, and no foreign body was visualized.

A lateral soft-tissue radiograph of the neck revealed a linear radiopaque foreign body in the nasopharyngeal region. Diagnostic nasal endoscopy was performed because of the unusual location. Endoscopic examination revealed a metallic pushpin embedded within the adenoid tissue of the nasopharynx.

Following topical nasal decongestion and local anesthesia, the foreign body was carefully grasped using Blakesley forceps and removed under endoscopic guidance. The extracted object was identified as a metallic pushpin measuring approximately 1.5–2 cm. Post-removal endoscopic examination revealed minimal mucosal trauma without active bleeding.

The patient experienced immediate relief of symptoms and remained asymptomatic at follow-up.

#### DISCUSSION

Nasopharyngeal foreign bodies are rare and account for only a small fraction of upper aerodigestive tract foreign bodies. Several mechanisms<sup>2,4</sup> have been proposed, including forceful swallowing, coughing, vomiting, digital manipulation, failed retrieval attempts, and retrograde migration of ingested foreign bodies. Previous reports have described unusual nasopharyngeal foreign bodies, such as metallic bolts<sup>4</sup>, sewing needles, bobbins, safety pins<sup>2</sup>, and decorative metallic objects.

Wadhera et al<sup>2</sup> reported rare cases of a bobbin and safety pin in the nasopharynx. Similarly, Kumar et al<sup>1</sup> described a metallic bolt lodged in the nasopharynx, which was diagnosed radiographically and surgically removed. Recently, Kumar et al<sup>3</sup> reported a sharp metallic logo impacting the nasopharynx of an infant. These reports emphasize the importance of considering the nasopharynx when a foreign body is not identified elsewhere.

The present case is unique because the foreign body was a push pin that became embedded within the adenoid tissue following accidental ingestion. The adenoids<sup>5,6</sup> occupy the roof and posterior wall of the nasopharynx and may serve as a nidus for foreign body entrapment in children and adolescents. This anatomical relationship likely contributed to the retention of the foreign body in our patient.

Radiographic evaluation remains invaluable for detecting radiopaque foreign bodies. Lateral neck radiography was sufficient to localize the object and raise suspicion of nasopharyngeal lodging. Diagnostic nasal endoscopy confirmed the diagnosis and enabled safe retrieval.

Unlike several previously reported cases that required general anesthesia, our patient successfully underwent endoscopic removal under local anesthesia using Blakesley forceps. This avoided the risks associated with general anesthesia and allowed for prompt management.

#### CONCLUSION

Nasopharyngeal foreign bodies should be considered in patients presenting with persistent symptoms following foreign body ingestion, despite negative routine examination findings. The presence of adenoid tissue may facilitate the impaction and retention of sharp foreign bodies in the nasopharynx. Lateral neck radiography and diagnostic nasal endoscopy are valuable diagnostic tools, and endoscopic removal under local anesthesia is a safe and effective treatment modality.

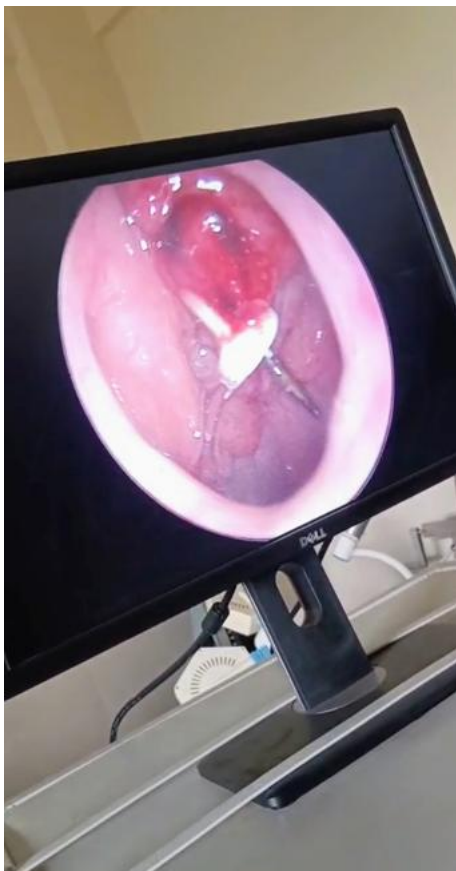
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**Ethical approval:** Not required. Written informed consent for publication was obtained from the patient's parent/guardian.



**Figure 1. Lateral soft-tissue neck radiograph demonstrating a radiopaque foreign body projected over the nasopharyngeal region.**



**Figure 2. Diagnostic nasal endoscopic image showing a metallic pushpin embedded within the adenoid tissue in the nasopharynx.**



**Figure 3. A metallic push pin was retrieved following successful endoscopic removal using Blakesley forceps under local anesthesia**

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