

ACUTE OESOPHAGEAL DENTURE IMPACTION: A CASE REPORT

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ABSTRACT

INTRODUCTION

Esophageal foreign bodies (EFBs) in adults are common emergencies, with sharp objects such as dentures posing a high risk of complications including perforation, mediastinitis, and bleeding.

METHODS

We report a case of a 48-year-old male who presented with acute throat pain following accidental denture ingestion. Radiographic evaluation identified a radiopaque foreign body at the C7–T1 level.

RESULTS

The foreign body, consisting of a denture with metallic hooks, was successfully removed endoscopically under general anaesthesia. Postoperatively, the patient developed transient left vocal cord paresis, which resolved with conservative management.

CONCLUSION

This case emphasizes the importance of careful airway and laryngeal assessment after removal of sharp esophageal foreign bodies, even in patients with stable initial presentation.

KEYWORDS

esophageal foreign body, denture, vocal cord palsy, recurrent laryngeal nerve injury, elderly,

foreign body.

INTRODUCTION

Oesophageal foreign bodies (EFBs) are a common otolaryngologic emergency, commonly reported in children, the elderly, and psychiatric patients. Most common foreign bodies constitute food boluses, bone pieces, batteries, and dentures; with dentures representing a particularly hazardous subgroup because of their sharp edges and metallic components (1,2). Delay in diagnosis or complications during removal can result in perforation or mediastinitis. This report describes an acutely ingested denture impacted at the cricopharynx, complicated by transient unilateral vocal cord paresis after endoscopic removal.

CASE REPORT

A 48-year-old male presented to the emergency department with acute throat pain following accidental ingestion of dentures 4 hours back, and no history of difficulty in breathing or swallowing or chest pain. He was non-hypertensive, non-diabetic, with a history of bidi smoking for the last 29 years. On examination, he was otherwise unremarkable, with no dyspnoea or cyanosis. Vitals were normal.

Endoscopic laryngeal examination revealed normal vocal cord mobility, pooling of secretions

in the pyriform fossa; however foreign body could not be visualised. Plain radiographs of the neck and chest showed a foreign body in the esophagus with two metallic hooks, one projected at C7 and the other at T1, respectively, as shown below. As the patient was vitally stable with no acute distress signs, the patient was posted for endoscopic removal under general anaesthesia after completion of a 6-hour fasting period.

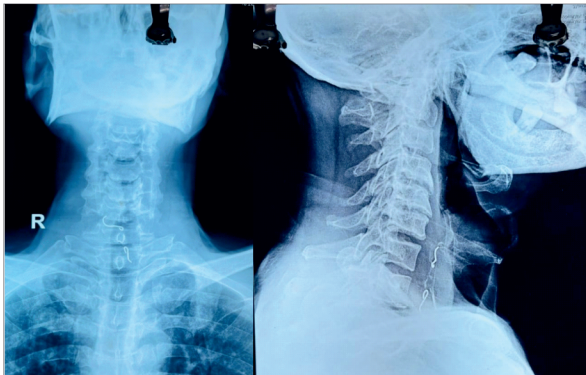


Figure 1: X-ray neck AP and Lateral showing an impacted foreign body with two metallic hooks at C7 and T1, respectively

The foreign body, which was found to be dentures for upper central incisors (as shown in Figure 2), was removed successfully without apparent mucosal injury, and the patient had an unremarkable recovery. However, on postoperative day 1, he developed left vocal cord paresis, for which he was prescribed oral steroids and vocal cord exercises. There were



Figure 2: retrieved foreign body with one projected hook and the other hook embedded in the implant

no radiological or clinical features suggestive of oesophageal perforation or mediastinitis. At the 6-week follow-up, repeat laryngoscopy demonstrated that the patient had recovered well with bilateral vocal cord movements.

DISCUSSION

Denture impaction in the esophagus is well-recognised in adults and the elderly, and is associated with a higher risk of complications than smooth foreign bodies due to sharp clasps and prolonged impaction. Large retrospective series have highlighted that sharp or irregular EFBs, including dentures, are more likely to cause mucosal ulceration, laceration, perforation, or severe complications, particularly in older patients with comorbidities (2,4). Although the present patient was relatively young and clinically stable, the presence of metallic hooks at C7–T1 warranted urgent endoscopic removal.

Studies show that most sharp EFBs can be managed successfully with endoscopy, with surgery reserved for patients presenting late, with perforation, abscess, or significant esophageal pathology (1, 3). Wu et al. and Nadir et al. reported high success rates with esophagoscopy and low complication rates in adult EFBs when intervention was not unduly delayed, supporting early therapeutic endoscopy as the mainstay of treatment (4,5). Similarly, Lin et al. and Velasco et al. demonstrated that flexible endoscopy is safe and effective in elderly patients, although advanced age, comorbidities, and delayed presentation correlate with worse outcomes (1,2). The current case aligns with this evidence, as timely rigid esophagoscopy permitted

complete denture removal without perforation or mediastinal complication.

A distinctive feature of this case is the development of transient unilateral vocal cord paresis following the removal of an acutely impacted denture. Recurrent laryngeal nerve injury has been described in association with chronically retained dentures, with bilateral vocal cord palsy attributed to longstanding pressure and inflammation at the cervicothoracic esophagus (6). In contrast, the acute and reversible paresis in this patient likely reflects neuropraxia from intraoperative traction, local edema, or direct compression during esophagoscopy rather than chronic inflammatory damage (6,7). This highlights the importance of routine pre- and postoperative laryngeal examination in all esophageal denture cases, even when airway symptoms are minimal. Early detection of vocal cord dysfunction allows appropriate counselling, initiation of voice therapy, and differentiation from more serious complications such as deep neck infection or mediastinitis (3,7,8). Overall, this case reinforces existing evidence that prompt endoscopic management of sharp EFBs is effective, while also drawing attention to transient laryngeal nerve dysfunction as a rare but clinically relevant complication of esophageal denture impaction and its treatment.

CONCLUSION

Denture impaction in the upper esophagus, even with short symptom duration and minimal complaints, should be considered potentially high risk because of its sharp components and proximity to the recurrent laryngeal nerves. Prompt endoscopic removal, followed by systematic postoperative laryngeal examination, enables early detection of transient vocal cord paresis and facilitates conservative management with an excellent

functional outcome.

Authors Declarations

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Consent to Participate: Obtained

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