CASE REPORT

Catch me if you can: migrating oesophageal foreign body

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SUMMARY

Foreign bodies of the cervical oesophagus are a common reason for presentation to the emergency department. In rare instances, the foreign body may move completely through the oesophageal lumen such that it is unable to be visualised during endoscopy. Subsequent imaging may show the foreign body within the cervical soft tissue. This rare complication is known as a migrating oesophageal foreign body. We present the case of a 56-year-old woman who accidentally ingested a wire which became lodged in the proximal oesophagus. Subsequent to initial imaging the wire migrated completely through the oesophageal lumen such that it was unable to be visualised during endoscopy, ultimately requiring open neck exploration for removal.

BACKGROUND

Foreign bodies of the cervical oesophagus are a common reason for presentation to the emergency department. Most foreign bodies pass with conservative management or are removed without complication with endoscopy. In rare instances, the foreign body may move completely through the oesophageal lumen such that it is unable to be visualised during endoscopy. Subsequent imaging may show the foreign body within the cervical soft tissue. This is known as a migrating foreign body.

CASE PRESENTATION

A 56-year-old woman presented to the emergency department with dysphagia and the sensation of a foreign body in the cervical oesophagus following a meal of barbequed chicken. Examination was unremarkable—she was in no respiratory distress, she was able to swallow her secretions and there was no palpable abnormality of the thyroid or cervical soft tissue. Soft tissue cervical films were obtained which demonstrated a 2 cm foreign body lying transversely within the oesophagus at the level of the thyroid ([figure 1](#)).

Further history revealed that the barbeque had been cleaned with a wire brush prior to use and given the radiographic appearance we surmised that this was the origin of the foreign body. Owing to concern that the tip of the foreign body had perforated the oesophageal lumen and because of the horizontal lie of the wire, CT was obtained. This confirmed our suspicions demonstrating the wire with horizontal lie and the right-sided tip having perforated the oesophageal lumen. Because of this complexity and the possible requirement of neck exploration we transferred the patient to a tertiary

Figure 1 Anteroposterior soft tissue cervical X-ray demonstrating the foreign body in horizontal orientation within the cervical oesophagus. We were suspicious that the right lateral aspect had perforated the lumen.

referral centre with the appropriate resources rather than attempt endoscopic removal at our centre.

TREATMENT

The following day she was taken for flexible endoscopy; however, this was unremarkable and the wire was not identified. Repeat CT was undertaken which demonstrated the wire located posterior to the right lobe of the thyroid having migrated from the lumen of the oesophagus ([figure 2](#)). Subsequently she was taken to the theatre for open neck exploration at which the wire was found posterior to the right lobe of the thyroid having migrated completely from the oesophageal lumen.

OUTCOME AND FOLLOW-UP

A small bore drain was left and removed day 1 following her operation. She received 48 h of intravenous antibiotics and her recovery was uneventful.

DISCUSSION

Extraluminal migration is an extremely rare and potentially life-threatening complication of

Figure 2 CT following normal endoscopy showing the foreign body having migrated through the oesophageal lumen and now lying inferior to the right lobe of the thyroid.

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oesophageal foreign body. Remsen *et al*¹ reported on a series of 321 cases of oesophageal perforation due to foreign bodies and found that only 43 had migrated extraluminally. Sharp and long foreign bodies such as needles, wire and bones are most frequently implicated in cases of perforation.² Perforating or migrating foreign bodies may remain asymptomatic but have the potential to cause life-threatening suppurative and vascular complications.¹

Learning points

- ▶ Extraluminal migration is a rare complication of perforating oesophageal foreign bodies.
- ▶ If initial imaging confirms a perforating foreign body, migration should be suspected if endoscopy is normal.
- ▶ Sharp foreign bodies in transverse orientation are at higher risk of perforation and migration.
- ▶ Endoscopic removal is time critical and migration can occur within hours making removal difficult.

Endoscopic removal is the mainstay of treatment for intraluminal perforating foreign bodies³ whereas extraluminal foreign bodies require open neck exploration. The morbidity associated with open neck exploration is higher than endoscopic removal and for this reason in cases where the object has perforated the lumen but not migrated extraluminally the endoscopic approach is preferred. Though the risk of migration of a perforating foreign body is low, migration can occur within hours making removal significantly more complicated and exposing the patient to additional risks.

Competing interests None.

Patient consent Obtained.

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