

## Foreign body in the throat migrating through the common carotid artery

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### Abstract

We present a 55-year-old lady who swallowed a 3 cm pointed metal foreign body whilst eating a sardine salad. The foreign body migrated from the hypopharynx through the parapharyngeal space and traversed the common carotid artery over a period of 12 days. The foreign body was removed by exploration of the neck.

**Key words:** Foreign body; Metal; Neck

### Introduction

Foreign body in the throat is a common emergency in ear, nose and throat practice. Fish bones are the commonest foreign body in adults (Lannigan *et al.*, 1988). Migration of the foreign body from the throat to the subcutaneous tissues of the neck is very rare (Gertner *et al.*, 1991). Fish bones have been reported to migrate to the thyroid gland and removed by thyroid lobectomy (Al-Muhanna *et al.*, 1990). Spontaneous expulsion through the skin has also been reported (Gertner *et al.*, 1991). To our knowledge, there has been no report of a foreign body migrating from the throat which traversed the common carotid artery in the English Literature. We present a case of a metal foreign body which migrated from the throat, through the parapharyngeal space and traversed the right common carotid artery.

### Case report

A 55-year-old housewife was referred to the ear, nose and throat clinic with a history of swallowing a fish bone whilst eating a sardine salad 12 days earlier. The supposed fish bone became stuck in her throat and an attempt to expel the 'fish bone' by putting her fingers in her throat was unsuccessful. Her husband found her spitting out blood and took her to the Accident and Emergency Department. However, her symptoms settled before she was seen by the Casualty Medical Officer and she was reassured and discharged home with antibiotics without an X-ray being performed. Subsequently her symptoms returned with a persistently painful swallow and she could only tolerate soup and fluids. She reported to her General Practitioner who requested a lateral neck X-ray (Figure 1) without the antero-posterior view and subsequently referred her to the ear, nose and throat clinic on the 12th day after the original incident. Past medical history revealed that she had been knocked down by a car three years previously but she denied any history of a penetrating injury. (X-ray of the neck taken at the time of the accident did not show any foreign body

in the neck.) External examination of the neck revealed no abnormality, no bruit was heard on auscultation. Indirect laryngoscopy showed normal vocal folds and



FIG. 1

Lateral radiograph of the neck showing the metallic foreign body at the level of fourth cervical vertebra.

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FIG. 2

Antero-posterior radiographs showing the metallic foreign body in the soft tissue of the right side of the neck.

oedematous arytenoids, there was no pooling of saliva and no foreign body seen.

She was admitted to the ward and an urgent hypopharyngoscopy under general anaesthesia was performed. This showed a smooth bulge in the lateral wall of the right pyriform fossa and oedema of the right arytenoid and aryepiglottic fold. There was no evidence of a foreign body in the hypopharynx and therefore endoscopy was discontinued. X-ray in the lateral and anterior position of the neck was performed and these showed that the foreign body had not moved from its original position but was in the soft tissue of the neck (Figure 2). A computed



FIG. 3

CT scan showing the metallic foreign body in parapharyngeal space in the vicinity of the right common carotid artery.

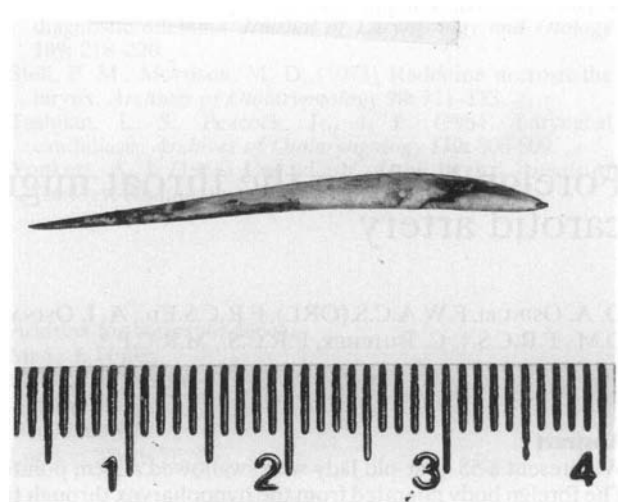


FIG. 4

Showing 3 cm foreign body removed by exploration of the neck.

tomography (CT) scan showed a 3 cm × 0.5 cm foreign body of metallic density in the parapharyngeal space in the vicinity of the right common carotid artery (Figure 3). Emergency exploration of the neck was performed through an oblique incision along the anterior border of the right sternomastoid muscle. The common carotid artery was controlled below and the internal and external carotid arteries controlled above the foreign body by silicone slings. The metal splinter was found to have entered the medial aspect of the common carotid artery 2 cm below the bifurcation and was surrounded by a moderate inflammatory reaction. It was withdrawn from the artery along its presumed course of entry and haemostasis was achieved by light compression. She made satisfactory progress post-operatively and was discharged home without any residual effects of the foreign body or the operation itself.

### Discussion

Foreign body in the throat is very common in ear, nose and throat practice. Migration into the parapharyngeal space of the soft tissues of the neck have been reported albeit rarely (Lannigan *et al.*, 1988; Al-Muhanna *et al.*, 1990; Gertner *et al.*, 1990). Movement of neck muscles and viscera have been said to assist in their migration through neck structures. They reveal themselves weeks or months later by causing symptoms in the anatomical area where they finally settle. In this case, the patient had pain in the right side of the neck and we believe that the forceful attempts by the patient at expelling the foreign body with her fingers assisted rapid migration of this foreign body from the pharynx through the parapharyngeal space and finally lodging across the right common carotid artery.

There is an urgent need to remove foreign bodies of this nature (Figure 4) because of potential risk of erosion of the common carotid artery causing massive haemorrhage, false aneurysm or arterio-venous fistula during its migration through the neck.

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#### References

- Al-Muhanna, A., Abu Chra, K. A., Dashti, H., Behbehani, A., Al-Naqeeb, N. (1990) Thyroid lobectomy for the removal of a fish bone. *Journal of Laryngology and Otology* **104**: 511–512.
- Gertner, R., Bar'el, E., Fradis, M., Podoshin, L. (1991) Unusual complication of an ingested foreign body. *Journal of Laryngology and Otology* **105**: 146–147.
- Lannigan, F. J., Newbegin, C. J. R., Terry, R. M. (1988) An unusual subcutaneous neck lump. *Journal of Laryngology and Otology* **102**: 385–386.

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