

Transient ischaemic attack caused by an ingested stingray barb

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A 76-year-old woman reported a fishbone stuck in her throat, but no foreign body was identified. Eight weeks later, she experienced a transient ischaemic attack, and a stingray barb was subsequently removed from the right common carotid artery. To our knowledge, this is the first report of the migration of an ingested stingray barb. (MJA 2008; 189: 668-669)

Clinical record

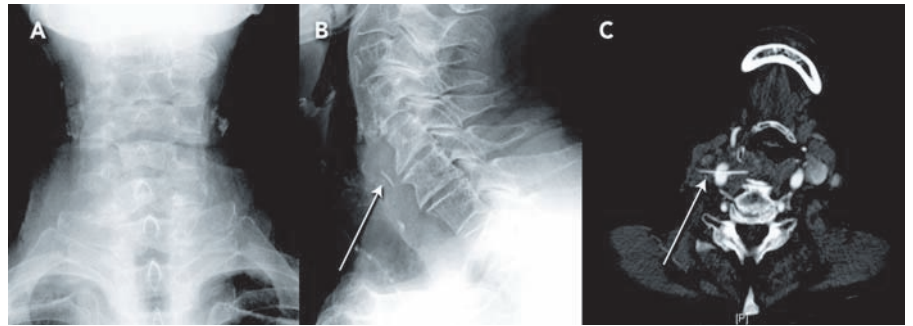
While holidaying in Queensland, a 76-year-old woman presented to an emergency department, reporting a fishbone stuck in her throat after a meal of snapper. A neck x-ray showed a vague 1 cm linear opacity. She was referred to an ear, nose and throat surgeon who performed a laryngoscopy and rigid oesophagoscopy under general anaesthesia. This revealed bruising to the right hypopharynx without mucosal trauma, but no foreign body was identified. The patient was discharged the following day, and subsequently returned home to Victoria.

Two weeks later, the patient presented to her local doctor with ongoing dysphagia. A repeat x-ray of her neck showed a linear area of calcification of up to 1 cm in length on the lateral film among patchy areas of calcification in the thyroid cartilage and carotid bifurcations (Box 1, A and B). No further action was taken. Six weeks later, the patient re-presented reporting transient left facial droop, left arm weakness and paraesthesia that resolved completely after 10 minutes. She also reported persistent dysphagia, a painful lump on the right side of her neck, and weight loss of 5 kg since her trip to Queensland. An urgent carotid duplex ultrasound examination revealed a linear foreign body traversing the right common carotid artery, 2 cm proximal to its bifurcation.

The patient was transferred to our hospital. She was fit and her only comorbidities were hypertension, hypercholesterolaemia and anxiety disorder. On examination, she had raised blood pressure (165/70 mmHg) and was in sinus rhythm. There was a palpable mass in the right anterior triangle of the neck, with no audible bruit. Neurological examination was unremarkable. A computed tomography scan with intravenous contrast medium confirmed the presence of a 34 mm linear foreign body traversing the right common carotid artery, with a surrounding soft tissue mass consistent with a haematoma. There was no extravasation of contrast medium (Box 1, C). A small filling defect, consistent with an adherent thrombus, was noted on the intravascular segment of the foreign body.

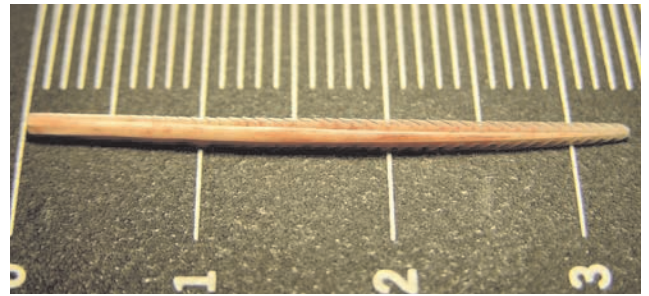
The patient underwent exploratory surgery with awake, regional anaesthesia, which permitted continuous neurological monitoring. This enabled safe distal cross-clamping of the internal and external carotid arteries and proximal cross-clamping of the common carotid artery before the foreign body and the traumatised carotid artery were manipulated. A 1 cm segment of the right common carotid artery (which was 2 cm proximal to the carotid bifurcation

1 Radiographic findings from a patient who ingested a stingray barb



A,B: X-rays 2 weeks after the patient reported a fishbone stuck in her throat, showing linear area of calcification in the lateral film (arrow). **C:** Computed tomography scan after the patient experienced a transient ischaemic attack, showing linear foreign body (arrow). ◆

2 Stingray barb removed from common carotid artery



and included the foreign body) was resected and an end-to-end anastomosis with 6-0 Prolene (Ethicon, Piscataway, NJ, USA) was carried out. The foreign body was subsequently identified as a stingray barb (Box 2). There was no neurological compromise during or after the surgery. A Gastrografin (Bayer AG, Berlin, Germany) swallow fluoroscopy study undertaken 1 day after surgery showed no leak of contrast from the pharynx. The patient was discharged 4 days after the surgery, had recovered by 6-week follow-up, and was well at a 12-month review.

Discussion

Foreign bodies that migrate from the pharynx and oesophagus into the neck are often reported,¹⁻⁷ most common among adults are fishbones.^{1,2} To our knowledge, this is the first report of the migration of an ingested stingray barb. The harpoon-like structure of the barb facilitates its migration in one direction, similar to observations in cases of migrating saw-toothed fishbones.³ Sting-

ray injuries are common in tropical regions of Australia,⁸ envenomation is a concern in acute injuries, due to the necrotising properties of the venom, and pseudoaneurysm of the superficial femoral artery is a reported complication of this.⁹ It is not surprising that envenomation did not occur in our patient, as the stingray barb may have been lodged in the snapper for some time, and any remaining venom was probably destroyed during cooking.

Previously reported cases of foreign bodies migrating into the common carotid artery were not associated with an ischaemic cerebrovascular event.⁴⁻⁶ In a case reported in 1958, the foreign body (a needle) was extracted directly by endoscopy,⁴ two other cases required open exploration and cross-clamping of carotid arteries.^{5,6}

Ingested foreign bodies that migrate outside the pharynx and oesophagus are difficult clinical scenarios to diagnose. Migration may occur within 24 hours of injury.¹ Investigation usually begins with an x-ray to locate the foreign body, but this is not entirely sensitive, even for fish bones.² Although stingray barbs have been reported to be radio-opaque on x-ray,¹⁰ they may not be detected as stingray skeletons are cartilaginous and the spine contains vasodentine.¹¹ In our patient, the stingray barb was visualised as a radio-opaque body in the x-ray, but the findings were uncertain because of calcification in the thyroid gland and carotid arteries. When a foreign body is seen on x-ray, an oesophagoscopy showing oedema, bruising or abrasion should raise suspicion of a migrating foreign body.⁷ Computed tomography is the investigation of choice, and should be performed as soon as possible to prevent catastrophic complications of migration into structures of the neck.^{1,2}

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Competing interests

None identified.

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