

Saw-toothed fish bone ingestion: A method for propulsion

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Summary

We describe the case of an 11-year-old girl who presented with a lump in her neck. On exploration a 4 cm saw-toothed fish bone was extracted from the soft tissue of the anterior triangle of the neck.

Ingested fish bones are a common presentation in accident and emergency departments, but there are only a small number of reports of migration through the pharynx into soft tissues. Rare complications can include oesophageal perforation, haematoma formation, retropharyngeal abscesses and recurrent infections. To the best of our knowledge this is the first reported case of migration of an ingested fish bone in Malawi.

Case report

An 11-year-old girl presented at our department with a swelling in the anterior triangle of the neck. She had first noticed it 9 days previously, and she denied any pain, discharge or changes in size of the swelling. She was otherwise well with no significant past medical history. Interestingly, on further questioning she reported having swallowed a fish bone 2½ weeks earlier. This had caused severe pain, but after the pain subsided she was able to continue eating with no further problems.

On examination she was a well-looking, well-nourished child with normal haemodynamic parameters. She had a small (1×1 cm), firm, non-tender lump at the anterior border of the right sternocleidomastoid muscle, at the junction of its upper third and lower two-thirds. It was relatively immobile and gave the impression of extending deeper. The skin moved over it easily and there were no skin changes or warmth.

Our differential diagnoses included branchial arch remnant, cervical rib, lymph node or ingested migrated fish bone. However, the swelling was considered to be too anterior for a cervical rib, and she was at the upper end of the age group in which we would have expected a branchial arch remnant to present.

A lateral cervical radiograph was performed and was unremarkable.

The patient was taken to theatre for exploration, where a 4 cm saw-toothed fish bone (Fig. 1) was discovered just beneath



Fig. 1. Posteriorly angled spinous processes.

the skin, protruding from under the anterior border of the right sternocleidomastoid muscle. The wound was washed out and sutured. She made an uneventful postoperative recovery and was discharged home the following day.

Discussion

Although ingested fish bones are a relatively common presentation to accident and emergency departments, migration of the bone through the pharynx is a rare complication. Most reports are from East Asia and South Korea, where fish are commonly consumed.^{1,2}

This report emphasises the importance of proper history taking in the diagnosis of ingestion of foreign bodies. If a patient reports having ingested a foreign body, the clinician must maintain a high index of suspicion and should endeavour to obtain a full history.

Complications of migration include oesophageal perforation, retropharyngeal abscess formation, chronic infections and haematoma formation. Occasionally the bone may migrate through the tissues, causing no damage.³

Lake Malawi provides a source of fish for many of the people who live along its shores. Our patient described the fish as a *nkholokolo*, which is thought to be a local name for *Synodontis njassae*.⁴ We believe that the saw-toothed spine enabled propulsion of the bone through the tissues in one direction only. With the spike at the end the tissues could be pierced easily, and as the soft tissues moved around the bone it could be pushed forwards but was unable to move backwards because of the posteriorly angled spines.

A computed tomography scan is often recommended for investigation of possible fish bone ingestion if the examination and plain radiograph are unhelpful.^{5,6} However, because of

the superficial location of the lump and the clear history from the patient and her guardian in our case, we did not feel it was necessary to investigate further prior to exploration.

Conclusion

This report emphasises the importance of proper history taking in the diagnosis of ingestion of foreign bodies. To the best of our knowledge this is the first reported case of migration of an ingested fish bone in Malawi.

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