

CASE REPORT

Hidden Bone in Prevertebral Space

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ABSTRACT

A 60-year-old lady presented with pain in the throat and odynophagia post-ingestion of fishbone 5 days ago. A computed tomography scan showed linear opacity resembling a fishbone in the prevertebral space. Direct laryngoscopy and esophagoscope revealed only slough and neck exploration showed fishbone in the prevertebral space. Early removal of the fishbone avoided fatal complications.

Keywords: Case report, Fishbone, Migratory, Prevertebral.

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INTRODUCTION

Fishbone is among the most common foreign body ingested that will cause patients to seek medical attention. This is due to the nature of the fishbone, which is usually small and sharp, further enabling its ability to lodge in the aerodigestive tract. Although accidentally ingesting fishbone is common, only a small percentage will end up needing medical attention. Out of all that came for treatment, the majority of fishbone can be easily found in the oropharynx, larynx, or esophagus. Only a small minority of cases presented with the migration of fishbone extraluminally. If the diagnosis is delayed, fishbone perforation may present with life-threatening complications such as mediastinal abscess, prevertebral abscess, destruction of vertebrae and spine, and will even lead to death.

CASE DESCRIPTION

A 60-year-old lady presented with a complaint of fishbone ingestion 5 days ago. Post-ingestion felt a sharp pain in the throat and had odynophagia onwards. She also complains of persistent neck pain at the posterior and lateral sides, which was sharp in nature and associated with an upper back pain between the scapulars. She decided to seek medical attention when her symptoms persisted. On examination, her oral cavity was clear of any foreign body or pathology. A flexible nasopharyngolaryngoscopy done at the otorhinolaryngology clinic noted no pooling of saliva at the pyriform fossa and no fishbone was noted. A cervical X-ray was done showing a bulge at the posterior pharyngeal wall.

She was later admitted and a computed tomography (CT) scan of the neck showed a linear hypodense foreign body seen in the retropharyngeal space (at the level C7 vertebral body) with inflammatory changes and possible early abscess formation as seen and described in Figure 1. An emergency direct laryngoscopy, esophagoscopy, and neck exploration was done.

Rigid esophagoscopy revealed slough at 7 o'clock, 20 cm from the upper incisors but no obvious foreign body was seen. Neck exploration via a transcervical approach was done where the bulging area at the prevertebral muscle was identified, no fishbone was seen, and protruding sharp edges were felt. A linear incision was made approximately at that area where the suspected fishbone was seen in the CT scan. A fishbone was seen completely hidden in the

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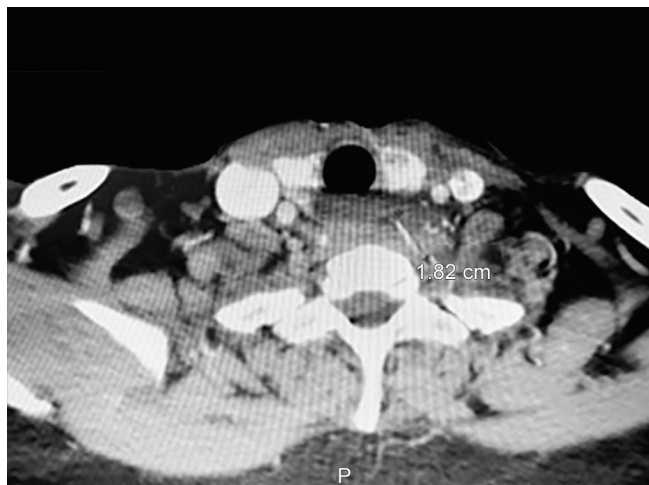


Fig. 1: Shows an axial view of CT showing linear opacity of 1.82 cm in length which may represent a fishbone. The hypodense area surrounding the opacity may represent inflammatory and abscess formation

prevertebral space (Fig. 2). There were no pus or slough noted. The fishbone was removed in total and it was measured 2 cm in length (Fig. 3). The length of the fishbone correlates with the measurement from the CT scan. Another prevertebral area was palpated to make

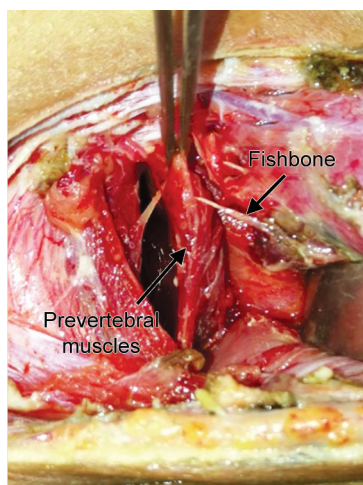


Fig. 2: Showing fishbone in relation to prevertebral muscle

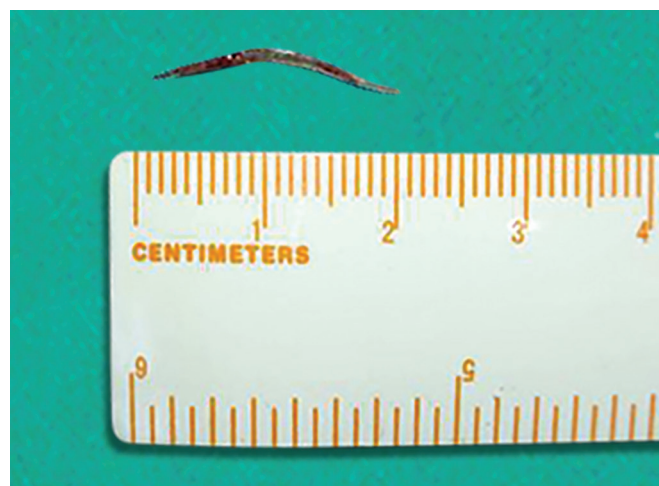


Fig. 3: Shows fishbone measuring 2 cm in length post-removal

sure no fishbone was left behind and no sharp projection was felt. The wound was cleaned and closed.

Postoperatively, the patient no longer complains of sharp pain or odynophagia. She was able to tolerate orally well without any complaint.

DISCUSSION

Fishbone ingestion is a common occurrence, especially in countries with high consumption of fish. In our case, the patient presented with a history of fishbone ingestion for a few days. Some patients may come with a history of fishbone ingestion up to 6 months ago.¹ In cases where the patient denies any ingestion of fishbone, further history must be taken from friends or families, any history of eating fish is also important even if no sensation of pain is noted post-ingestion.² The history given was typical of a case of a fishbone in the aerodigestive tract. Although initial examination in the clinic was unable to locate any fishbone intraluminally, the patient was admitted for further investigation. Computed tomography scan is a reliable method of diagnosing impacted fishbone, thus the patient was admitted and posted for a CT scan. Jamal et al. reported a rare case of spontaneous extrusion of fishbone while awaiting a CT scan.³

Presentation of impacted fish bone usually will come with a typical history. During the examination, even if no fishbone was found, a follow-up is good for reassessment. This is because there it may present with swelling and inflammation in the neck that was caused by the foreign body and can be mistaken for a lymph node swelling or a neck lump.^{4,5} Some fish bones may migrate and pierce the common carotid artery or cause deep neck abscesses as reported by Johari et al.⁶ If untreated, life-threatening complications may occur.

In some cases, a fishbone may be found impacted on the esophageal wall, requiring a careful esophagoscopy to detect. Any ulcer noted during the esophagoscopy must be carefully examined so that no impacted fish bones are missed. If found, this can be removed using biopsy forceps for small-size bone.⁷ In our case, the slough was noted 20 cm from the upper incisor upon rigid esophagoscopy, but no fishbone was found. Thus, a decision to proceed with neck exploration was made.

Most cases of migrating fishbone were removed under general anesthesia with neck exploration. A careful study of the location of the fishbone prior is warranted. In our case, a transcervical approach was chosen due to the location of the fishbone as seen and reported from the CT scan. A 3D reconstruction of the CT scan will provide a better viewing if available, and skin marking can be done before exploration.⁸ However, this was not done as a bulging prevertebral muscle area was seen on exploration, and a fishbone was subsequently identified.

Less than 5 cases of fishbone in prevertebral space are reported to date. There has not been any report of fishbone completely hidden in the prevertebral space and not seen during esophagoscopy that warrants a neck exploration. Ngui et al. reported a case of fishbone seen during esophagoscopy but was lost during manipulation which later was found deeply embedded in prevertebral space and was removed with neck exploration.⁹ In our case, no pus or slough was seen during exploration which was a good sign indicating abscess has not yet formed. A prevertebral abscess may lead to the destruction of the spine and vertebra which may be fatal.

CONCLUSION

Fishbone ingestion is a common presentation, especially in countries where consuming fish is common. A good history taking and a high index of suspicion help in diagnosing. This can be further helped by examination and investigation that will effectively treat the patient before further complications set in. A hidden fishbone must be explored and removed, based on the CT scan findings, and must not be abandoned which will be fatal.

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