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Case Report Ingested Fish Bone Migration In The Neck: A Case Report

Pankaj Kumar[1], Pallika Kumar[2],GyanRanjan Singh[3]
([1]Specialist& HOD in Department of Otorhinolaryngology in Dr Baba SahebAmbedkar Medical College& Hospital,[2]Senior Resident in Department of Otorhinolaryngology in Dr Baba SahebAmbedkar Medical College & Hospital, [3]Medical officer in Department of Otorhinolaryngology VMMC &Safdarjung Hospital)
Corresponding Address: Dr. Pankaj Kumar

Abstract: *Ingested foreign bodies commonly get impacted in the upper aero-digestive tract; few of these have perforated the tract wall, and smaller number of these migrated extralumenly. Few cases were reported where foreign body exits through the skin of neck. We report a rare case of fish bone that migrated extralumenly without harming the nearby blood vessels and nerves. A detailed history and clinico-radiographic investigation helped us to locate fish bone and aided in its removal by transcervical approach. Our case report would help to increase the awareness of these rare but potentially lethal conditions.*

Keywords: *Foreign bodies, neck,X ray soft tissue neck, Computed tomography (CT)*

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I. Introduction

Foreign body ingestion is a common problem presenting to otolaryngologist. Presenting symptoms vary from none to foreign body sensation, odynophagia, dysphagia, drooling, chest pain, neck pain, or sensation of choking.[1] Fish bones constitute more than 85% of all ingested foreign bodies.[2] Common sites of impaction being palatine tonsils, base of tongue, vallecula and pyriform sinus.[3]The penetration of the foreign bodies extra-luminally from the upper digestive tract and their migration to surrounding structures is a rare condition. The ingestion of foreign body has caused gastrointestinal perforation in less than one percent of investigated patients[4]. Herein, we report a rare case presentation of fish bone that migrated extralumenly without harming nearby blood vessels and nerves and was found latent in right side of neck nearing extrusion through the skin. Fish bone was precisely located and removed by transcervical approach.

II. Case Report

A 48 year old female patient presented with complaints of pain and difficulty on swallowing with history of accidental ingestion of fish bone four days back. X-ray soft tissue neck showed radio-opaque shadow suggestive of foreign body opposite C4 vertebrae with features of retropharyngeal abscess. She was treated conservatively with intravenous antibiotics. After three days of treatment pain on swallowing subsided and she was able take food orally. Repeat X-ray of soft tissue neck showed no features of foreign body or retropharyngeal abscess. Patient was discharged with advice for follow-up after one week. Patient was asymptomatic on follow-up. After three months of asymptomatic period, patient came back with complaints of pain and swelling in upper part of right lateral neck. There was no problem on swallowing. Examination revealed a subcutaneous swelling with tenderness in right lateral neck at the posterior border of sternocleidomastoid muscle approximately at junction of upper one-third and lower two-third. She was treated with oral antibiotics on OPD basis. After one week, swelling was not seen on inspection. On deep palpation a small firm to hard pointed object was felt beneath the intact skin. Indirect laryngoscopy and 70º endoscopic examination of upper aerodigestive tract were normal. Ultrasound of the neck showed linear echogenic elongated structure extending from muscular plane to deeper structure with medial end just 6mm away from common carotid artery. The lateral end was about 3 mm deep to skin surface.

CT scan of neck revealed a linear hypodense foreign body measuring 2.5 cm lying obliquely on right side of neck at the level of hyoid bone, just behind right internal jugular vein, passing laterally towards medial aspect of posterior border of sternocleidomastoid muscle (Fig 1).

The patient underwent a neck exploration under general anaesthesia. A right lateral neck incision was made along a skin crease after marking lateral end of foreign body. Skin flaps were raised. Foreign body was identified (Fig 2). Care was taken while removing foreign body not to injure the nearby vessels as it was very close to the carotid sheath. Wound was closed in two layers. Recovery was uneventful. The patient was discharged on the 4th postoperative day. Further follow-up examinations were normal.

III. Discussion

Fish bones account for the commonest ingested foreign bodies in eastern and coastal regions of India.[5] Fish bones typically lodge in the tonsils or base of the tongue. Other sites of impaction include the vallecula, pyriform fossa, epiglottis, cricopharyngeus, and oesophagus. Rarely the foreign bodies may penetrate the wall of the digestive tract and migrate in the lateral neck.[3]Remson K et al reported that out of 321 cases of penetrating foreign bodies, 43 of them migrated extraluninal. Foreign bodies that are sharper and horizontally oriented have a higher chance of penetrating the wall of aerodigestive tract.[6]In our case, it was assumed that the foreign body became impacted in the right pyriform fossa and migration occurred thereafter.Possible mechanisms may include strong oesophageal peristaltic movements against the foreign body, tissue reaction to the foreign body as well as infection and abscess formation.Secondly complex muscular movement of neck, might have generated some expanding pressure and directed the sharp foreign body to move outward slowly toward the skin surface.[7]

Routine X-ray investigation of neck and thorax forms the initial modality for diagnosis of ingested foreign bodies. Metallic foreign bodies like coins and well mineralized foreign bodies can be easily observed on the X-ray films. Partially mineralized foreign bodies require further investigations.[8]CT scan studies give more information in such cases. In cases of foreign body migration, CT scan remains the investigation of choice to identify the exact location of migrated foreign bodies and their relationship to the vital structures of the neck and it allows thesurgeon to locate the foreign body during an explorationof the neck.[9]In our case migration was assumed clinically and location of fish bone was confirmed by CT scan of neck. It was done to assess the location of fish bone and its relation to vital structures of the neck in deciding the appropriate surgical approach. Fortunately, fish bone surpassed all the vital structures in the neck region as it advanced toward the skin and lay dormant in the same region for a period of 3 months till the presentation.

The most accepted mode of treatment for the migrated foreign bodies is surgical removal by external approach under general anaesthesia. Few cases in the literature have depicted foreign bodies which had resulted in significant injury to the nearby vital structures such as internal jugular vein or common carotid artery.[10]In our case, the foreign body was removed with an external transcervical approach without any complication.

IV. Conclusion

This case is being reported because of its rare occurrence, and also the closeness of the migrated foreign body to the carotid sheath structures which might have caused complications both preoperatively and intraoperatively. Early diagnosis and timely removal of the foreign body should be done to prevent any serious complication. CT scan of the neck is the investigation of choice for the identification and localization of migrated foreign body. Exploration of the neck and the removal of the foreign body is the treatment of choice. Our case report would help to increase the awareness of these rare but potentially lethal conditions.

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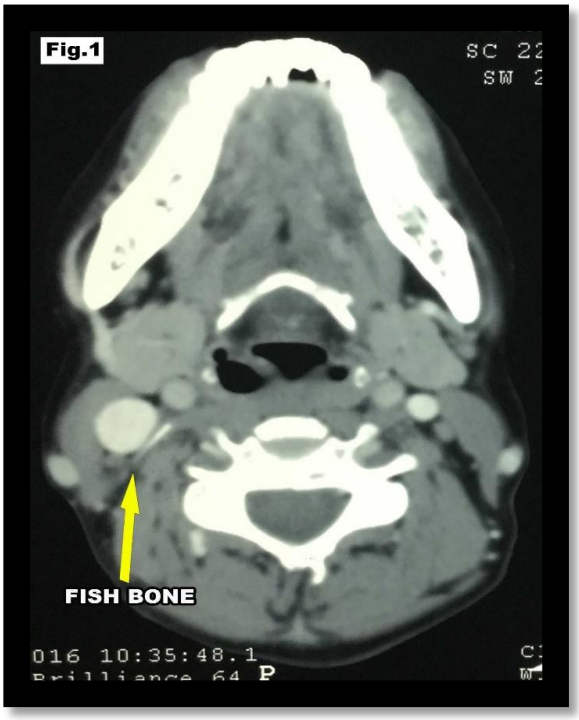

Fig.1: Axial view of computed tomography scan neck showing linear foreign body in right side neck behind Internal jugular vein.Fig.2: Intraoperative photo of removal of Fish bone

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Conflict of interest: All authors declare that they have no conflict of interest.

Ethical approval: Permission to conduct the above study was obtained prior to start of study by the ethical committee of the hospital of affiliation of the authors.

Informed consent: Informed consent to publish the case series was taken from the patients included in the study.

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