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Case Report

Case report on migrated foreign body of prevertebral space removed by lateral pharyngotomy approach

Nicola C. Lyngdoh*, Vanathu Mariyapragasam M., Thongam Kalpana Devi, Ladeiti Hynniewta

Department of ENT and Head-Neck Surgery, Regional Institute of Medical Sciences, Imphal, Manipur, India

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***Correspondence:**
Dr. Nicola C. Lyngdoh,
E-mail: drvmp1964@gmail.com

ABSTRACT

Foreign bodies in the upper aerodigestive tract are common; fish bones form 85% of those foreign bodies, which commonly impacted in the palatine tonsils, the base of the tongue or at the level of the cricopharyngeal sphincter, cervical oesophagus. Rarely, they may migrate extraluminally. Here, we are reporting a case of an ingested fishbone that had migrated to the prevertebral space, which needed a lateral pharyngotomy approach for removal.

Keywords: Fishbone, Lateral pharyngotomy, Migrating foreign body, Prevertebral space

INTRODUCTION

Foreign bodies are commonly encountered in day-to-day Otorhinolaryngology practice, such as those in the ear, nose and throat. Foreign body in the upper aerodigestive tract is common; fish bones form 85% of those foreign bodies.[1] Although the majority of accidentally ingested fishbone can be removed easily, the infrequent complications of a retained fishbone can be potentially disastrous. Rarely, the fish bone may migrate extraluminally aided by swallowing movements and vascular pulsation and it resides in the soft tissue of the neck. The extraluminal sites, such as subcutaneous mass, the retropharyngeal space, under the sternomastoid muscle, thyroid gland, carotid artery, liver.[1-6] Migrated foreign body should be suspected to have occurred when the foreign body is documented radiographically with negative endoscopy. Here, we report a case of an ingested fish bone that migrated from the upper aerodigestive tract to the prevertebral space and was removed using the right lateral pharyngotomy approach.

CASE REPORT

A 42-years-old male with no comorbidities came to the E.N.T. Emergency room with the sensation of foreign body in throat, difficulty and pain during swallowing, which was constant and progressive for 10 days. Also gave a history of consumption of fish meal 10 days ago. The patient tried swallowing food bolus and banana to alleviate the symptoms, but there was no relief. On clinical examination, the patient was febrile and vitals were stable. Local examination of the oral cavity and oropharynx was normal. A rigid 70-degree telescopic laryngeal examination showed congestion of the posterior pharyngeal wall and pooling of saliva in both pyriform fossae.

X-ray soft tissue neck lateral view revealed a single, slender radio-opaque shadow against C3, C4 and C5 levels with increased prevertebral soft tissue shadow and loss of cervical lordosis (Figure 1). CECT neck with 3D reconstruction showed a 3 mm thin and 33 mm long hyperattenuating foreign body (fishbone), impacted in prevertebral space at C3 to C5 level (Figure 2A, 2B and 2C). After obtaining informed and written consent, the patient was taken up for rigid laryngoscopic examination under general anaesthesia, which was negative for the foreign body and the intraoperative C-arm could not identify the foreign body distinctively as it was superimposed by cervical spine shadow. Hence, neck exploration proceeded with the right lateral

pharyngotomy approach, the patient was placed in a supine position with neck extension by placing a shoulder bag. Betadine, spirit painting was done head draped and turned to the left side.

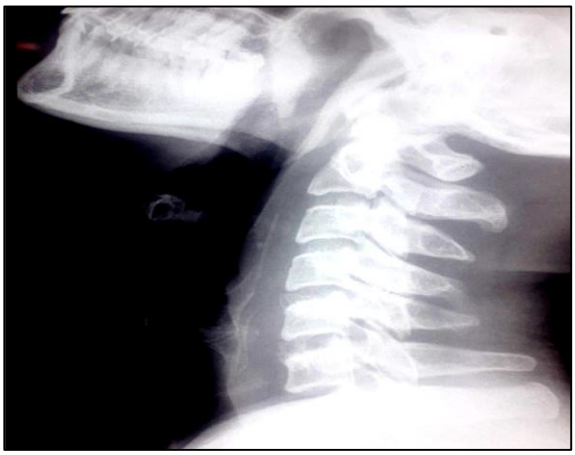

Figure 1: X-ray soft tissue neck-a slender radio-opaque foreign body against C3, C4 and C5 levels with increased prevertebral soft tissue shadow and loss of cervical lordosis.

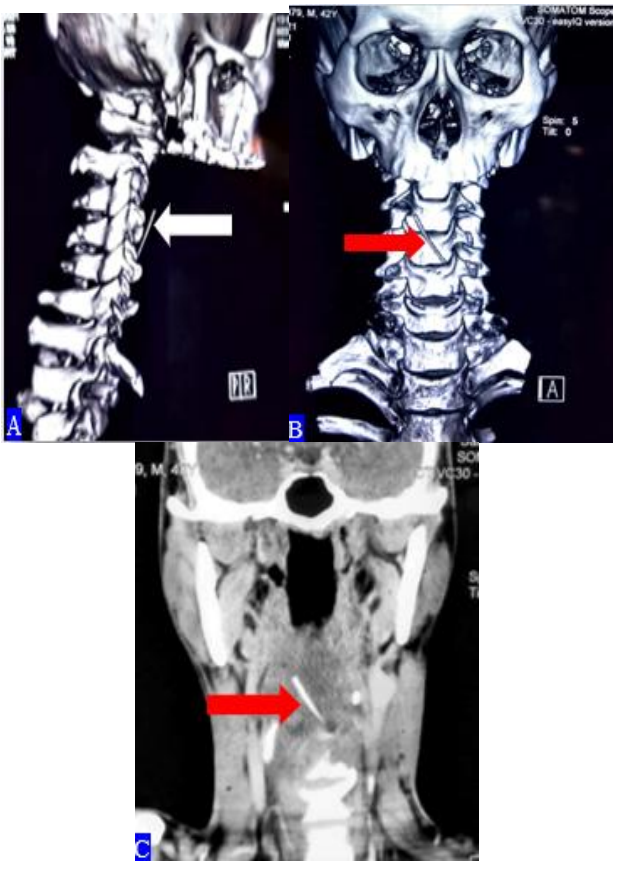

Figure 2 (A-C): CECT neck with 3D reconstruction-Evidence of thin (3 mm) and elongated (33 mm) high attenuating bony foreign body (fishbone), impacted in prevertebral space (C3-C5) level.

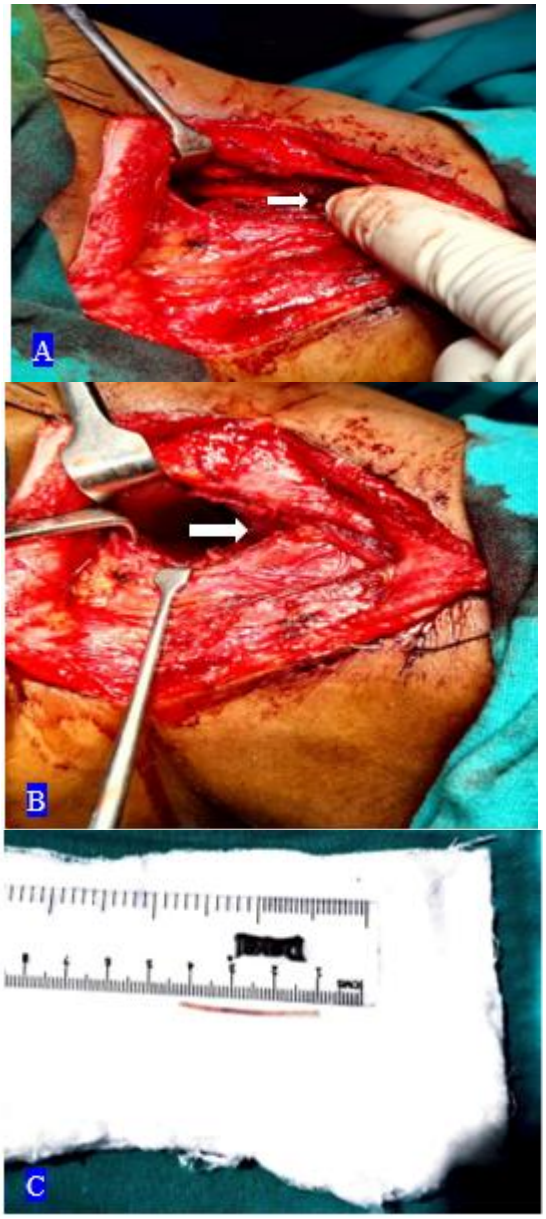

Figure 3 (A and B): Intraoperative pictures of fish bone in prevertebral space and (C) retrieved fish bone.

A horizontal skin incision was given at the level of the hyoid bone in the right lateral neck and subcutaneous tissues and platysma were incised, followed by a subplatysmal flap elevated and secured with silk sutures. Sternomastoid dissected carotid artery retracted laterally. The thyroid was dissected and retracted medially; the foreign body was found lodged in the prevertebral space between the posterior pharyngeal wall muscle and the vertebral body and was removed with forceps (Figure 3A, 3B and 3C). After placing a 12 FG suction drain, the incision closed in layers and was kept for two days. No intraoperative complications were encountered. A nasogastric tube was inserted. Postoperatively, an X-ray of the soft tissue neck was repeated and the patient was treated with piperacillin, tazobactam and metronidazole

for 5 days. The patient was on the nasogastric tube feeding for 1 week and discharged after gaining normal oral feeding. Skin sutures were removed after 2 weeks.

DISCUSSION

In a relatively accessible part of the oral cavity, the outcome of removal of the foreign body will likely be favourable. Hence, the size, shape, sharpness, location and direction of impaction are essential factors in future events. Vigorous attempts at self-removal by swallowing food bolus may force a fish bone to penetrate the walls of the digestive tract so that the bone may gradually migrate toward the soft tissues of the neck; in our case, the foreign body was sharp, slender and also the patient has tried home remedial practices like swallowing food bolus and banana to dislodge the impacted fishbone which might facilitate the migration of foreign body extraluminal.

A migrated foreign body of retropharyngeal space was identified intraoperatively using C-arm.[2] Still, in our case, it was not helpful for accurate localization because the foreign body was lying very close and parallel to the cervical vertebra. A detailed examination and simple neck radiograph are helpful for diagnosis. The sensitivity and specificity of plain radiography were reported as 39% and 72%, respectively.[7] A CT scan can be considered the best diagnostic tool for better detecting foreign body type, size, orientation, location and its relationship to other vital structures in the neck.

Migrated fish bone can be complicated with neck abscess vascular complications and retention in the thyroid gland.[4] Carotid artery injury due to the migrating fish bone, which accompanies infection, the risk of bleeding is estimated to be high and emergency surgery should be performed after thorough preparation of hemostasis.[5] Pseudotumor of the liver has been reported on rare occasions when the fish bone has migrated to the gastrointestinal tract.[6]

CONCLUSION

Delay in seeking medical help after a suspected foreign body in the aerodigestive tract could increase the risk of life-threatening complications such as deep neck space infection, upper airway obstruction, mediastinitis, sepsis and even death. Therefore, early identification and active intervention are imperative. Public awareness should be created to avoid self-remedial measures and immediately seek specialist consultation. CT imaging aids in locating and relative position of the foreign body with that of vital structures such as the carotid artery, internal jugular vein, etc, hence, every ENT surgeon should be aware of the possibility of a migrated foreign body in cases with positive imaging but negative endoscopy. Meticulous surgical techniques and experienced supporting personnel are critical to a successful outcome.

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REFERENCES

1. Low WK.Clinical diagnosis of an unusual cause of a cutaneous neckmass. ORL. 1999;61:364-6.
2. Sattien AM, Ali R, Lucy L, Thingbaijam S. Extraluminal migration of foreign body and its removal by lateral pharyngotomy and intraoperative C-arm. Int J Otorhinolaryngol Head Neck Surg. 2024;10:762-4.
3. Thuduvage VS. Migrated fish bone into the neck: a case report. J Med Case Reports. 2021;15:452.
4. Lin YH, Ho HC, Hsiao SH. An ingested fish bone migrating to the thyroid gland. J Med Case Report. 2006;18(6):438–41.
5. Murakami T. 'Fish bone foreign body piercing into the carotid artery: Case report'. Acta Oto-Laryngologica Case Reports. 2024;9(1):151–5.
6. Srinivasan UP, Duraisamy AB, Ilango S, Rathinasamy A, Chandramo han SM. Inflammatory pseudotumor of liver secondary to migrated f ishbone—a rare cause with an unusual presentation. Ann Gastroenterol. 2013;26(1):84.
7. Lue AJ, Fang WD, Manolidis S. Use of plain radiography and computed tomography to identify fish bone foreign bodies. Otolaryngol Head Neck Surg. 2000;123:435-8.

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