

Case Report

Deep Neck Abscess Caused by a Migrating Fish Bone - A Case Report

Dr. Ram Singh¹, Dr. Ankita Singh², Dr. Vikrant Bagwe², Dr. Rajesh Yadav³

¹Registrar, ²House officer, ³Lecturer,
Dept of ENT and Head - Neck Surgery, Bharatratna Dr Babasaheb Ambedkar Municipal General Hospital,
Kandivali, Mumbai

Corresponding Author: Dr. Ram Singh

ABSTRACT

Foreign body in the neck usually will present with acute symptom of odynophagia or dysphagia. Migration of these foreign bodies to the adjacent structures may occur as late complication like deep neck infections especially if the initial workup missed to detect their presence. Although, deep neck infections are not uncommon; a migrating fish bone is seldom a cause of a deep neck abscess. Fish bones are a sharp foreign body and can penetrate the oropharynx or esophagus. However, this rarely occurs. We report a case of deep neck abscess resulting from the intracorporeal migration of a fish bone. Initial radiography and endoscopy of the neck, both were negative; migration of the bone was ultimately documented by computed tomography. Surgical exploration was performed via a lateral neck incision, and the fish bone was successfully retrieved. Although fish bones are a rare etiology of deep neck abscesses, should be kept in mind when a patient has the history of fish bone ingestion.

Key words – Fish bone, migratory, deep neck infection, abscess

INTRODUCTION

Cases of ingested fish bone are common in otorhinolaryngology practice. Patients usually come with complaints of sharp pain in the throat and odynophagia. The foreign body is located usually in the palatine tonsils and the valleculae. ⁽¹⁾ Depending on the location of the bone, most of them can be removed in the clinic set up. However, it can become more complicated once migration occurs. The infrequent complications of a retained fish bone, including deep neck abscess, mediastinitis, lung abscess, an esophageal carotid-artery fistula, and a perforated bowel, are potentially disastrous, all of which can increase morbidity and occasionally even cause mortality. ⁽²⁾ Rarely, the fish bone may penetrate extraluminally and reside in the soft tissue of the neck. Computed tomography (CT) of the neck is of great

assistance in diagnosing a migrating fish bone. Surgical exploration is mandatory in such situations.

CASE REPORT

A 76-year-old male visited our hospital with complaints of odynophagia and right sided lateral neck swelling since last 3 days. (figure 1)



Figure.1

The patient gave history of throat discomfort, 2 months ago, after ingestion of an unspecific fish bone for which he had visited another hospital. X-ray Neck taken in that hospital did not reveal any significant finding at that time. His symptoms improved after administration of oral antibiotics and anti-inflammatory agents. However, 2 months later patient presented to our hospital with symptoms of throat discomfort and painful right sided neck swelling. In concern of fresh symptoms, a Diagnostic Rigid laryngoscopy with 70

degree rod endoscope was performed and a fresh X ray neck was taken. There were no specific findings in these tests in our hospital, and also the basic blood investigations were within normal range. Under the impression of a suspected migrating foreign body and deep neck infection, computed tomography (CT) of the neck was performed. The axial CT scan revealed that a deep neck abscess had formed in the right anterior cervical space, with a dense foreign body (white arrow) evident inside the abscess cavity. (figure 2)



Figure .2

This case was diagnosed as deep neck infection caused by fish bone migration, and surgical exploration was performed under general anesthesia. The 3.7cm fish bone stuck in the

sternocleidomastoid muscle was removed through a 3 cm lateral skin incision on right side of neck and pus drained along with irrigation of neighbouring tissues. (Figure.3 & 4)

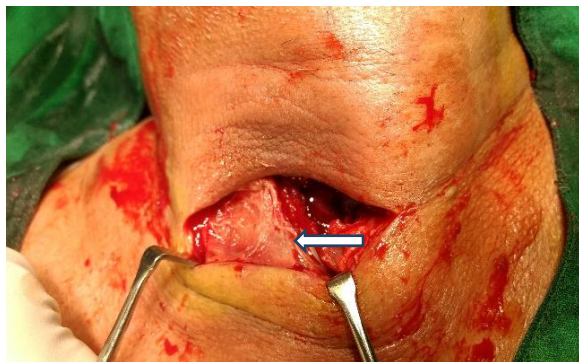


Figure.3



Figure.4

Appropriate antibiotics were administered according to the drug sensitivity test. The postoperative period was uneventful. The patient was discharged on the 5th post-operative day without any specific complications.

DISCUSSION

Accidental ingestion of fish bones is quite common. When intrusions occur, the fish bones typically lodge in the tonsils or the base of the tongue. (3,4) Other sites of impaction include the vallecula, pyriform fossa, epiglottis, cricopharynx, and

esophagus. ⁽⁴⁾ A fish bone is sometimes not evident on plain radiographs because of its radiolucency. A plain radiograph is usually arranged to confirm the diagnosis of an ingested fish bone, however, the clinical utility is questionable. Leu et al. reported a sensitivity and specificity of 39% and 72%, respectively, for their plain radiographs. ⁽²⁾ Fish bones may be radiolucent or radiopaque, however, and sometimes even the latter variants are of insufficient radiosensitivity to be clearly visible on a radiograph. If the radiograph provides definite evidence of a fish bone, rigid esophagoscopy under general anesthesia may be arranged for further evaluation. Migration is assumed to have occurred when the foreign body is documented radiographically with negative endoscopy. ^(3,5)

A migrated foreign body can occur in any adult age group, and the possibility should always be borne in mind when throat discomfort symptoms are persistent and there is history of swallowing difficulties involving fish bones. It has been demonstrated that the use of chopsticks and an edentulous status are predisposing factors. ⁽³⁾ A thorough oral examination, flexible fiberoptic endoscopy, and neck radiography are essential for an initial diagnosis of fish bone impaction in the upper aerodigestive tract. ACT scan is another useful tool for locating the intruding object, obviating unnecessary general anesthesia with rigid esophagoscopy. Relatively speaking, a CT scan is superior to a plain radiograph in terms of its ability to discriminate ingested fish bones. ^(2,3,5-7) A CT scan can reveal not only the size, type, location, and orientation of the foreign body, but also its relationship to other vital structures of the neck. In the present case, for example, both the plain neck radiograph and endoscopy were negative, but the patient still experienced odynophagia and neck pain. A migrating fish bone should be suspected in such asymptomatic patient. A CT scan is indicated in such situations even when both of the other investigative

modalities are negative. The cost-effectiveness of using CT to screen patients with possible fish bone ingestion is still a controversial issue. However, CT is of great help in selected patients with persistent symptoms, as in the present case. Exploration for a migrated foreign body has been described by some otolaryngologists to be like fishing for a needle in the ocean. Given the potentially hazardous consequences and the therapeutic dilemma presented by this type of medical situation, a meticulous surgical technique and experienced supporting personnel are critical to a successful outcome. Unbelievably, the fish bone may simply disappear. ⁽⁸⁾

CONCLUSION

For patients with history of swallowing a foreign body such as a fish bone, when simple X-ray and endoscopy showed negative results but odynophagia and neck pain are observed, detailed history taking, the possibility of fish bone migration should be considered and physical examination and CT scan should be conducted. CT scanning conducted early can prevent life-threatening complications caused by delayed diagnosis. If the migration is confirmed, the fish bone should be removed through surgical approach, preserving the major structures of the neck.

REFERENCES

1. Shaariyah MM, Salina H, Dipak B, Majid MN: Migration of foreign body from postcricoid region to the subcutaneous tissue of the neck. *Ann Saudi Med*, 2010; 30: 475–77
2. 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.
3. Chee LW, Sethi DS. Diagnostic and therapeutic approach to migrating foreign bodies. *Ann Otol Rhinol Laryngol*. 1999;108:177-80.

4. Pang KP, Pang YT. A rare case of a foreign body migration from the upper digestive tract to the subcutaneous neck. *Ear Nose Throat J* 2002;81:730-2.
5. Arumainathan UD, Lwin S, Suan TL, Raman R. Removal of a fish bone in the thyroid gland without the need for thyroid lobectomy. *Ear Nose Throat J* 2000;79:314-5.
6. Watanabe K, Kikuchi T, Katori Y, Fujiwara H, Sugita R, Takasaka T, Hashimoto S. The usefulness of computed tomography in the diagnosis of impacted fish bones in the oesophagus. *J LaryngolOtol* 1998;112:360-4.
7. Eliashar R, Dano I, Dangoor E, Braverman I, Sichel JY. Computed tomography diagnosis of esophageal bone impaction: a prospective study. *Ann OtolRhinolLaryngol* 1999;108:708-10.
8. Canbay E, Prinsley P. The case of the disappearing fish bone. *J Otolaryngol* 1995;24:375-6.

How to cite this article: Singh R, Singh A, Bagwe V et al. Deep neck abscess caused by a migrating fish bone - a case report. *Int J Health Sci Res.* 2017; 7(5):406-409.
