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### RESEARCH ARTICLE

#### A CASE REPORT OF MIGRATORY FISH BONE PIERCING LEFT LOBE OF THE THYROID

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#### Abstract

Fish bone as a foreign body in the throat is common and frequently seen in emergency departments. In most cases, the bone is stuck in the tonsils or oropharynx, some go further to the laryngopharynx, and in rare cases they may go furthest. The authors report a rare case of a fish bone that migrated to the thyroid gland [1, 13&14] Fish bones as swallowed foreign bodies can be managed by direct removal using headlight or require an endoscopic approach. Some even need open surgery. Some bones may penetrate the mucosa of the upper aerodigestive tract and migrate to neck soft tissues and organs. In such cases, patient complaints are of unusual presentation for swallowed foreign bodies, and patients may suffer different complications that require a more aggressive management [2].

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#### Introduction:-

##### Case report:

78-year-old female patient, presented to Emergency department with complains of throat pain when swallowing as a consequence of fish bone ingestion few hours to presentation. Her Neck x ray showed Linear prevertebral radio opaque shadow noted at C5-6 levels measuring 25 mm left sided (figure 1).

She is known case of Asthma, Hypertension and Morbid obesity

Examinations unremarkable apart from morbid obese patient her BMI 45 and vitally stable.

She was seen by ENT specialist and a flexible laryngoscopy showed no fish bone. The patient was advised for Gastroscopy, but she refused. She came back after 4 days from the initial admission with the same above-mentioned complaints. A repeated X ray Neck showed persistent faint linear radio opaque shadow along the hypopharyngeal, upper esophageal soft tissues (figure 2).

Gastroscopy was done which revealed left pyriform sinus edema, but no foreign body seen in the upper esophagus, stomach, or duodenum. (Figure 3)

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A CT Neck showed: Features of linear foreign body (fish bone) penetrating the pharynx and reaching the left lobe of the thyroid (Figures 4, 5 & 6)

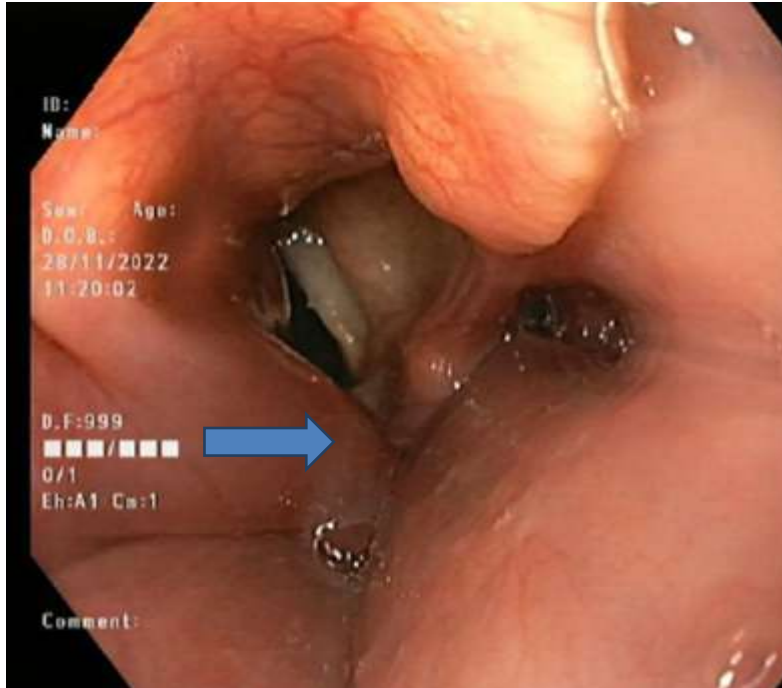
The patient underwent Surgical removal of the fish bone under general anesthesia (figures 7, 8& 9).The Fish bone (3.5cm in length) was removed from left lobe of thyroid carefully and a drain was inserted for 2 days. We kept the patient under observation and received injectable antibiotics. A repeated neck Ultrasound was done and there was no collection or abscess formation.The wound healed and her Thyroid function test was normal. She came for follow up to General Surgery clinic after 2 weeks with significant improvement and no complaints.



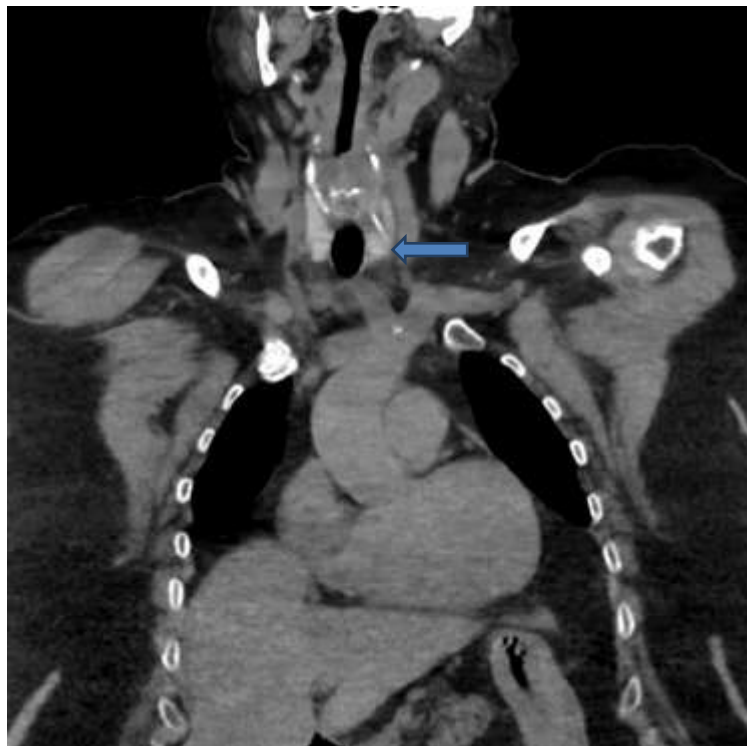
**Figure 1:-** Linear prevertebral radio opaque shadow noted at C5-6 levels measuring 25 mm in left side suggestive of foreign body.



**Figure 2:-** Persistent faint linear radio opaque shadow along the hypopharyngeal ,upper esophageal soft tissues (Blue arrow).



**Figure 3:-** Endoscopy image showed Pharyngeal exam showed left pyriform sinus edema(blue arrow).



**Figure 4:-**



Figure 5:-

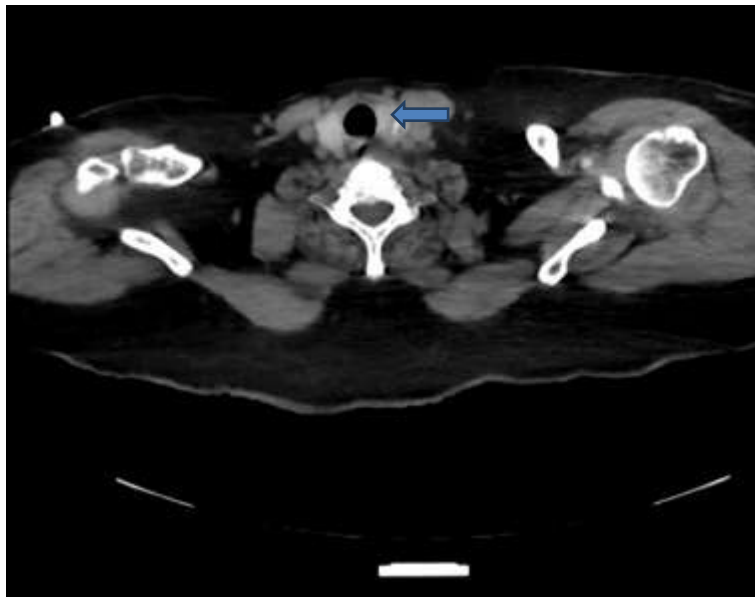
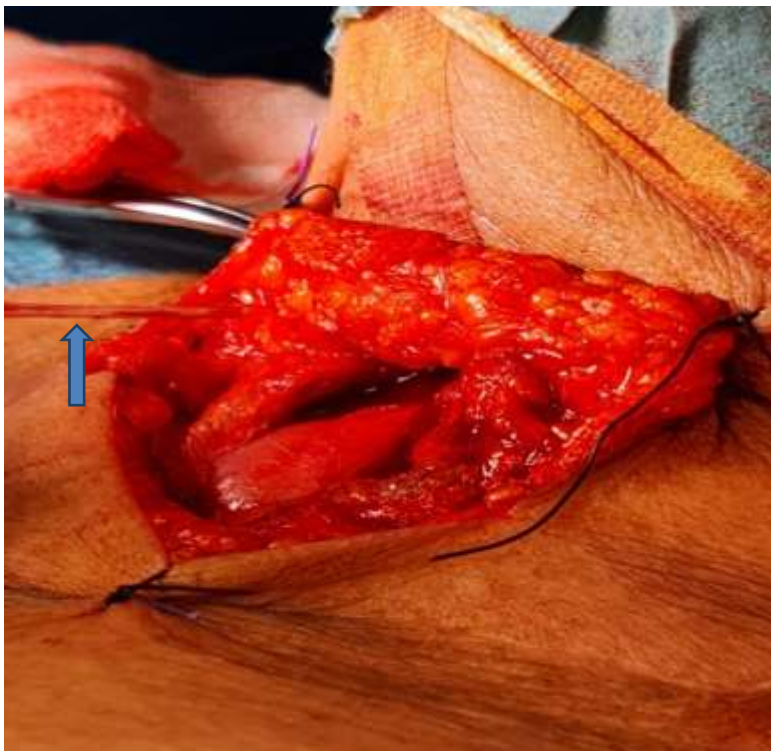


Figure 6:-

Figures (4,5 & 6 showed Features of linear foreign body (fish bone) penetrating the pharynx and reaching the left lobe of the thyroid on CT Neck)



**Figure 7:-**



**Figure 8:-** The fish bone removed as shown (blue arrow).



**Figure 9:-** (Fish bone measuring 3.5 cm removed from the Left thyroid lobe).

### **Discussion:-**

Foreign bodies are common in otorhinolaryngology visits and must be taken seriously. Not only can they be inhaled, but there is also a risk of migration into soft tissues of the neck which can cause neurovascular lesions, development of abscesses, and fistulas [3, 13]

The initial evaluation should consist of a detailed history including the type of foreign body (eg, fish versus animal bone, wood, and metal) and physical examination (ie, palpation and endoscopy) within the outpatient department. If no foreign body is found, symptoms of pain and globus can also be due to small lesions of the mucosa [4]. The persistence of symptoms may indicate the presence of a foreign body which may, for example, be hidden in a mucosal fold or in an extraluminal migration [5]. Plain radiography is often used since it can identify radiopaque foreign bodies (eg, woods, metal, and animal bones) including some fish bones with a sensitivity of 79% [6,7& 8]

Pharyngo-laryngo-esophagoscopy should be performed even in case of migration because the entry point can sometimes be found and the foreign body removed without requiring an open surgery [9, 10]

CT has a sensitivity of 100% in the soft tissues and can be useful, not only for preoperative planning but also for evaluating complications[11 &12].

### **Conclusion:-**

Foreign body migration or penetration into the thyroid gland is rare and difficult to diagnose. When no foreign body can be found with flexible endoscopy, computed tomography remains useful, especially for presurgical evaluation. Clinicians should pay close attention to patients with persistent symptoms following a history of fish bone ingestion. Fish bones are potential causes of unpredictable complications when swallowed as foreign bodies. They bear the risk of damaging the mucosa along the alimentary tract tube and migrating far, causing abscesses, recurrent infections, or acute profuse bleeding

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