CASE REPORT

# Abdominal wall abscess with fish bone migration from proximal ileum

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**Keywords:** Abdominal; wall abscess; fish bone; proximal ileum; inflammatory mass

## Introduction

Foreign body ingestion occurs either intentionally or unintentionally, culprits are mostly food particles like fishbone or chicken bone, metal particles like coins or batteries or glass pieces. Most of the time foreign bodies pass through uneventfully [1]. But they can occasionally bring about complications such as obstruction, perforation and sepsis. Even though most of the patients are managed conservatively, 10%-20% of patients need endoscopic intervention. Surgical intervention is required in less than 1% of patients [1]. We report the case of accidental ingestion of fish bone which led to ileal perforation followed by concealed anterior abdominal wall abscess with fish bone which required surgical intervention.

## Case presentation

A 60-year-old Lady presented to the hospital with a history of peri umbilical pain over the one-month duration with a lump to the left side of the umbilicus. She had been on treatment for diabetes, hypertension and rheumatoid arthritis in good control and had undergone LRT 20 years back. Her family histories were unremarkable. She is a housewife, non-Smoker and non-Alcoholic. She denied knowledge of fish bone ingestion in the recent past. She was well one month back and developed intermittent peri umbilical pain over three weeks and was treated as gastritis as an outpatient. She noticed the appearance of a tender lump towards the left of her umbilicus associated with an intermittent fever over one week which ultimately led to her hospital admission.

On examination, there was a sub umbilical scar and a lump on the left side of the umbilicus which extended to the left lumber region with a size of 8cm * 10cm. It was severely tender, deep to the rectus and had no skin colour changes. The rest of the abdomen was unremarkable. She was afebrile, not pale and

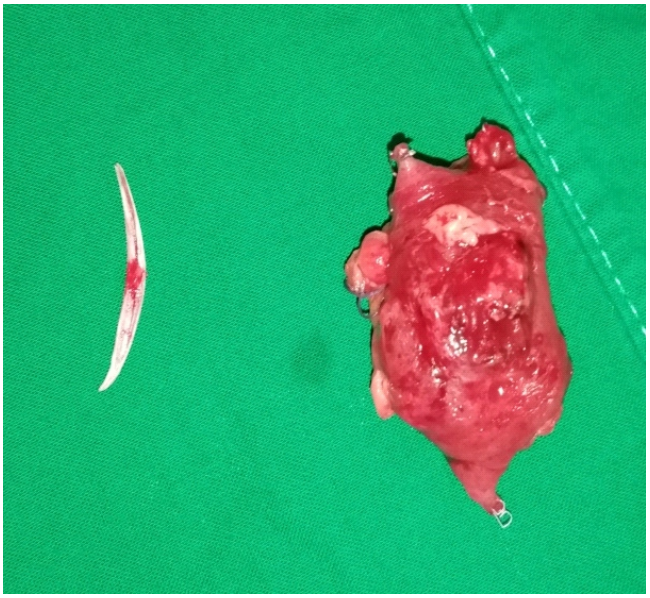

**Figure 1a.** Inflammatory mass with fish bone

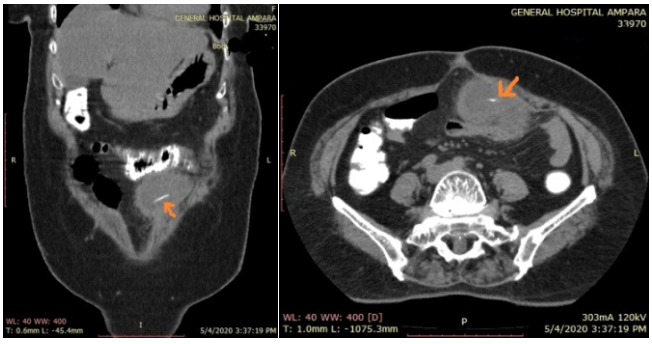


Figure 1b. Foreign body within the mass on CT

was not icteric. Her pulse rate and blood pressures were 80 beats per minute (bpm) and 140/80mmHg, respectively.

The white cell count and C-reactive protein levels were elevated while the rest of her biochemistry was normal. Abdominal ultrasonography showed hyper-peristaltic bowel loops with a slightly hypo echoic anterior wall of bowel with a small out pouching onto the rectus muscle suggestive of a small abscess with a linear foreign body seen in situ.

Computed tomography (CT) showed a 4cm size hyper dense linear foreign body (179HU) surrounded by central cystic and peripheral solid complex lesion with regional inflammation and infiltration into left side rectus abdominis muscle. There

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were possible adhesion with adjacent transverse colon and ileal loops. Although she was unaware of having ingested a sharp object like a fish bone, a strong suspicion of such occurrence was raised following the imaging studies. Initially, we treated with IV antibiotics conservatively for one week as the patient refused to go ahead with the surgery. The patient went home on her own accord following the completion of medical treatment. One week later patient presented again to the hospital due to the persistence of the same symptoms. In this admission, she agreed to go ahead with surgical exploration after discussing the probabilities and complications at length.

The patient underwent midline laparotomy under general anaesthesia and findings revealed a large inflammatory mass lesion with greater omentum adhered to the anterior abdominal wall. On further exploration, the mass turned out to be an abscess containing pus and a large fish bone communicating with a proximal ileal loop. Pus was drained and sent for culture and ABST. The point of ileal perforation had unhealthy edges with surrounding inflammation. The unhealthy ileal part was resected and side-to-side stapler anastomosis was performed. An abdominal drain was placed and laparotomy was closed in mass closure technique. Postoperatively she was treated with IV antibiotics for one week and the drain was removed on the 6$^{th}$ post-operative day .she had an uneventful postoperative course and was discharged on the 7$^{th}$ day following surgery.

**Discussion**

Accidental foreign body ingestion is usually associated with dietary foreign bodies which may rarely give to perforation in the adult population[1] and frequently with fish bones. The eaten fish bone may be forgotten but there can be an interval between symptoms related to stagnated fish bone and ingestion. 80% to 90% of swallowed foreign bodies exit the Gastrointestinal tract without any complication and only 10% to 15% need interven-tion [2]**.** History is not a reliable factor to suspect fish bone ingestion which can complicate abscess formation according to previous case reports [3]. Complications related to fish bone ingestion may present with a wide range of symptoms including odynophagia, dysphagia, upper GI haemorrhage, bowel obstruction, concealed perforation to frank peritonitis. Surgical intervention can be carried out via laparoscopy or laparotomy [1] only a few cases abdominal wall abscess formation due to accidental fish bone ingestion [1]. As a result, the history and presentation of the clinical condition itself don't offer information indicative of fish bone ingestion.

Ultrasonography in experienced hands can detect foreign body suggestive of fish bone with inflammatory mass [4] in the anterior abdominal wall associated with bowel loops as in our case. Radiopaque foreign bodies can usually be identified by plain radiography with a sensitivity of 79% (eg, animal bones, woods and metals) including some fish bones [5]**.** CT abdomen confirmed the foreign body and location within inflammatory mass associated with bowel loop communication.

Initially, the patient was managed conservatively with IV antibiotics due to the patient's reluctance to go ahead with the surgery. Surgical exploration is almost always necessary for foreign bodies complicated with abscesses. As in our case, laparotomy was carried out to remove the foreign body which was found within the abscess cavity and laparoscopy was not performed because of the presence of adhesions involving the bowel loops and anterior abdominal wall. The fish bone was removed with part of the omentum, the entirety of the inflammatory mass and part of the unhealthy proximal ileum. The object was identified as a 4 cm-long fish bone. proximal ileal ends were anastomosed side-to-side with the stapler technique. Her post-operative stay was uneventful. Proximal ileal extraluminal migration of foreign body that leads to anterior abdominal wall abscess is unusual and no previous cases were reported to the best of our knowledge.

**Conclusion**

Accidental foreign body ingestion is common in the adult population. It rarely leads to complications like obstruction, perforation and bleeding. Most of the time, this type of Clinical condition can be managed conservatively, on occasions endoscopic management has taken place. Surgical intervention is needed rarely but in complicated cases like perforation, almost always needs surgical intervention.

All authors disclose no conflict of interest. The study was conducted in accordance with the ethical standards of the relevant institutional or national ethics committee and the Helsinki Declaration of 1975, as revised in 2000.

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**Learning Points:**

- Abdominal wall abscess is a rare complication associated with foreign ingestion-related perforation.
- History is not direct or helpful when a foreign body is accidentally ingested.
- CT is a more sensitive investigation to identify, and locate the radio-opaque foreign body and give better anatomical delineation of the surrounding structures to plan the surgery.