

Rare Case Of Perigastric Abscess Secondary To Fish Bone Perforation

Dr. Nikhil Ailani, Dr. Ajay Gujjar

Department Of Surgical, Rajawadi Hospital, Mumbai

Date of Submission: 04-11-2025

Date of Acceptance: 14-11-2025

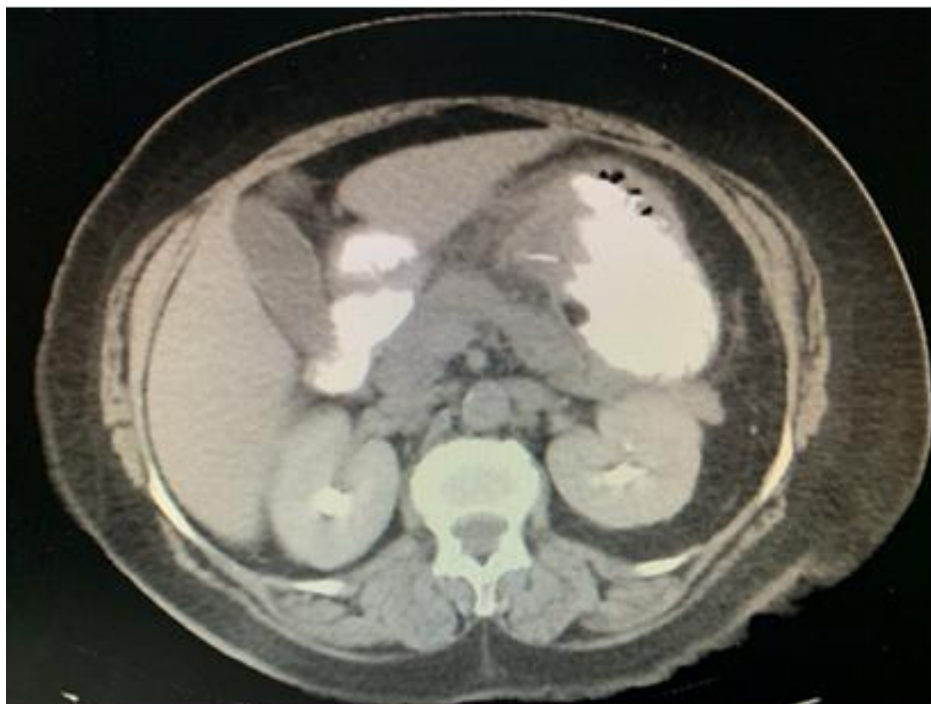
I. Introduction

Stomach perforation by ingested fish bone resulting in perigastric abscess is very rare with few case reports in the literature. They present with nonspecific features of an acute abdomen and with less severe clinical features than those with perforations present in other parts of the gastrointestinal tract (GIT). The clinical diagnosis is challenging without a definitive history of fish bone ingestion. The main stay of diagnosis is CT scan of the abdomen carried out for evaluation of acute abdomen. We hereby report a rare case of perigastric abscess caused by fish bone perforating the lesser curvature of the stomach.

II. Case Report

A 60 years old Lady known case of Diabetes mellitus, Hypertension & Atrial fibrillation came with history of pain in abdomen since 10 days. She also had complaints of fever and vomiting since 4 days. She had received oral antibiotics and painkiller without complete relief. Patient was investigated outside and was found to have an abscess in the left lobe of the liver (Segment 3) on the initial ultrasound which measured 1.8 cm in size and which increased to 4 cm on repeated Ultrasound. She was admitted and started on IV Antibiotics and IV fluids. An ultrasound of the abdomen was repeated which showed collection in the lesser sac abutting left lobe of the liver with air inside the collection.

To further delineate the lesion she underwent CT Abdomen which showed well defined cystic lesion in the gastro-hepatic region and lesser Sac with air fluid level within. Peripheral thick enhancing wall perigastric fat stranding and reactive lymphnodes. There was a linear foreign body in the cavity probably ? fish bone. There was no leak of contrast from the stomach.



CECT ABDOMEN shows linear steak in the retro gastric region (?Fish bone) with collection around it.

Patient underwent OGD scopy which was essentially normal, it was decided to take up the patient for Diagnostic laparoscopy with drainage of the abscess with foreign body extraction.

After the creation of pneumoperitonium via the open technique, 4 (5mm) ports were inserted- epigastrium, left and right subcostal, left lumbar and 10mm in the supraumbilical region. During laparoscopy a large walled off collection was noted between the left lobe of the liver and stomach. Pus was noted oozing out. Approx- 50cc was drained out. Foreign body (bone) of 4 cm visualised in the cavity. The foreign body extracted with the tooth forceps. Wash given. Leak test done which showed no gas leak from the stomach. Incision closed in layers. Patient was shifted to ICU post operatively for observation. Patient was shifted to ward the next morning along with starting with liquid Diet. RT, foleys and drain was removed on the post operative day 2. Patient was discharged on post operative day 5.



Figure 1- Abscess cavity below the liver



Figure 2- Abscess cavity below the liver



Figure 3- Abscess cavity opened

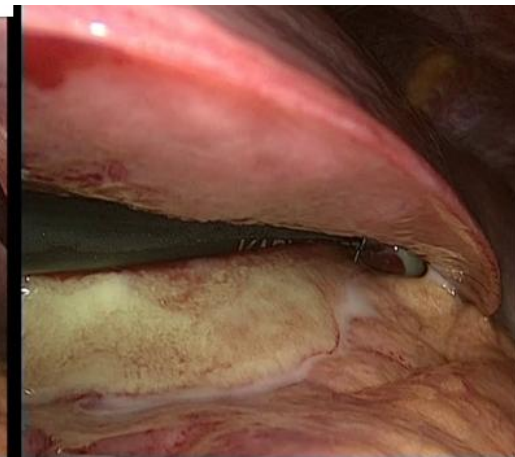


Figure 4- Pus noted oozing out

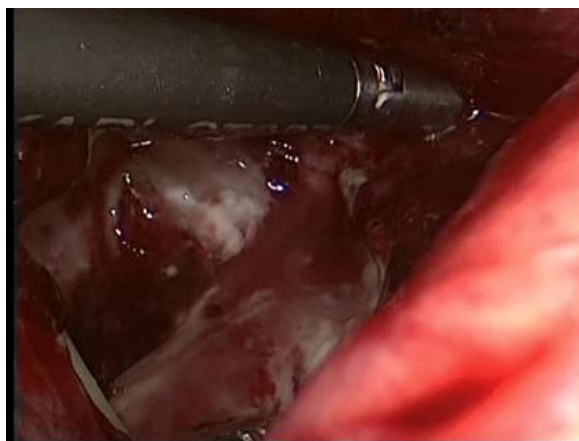


Figure 5- Fish bone noted at the side

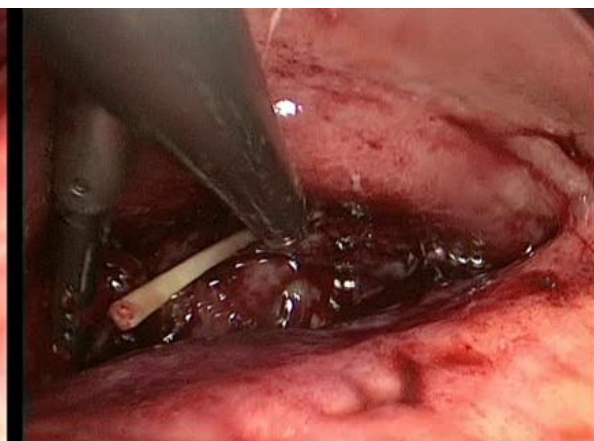


Figure 6- Fish bone removed of the cavity



Figure 7- Fish bone extracted from the cavity Figure 8- Cavity cleaned

III. Discussion

Fish bone is one of the most commonly ingested foreign bodies. Some studies report they represent up to 80-90% of the foreign bodies ingested.¹ The other commonly ingested foreign bodies include chicken bone, toothpick, needles, pens, and dental plates.² Most of them pass spontaneously without symptoms.¹ Foreign bodies usually get impacted at the oesophageal sphincters, pyloric canal, duodenum, ileocaecal valve, and anus where there is expected normal extrinsic impression or anatomical narrowing. Perforations are more common in the oesophagus causing pneumo-mediastinum, retropharyngeal abscess, mediastinal abscess, and bleeding. Perforations and complications beyond the esophagus are rare.³ Such patients present with nonspecific acute abdomen mimicking common pathologies making the diagnosis challenging without definitive history of fish bone ingestion.

Gastrointestinal perforation by an ingested fish bone resulting in perigastric abscess is very rare. In these cases, the site of perforation is usually in the stomach or duodenum with the abscess most commonly developing in the perigastric region/ subhepatic, because of its proximity. In the stomach, the site of perforation is usually seen along the lesser curvature because of the anatomical acute angularity. They may be partially embedded in the stomach wall with associated perigastric inflammatory changes or can be complicated with perigastric abscess formation. Rarely, the fish bone may penetrate into the adjacent hepatic parenchyma and cause abscess.⁴ The classic clinical features of perigastric abscess like fever, abdominal pain, and vomiting is usually not seen. Most patients have vague symptoms such as anorexia with leukocytosis with deranged liver function test. Computed tomography scan is the imaging modality of choice, which is carried out to investigate the acute abdomen, and fish bone is incidentally detected. The multiplanar capability easily detects the fish bone, which appears as linear hyperdensity. It can even detect very small and radiographically lucent fish bones. Pneumoperitoneum is less commonly seen because perforation by fish bone is gradual and by pressure necrosis, which may be sealed by surrounding inflammatory changes.¹ The abscess is seen as a rim enhancing collection with or without multiloculations. Microorganisms found in the abscess cultures are the common bacterial flora seen in the oropharynx.⁵

Small abscess less than 5 cm may be treated with antibiotics. Larger abscess with multiloculations usually are treated with surgery, draining of the abscess, and removal of the foreign body.

IV. Conclusion

In conclusion, gastric perforation by fish bone ingestion is a rare presentation. In patients with accidental fish bone ingestion complications present with nonspecific features of acute abdomen. The clinical diagnosis is challenging without a definitive history of fish bone ingestion. A CT scan with its multiplanar capability is highly valuable to diagnose and accurately localize the ingested fish bone, which can direct accurate timely treatment. In addition, the CT can also provide a comprehensive evaluation of the complications of fish bone ingestion including perigastric abscess. Laparoscopy is feasible option for extraction of such foreign bodies.

References

- [1]. Goh BK, Tan YM, Lin SE, Chow PK, Cheah FK, Ooi LL, Et Al. CT In The Preoperative Diagnosis Of Fish Bone Perforation Of The Gastrointestinal Tract. *AJR Am J Roentgenol*. 2006;187:710-144. [Pubmed]
- [2]. De La Vega M, Rivero JC, Ruiz L, Suarez S. A Fish Bone In The Liver. *Lancet*. 2001;358:982. [Pubmed]
- [3]. Bathla G, Teo LL, Dhanda S. Pictorial Essay: Complications Of A Swallowed Fish Bone. *Indian J Radiol Imaging*. 2011;21:63-68. [PMC Free Article] [Pubmed]
- [4]. Masoodi I, Alsayari K, Al Mohaimed K, Ahmad S, Almtawa A, Alomair A, Et Al. Fish Bone Migration: An Unusual Cause Of Liver Abscess. *BMJ Case Rep*. 2012;Pii:Bcr0920114838. [PMC Free Article] [Pubmed]
- [5]. Kessler AT, Kourtis AP. Images In Clinical Medicine. Liver Abscess Due To *Eikenella Corrodens* From A Fishbone. *N Engl J Med*. 2001;345:E5. [Pubmed]