

Fish Bone Causing Small Bowel Perforation Mimicking Acute Appendicitis

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ABSTRACT

It is common for people to ingest foreign bodies but perforation of intestine secondary to this is rare. Such perforations may mimic other surgical conditions like acute appendicitis as a result of peritonitis. Fish bone, though elongated with sharp ends, usually does not cause perforation. We present here a case of a middle aged woman presenting with features of acute appendicitis. At surgery a normal appendix was found and on thorough search small bowel perforation noted along with a free floating fish bone in abdominal cavity. Primary repair of perforation was performed and patient recovered without any complication.

Key words Foreign body ingestion, Small bowel perforation, Fish bone, Acute abdomen.

INTRODUCTION:

Gastrointestinal tract perforation caused by foreign body ingestion is relatively rare but can occur in patient with Meckel's diverticulum or hernia sac if it enters these structures. Majority of the foreign bodies are impacted at the cricopharyngeal sphincter of esophagus and if a foreign body successfully reaches stomach 90% pass through small bowel with relatively rare chance of development of complications.¹ Usually foreign bodies pass spontaneously but 10-20% of cases require endoscopic removal and in 1% perforation of gastrointestinal tract may occur. The method of choice for diagnosis of foreign body ingestion is CT scan.² Here we present a case of small bowel perforation secondary to fish bone ingestion with clinical features resembling acute appendicitis.

CASE REPORT:

A 40-years old woman presented to emergency with complaint of acute pain in lower abdomen for the last few hours. It was accompanied by nausea. Patient also had fever of 38°C. She passed stool on previous day. She was also taking treatment for hypertension. She had history of two normal vaginal

deliveries previously. On examination there was tenderness in right iliac region. X-ray abdomen showed no evidence of bowel perforation. A diagnosis of perforated appendicitis was made. She was scheduled for emergency appendicectomy. At operation appendix was found normal. Further exploration showed normal looking right ovary. There was peritoneal fluid in abdominal cavity and a free floating fish bone found (Fig I). Upon thorough search of small bowel a small ileal perforation was found, one and a half feet from ileocecal junction (Fig II). Primary repair of perforation was done. Appendectomy was also performed. Abdomen was washed thoroughly with normal saline and drain placed. Intravenous antibiotics continued. Patient was kept nil per oral for three days. She was discharged on fifth day after good oral intake. At follow up patient had no complications.

DISCUSSION:

Any foreign body that is not soluble, if ingested, can cause bowel perforation. Most commonly ingested foreign bodies include chicken bone, tooth pick, fish bone and pieces of bone.³ Accidental ingestion of foreign body is quite common however perforation

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Fig I: Fish bone found floating freely in abdominal cavity.

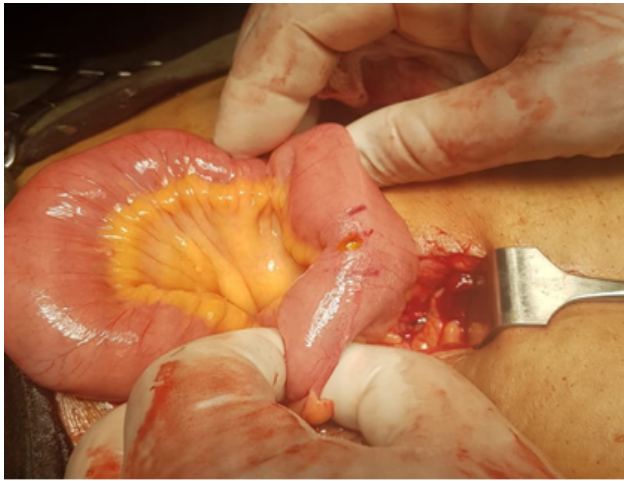


Fig II: A small perforation in ileum secondary to fish bone

is rarely seen as most of the foreign bodies pass in stool without causing trouble. Only sharp object cause perforation in minority of patients usually in ileum.⁴ Other objects that can cause perforation include nail, batteries etc.⁵ According to Madrona et al study chicken bone was the most frequent cause of small bowel perforation due to ingested foreign body while in Goh et al series fish bone was identified as offending agent causing perforation due to their pointed nature.^{6,7}

Usually swallowed objects tend to cause perforation at angulated regions like ileocecal valve and rectosigmoid region, but they can occur anywhere along the intestinal tract.⁸ Goh et al reported that terminal ileum is the most common site of perforation due to fish bone. In our case perforation was in terminal ileum about one and a half feet from ileocecal junction. Patients usually present with acute abdomen although they can have various signs like that of an abscess in a localized area, fistula formation, inflammatory mass, bleeding, acute intestinal obstruction etc. Perforations can sometime be mistaken for acute appendicitis and perforated diverticulitis.⁹ We also suspected acute appendicitis in our patient.

Different treatments are adopted for such perforation like direct repair or resection anastomosis of intestine. We performed primary repair due to small size of perforation and less contamination of peritoneal fluid. Fish bone leading to gastrointestinal perforation has been described well previously but in our case presentation was more subtle with free floating fish bone in peritoneal cavity. The specimen of appendix removed showed no evidence of reactive inflammatory changes.

CONCLUSION:

Ingested fish bone though rare cause of ileal perforation deceived us as acute appendicitis that was suspected on clinical examination. A thorough history could have pointed towards this unusual finding.

REFERENCES:

1. Earlam R. Clinical tests of oesophageal function. Grune & Stratton; 1975.
2. Coulier B, Tancredi MH, Ramboux A. Spiral CT and multidetector-row CT diagnosis of perforation of the small intestine caused by ingested foreign bodies. *Eur Radiol.* 2004;14:1918-25. doi: 10.1007/s00330-004-2430-1.
3. Khalid A, Ali SM, Aftab Z, Lamba P, Ayman AH, Abunada MH. Laparoscopic management of ileal perforation by fish bone-case report. *Int J Adv Case Rep.* 2015;2:785-7.
4. McCause DE, Kurchin A, Hinshaw JR. Gastrointestinal foreign bodies. *Am J Surg.* 1981;142:335-7.
5. Yagmur Y, Ozturk H. Distal ileal perforation secondary to ingested foreign bodies. *J Coll Physicians Surg Pak.* 2009;19:452-3.
6. Madrona AP, Hernández JA, Prats MC, Riquelme JR, Paricio PP. Intestinal perforation by foreign bodies. *Eur J Surg.* 2000;166:307-9.
7. 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;187:710-4. doi: 10.2214/AJR.05.0178.
8. Maleki M, Evans WE. Foreign-body perforation of the intestinal tract: report of 12 cases and review of the literature. *Arch Surg.* 1970;101:475-7.
9. Pulat H, Karakose O, Benzin MF, Benzin S, Cetin R. Small bowel perforation due to fish bone: A case report. *Turkish J Emerg Med.* 2015; 15 : 136 - 8 . doi : 10.1016/j.tjem.2015.11.008.

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Conflict of Interest:

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