

## Case Report

# Laparoscopic Repair of Terminal Ileum Perforation by a Fish Bone: Case Report and Literature Review

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## INTRODUCTION

Fish bones are the most commonly entangled foreign bodies in the pharynx. In the gastrointestinal tract, fish bones have been found in various sites and are most commonly found in the esophagus. Fish bones are rarely reported to cause complications in the small bowel. We report the successful management of such a case by laparoscopic technique.

## CASE REPORT

A 55-year-old Egyptian male, without previous medical illness, presented to the Surgical Casualty Unit of Mubarak Al-Kabeer Hospital. He complained of a sudden onset of central abdominal pain, which shifted to the right side about 20 hours after the onset of pain. There was no associated vomiting, diarrhea or fever. On clinical examination, the patient was hemodynamically stable with a temperature of 37.5 °C. He was not jaundiced or anemic. Local examination of the abdomen showed signs of right-sided peritonitis. His WBC was 17000/mm<sup>3</sup> and Hb was 15 gm/dl. Plain X-rays of the abdomen and chest were not significant. Abdominal ultrasound reported normal findings. A diagnostic laparoscopy was performed, which showed right-sided peritonitis with minimal pus. The appendix was normal. Approximately 20-30 cm from the ileo-caecal junction, the terminal ileum was perforated at the antimesenteric border with a fish bone protruding through it (Fig. 1). A longitudinal entotomy was performed and the fish bone was retrieved (Fig. 2). Upon examination, the fish bone was 3.5cm in length with a broad base (Fig. 3).

The entotomy was closed by interrupted 3/0 vicryl (Fig. 4). A thorough peritoneal lavage was done with antibiotic solution (Gentamycin in normal saline). The patient was kept on intravenous antibiotics and was started on oral fluids 24 hours after surgery. He had an uneventful

recovery and was discharged on the 5th postoperative day. In retrospect, the last time the patient had eaten fish was four days back.

## DISCUSSION

Perforation of the gastrointestinal tract by ingested foreign bodies, such as fish bones, are rare and may occur at any site from the pharynx to the rectum<sup>[1]</sup>. Perforation is common in elderly people. Poor dentition, as well as mental disability, have been noted as predisposing factor<sup>[2]</sup>. In addition to its presentation in the gastrointestinal tract, several presentations, such as fish bone-induced esophageal perforation and mediastinitis, and liver abscess secondary to fish bone penetration of the gastric wall, have been noted. Cases of esophageal laceration, bleeding and transverse colon perforation were also seen in the literature<sup>[3-5]</sup>.

In a review of the literature, the time between eating the fish and the onset of complaints was not investigated. Additionally, the type of fish eaten varied from patient to patient and none of the cases



Fig. 1: Fish bone penetrating the antimesenteric border of the terminal ileum

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Fig. 2: Fish bone retrieved



Fig. 4: Closure of entrotomy

in the literature that went on to surgery were diagnosed preoperatively.

The diagnosis of a fish bone in gastrointestinal tract is not easy by use of conventional radiography, though ultrasonography may be helpful in detection



Fig. 3 The fish bone size

of complications. Ultrasound may also prove useful to diagnose cases of ingestion of foreign bodies other than fish bones<sup>6</sup>.

The present case demonstrates a rare cause of terminal ileum perforation induced by a fish bone, although conventional radiology and ultrasonography were not conclusive in diagnosing the peritonitis. A thorough history and diagnostic laparoscopy are useful tools in managing such cases. As far we are aware, this is the first reported case of fish bone injury to the bowel retrieved laparoscopically.

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