

Fish Bone Causing Ileal Perforation - A Case Report.

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Abstract

This case report details the diagnosis, management, and recovery of a 31-year-old Bangladeshi male who presented with acute abdominal pain following the ingestion of fish. A CT scan suggested a fish bone-induced perforation of the small bowel. The patient underwent conservative treatment, avoiding surgical intervention, and showed remarkable recovery. This report underlines the significance of clinical suspicion and imaging in diagnosing micro gastrointestinal perforations by foreign bodies and presents a successful instance of non-operative management.

Keywords: *foreign body perforation, ileal microperforation, non-operative management*

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I. Introduction

Ingestion of foreign bodies is a frequent clinical occurrence worldwide, with fish bones being one of the most common culprits, especially in regions where fish is a dietary staple [1]. Although the majority of ingested foreign bodies traverse the gastrointestinal tract without incident, a minority can lead to severe complications such as perforation, obstruction, or bleeding [2]. The management strategy for foreign body-induced gastrointestinal injuries varies, ranging from conservative treatment to surgical intervention, based on the nature and location of the foreign body, as well as the patient's clinical condition [3]. This case report elucidates the conservative management approach for a suspected fish bone-induced small bowel perforation in a young adult, aiming to contribute to the sparse literature available on non-surgical treatment outcomes for such cases.

II. Case Report

A 31-year-old male from Bangladesh was admitted with persistent right-sided abdominal pain that developed four days post-fish consumption. The pain, initially severe, was partially alleviated by over-the-counter analgesics. Despite the reduction in pain intensity, discomfort persisted, localized to the right hypochondrium, accompanied by a transient episode of low-grade fever. The patient denied experiencing nausea, vomiting, changes in bowel habits, or any other systemic symptoms.

Upon physical examination, the patient was stable, and afebrile, with mild tenderness noted in the right hypochondrium. The remainder of the abdominal examination was unremarkable, with no palpable masses, guarding, or rigidity. Bowel sounds were normal. Diagnostic imaging was pursued to elucidate the cause of his symptoms.

A computed tomography (CT) scan of the abdomen with contrast revealed significant fat stranding surrounding a segment of the ileum, containing a linear hyperdense material consistent with a fish bone, suggestive of a perforation. Notably, there was a small amount of free fluid adjacent to the affected bowel loop, but no clear free gas, mitigating the concern for a large perforation. The appendix and other intra-abdominal organs appeared normal on imaging. Fig 1 and 2.

Laboratory investigations showed a haemoglobin level of 14.3 g/dL, a white blood cell count of $10.65 \times 10^9/L$, and a C-reactive protein level of 54 mg/L, indicating an acute inflammatory process.

Given the patient's stable condition, absence of generalized peritonitis, and the contained nature of the suspected perforation, a conservative management approach was adopted. This consisted of intravenous antibiotics (Ciprofloxacin and Metronidazole) to cover gastrointestinal flora and analgesics for pain control. The patient's diet was initially restricted to liquids, gradually advancing as tolerated.

The patient's clinical course was closely monitored, with improvement noted over the following days. Pain and inflammatory markers decreased, and no complications developed. He was discharged in satisfactory condition after a week, with instructions to complete a course of oral antibiotics and analgesics. Follow-up visits confirmed the resolution of symptoms and normalization of laboratory parameters.

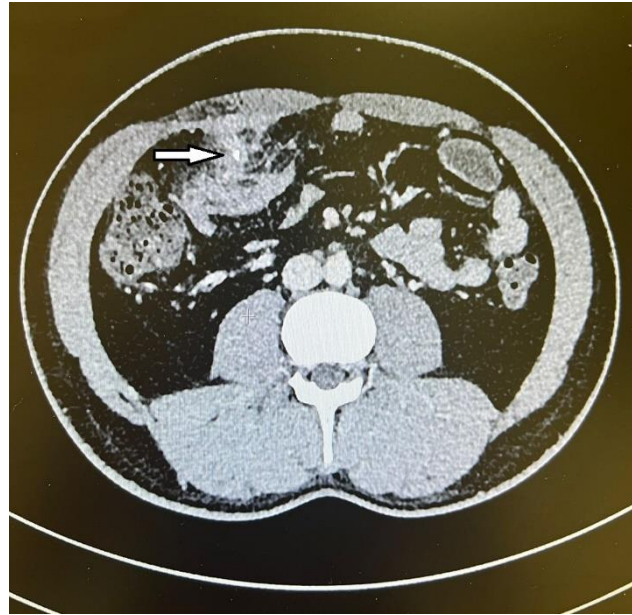


Fig 1. White Arrow At Foreign Body.



Fig 2. Circle Showing Phlegmon, Arrow Showing Foreign Body.

III. Review Of Literature

The literature reveals that conservative management of gastrointestinal perforations by foreign bodies, including fish bones, is a viable option under specific conditions. This approach is particularly feasible in cases without signs of generalized peritonitis, hemodynamic instability, or septic complications [4]. The rationale behind non-operative management includes the body's capability to localize the perforation, forming a contained abscess or phlegmon that can be treated with antibiotics [5].

A review of studies indicates that the success of conservative treatment largely depends on the size and nature of the perforation, the type of foreign body involved, and the timely initiation of appropriate antibiotic therapy [6]. Moreover, advances in diagnostic imaging have significantly enhanced the accuracy of identifying and localizing ingested foreign bodies, further supporting the decision-making process regarding management strategies [7].

The challenge remains in identifying which patients are suitable candidates for non-operative management, as the risk of overlooking a potentially serious complication exists. Current guidelines and expert

recommendations suggest that patients without evidence of diffuse peritonitis, ongoing haemorrhage, or intestinal obstruction may be considered for conservative management, with close clinical observation being imperative[8].

IV. Conclusion

This case highlights the importance of a thorough clinical and diagnostic assessment in managing suspected foreign body-induced gastrointestinal perforations. It underscores the potential of conservative management in selected cases, emphasizing the need for vigilant monitoring and appropriate antibiotic therapy. While surgical intervention remains a cornerstone in the management of gastrointestinal perforations, this case adds to the growing body of evidence supporting conservative treatment in specific scenarios. Future research should aim to better define the criteria for non-operative management, ensuring patient safety while avoiding unnecessary surgery.

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