

### Fish bone perforation causing right iliac fossa mass

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#### Introduction

The majority of ingested foreign bodies pass through the whole gastrointestinal tract without complications. However, a minority of those particularly sharp foreign bodies may cause problems. We present a patient with a right iliac fossa mass caused by a fish bone perforation at the jejunum.

#### Case Report

A 52 year old man presented with a gradual onset of right iliac fossa pain for a duration of one week associated with low grade fever and loss of appetite. He did not have nausea or vomiting. On examination, the patient was haemodynamically stable, but with localized tenderness in the right iliac fossa region. The patient's white cell count was 11,000 mm<sup>3</sup>. An ultrasound scan of the abdomen revealed a mass in the right iliac fossa region with a localized fluid collection suggestive of an appendicular mass. He was managed conservatively with intravenous antibiotics and he improved symptomatically. An ultrasound scan was performed two weeks later and revealed a mass which had not decreased in size. It was therefore decided to proceed with an exploratory laparotomy. Initial exploration revealed a mass formed by the omentum which was adhered to the jejunal loops. There was a thin long material piercing through the jejunum (Figure 1). The foreign body was removed and the micro-perforation was repaired. The foreign body was identified to be a fish bone (Figure 2). The patient was discharged well two days post-operatively.

#### Discussion

The majority of ingested foreign bodies pass through the whole gastrointestinal tract without complications, but a minority of those particularly sharp foreign bodies may cause problems. Fish bones usually perforate at acute angulations such as the ileocaecal junction and flexures of the colon [1]. It can even migrate to the liver if it perforates the hepatic flexure [2]. The clinical presentation of a patient secondary to fish bone perforation can be hugely varied [3]. They can present

with acute or chronic abdominal pain, gastrointestinal haemorrhage, intestinal obstruction or ureteric colic-like symptoms [4]. It does not cause gross peritonitis although it perforates the bowel as the process of migration is slow and healing starts concomitantly. Foreign body perforation is seldom diagnosed pre-operatively. Oral and intravenous contrast CT scans also have a limited value and hence it is important for physicians to keep in mind a foreign body perforation in patients with unexplained abdominal symptoms. As laparoscopy is used as an initial tool in patients with right iliac fossa pain, it can help in the initial diagnosis of this condition and prevent unnecessary morbidity due to a laparotomy.



Figure 1. Perforation of the jejunum.



Figure 2. Fish bone retrieved post-laparotomy.

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#### Key Points:

- It is important for physicians to keep in mind a foreign body perforation in patients with unexplained abdominal symptoms.
- Fish bone perforation sites will heal spontaneously without the development of features of peritonitis.
- Although rare, foreign body perforations may mimic acute appendicitis

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## Answers to images in surgery (from page 27)

1. This is a case of a bleeding jejunal gastro-intestinal stromal tumour (GIST). Tumours and vascular ectasias are a common cause of obscure bleeding in the small bowel in middle aged and elderly patients. Though rare, a GIST should be considered in these scenarios owing to their high vascularity and higher propensity to bleed as compared to other tumours. Immunohistochemically, these tumours usually stain positive for DOG1 and CD117.
2. MDCT Angiogram is the next investigation of choice in patients in whom a gastroduodenoscopy fails to localise the source of bleeding [4]. However, an MDCT angiogram may also miss the cause in cases of small bleeding GISTs. In this case the findings may only be some intraluminal hyperdensities or clots, as identified by gastroduodenoscopy.

A conventional angiogram, though in selected cases only, can be offered in cases of concealed intermittent bleeding of unidentifiable causes with the intent of angio-embolisation in the same sitting. Nevertheless, angio-embolisation carries its own complications such as bowel gangrene and a high chance of re-bleeding as these tumours are highly vascular. Hence surgical excision remains the mainstay of treatment in almost all GISTs.

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