

# Fishbone perforation of the gastrointestinal tract in patients with acute abdominal pain: diagnosis using plain film radiography

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## DESCRIPTION

Most foreign bodies (FBs) in the gastrointestinal (GI) tract pass spontaneously through it. However, 10–20% of patients require endoscopic removal, and approximately 1% will develop perforation of the GI tract requiring surgical intervention. CT is the method of choice for identifying ingested FBs.<sup>1</sup> However, because CT scanning can be time consuming, an abdominal plain radiograph (plain film) may be helpful in first-line screening of FBs with specific shapes, such as fish and chicken bones.<sup>2</sup> We report 2 cases of GI perforation by a clinically unsuspected fishbone which was detected by conventional plain film. The first case was a 58-year-old woman with acute diffuse abdominal pain of 1 day's duration. Plain film showed a linear calcified density, compatible with a fishbone, in the right abdomen (**figure 1A**). CT confirmed that a fishbone had perforated the small bowel on the right side (**figure 1B**). The second case was a 60-year-old man with a right lower abdominal pain of 1 day's duration. Plain film showed an FB resembling a fishbone in the right lower quadrant of the abdomen (**figure 2A**), which was confirmed by abdominal CT (**figure 2B**). Plain film radiography shows the specific shape of radiopaque objects, which helps clinicians to diagnosis FB induced GI perforation.<sup>3</sup> Patients with acute abdominal pain

often do not remember ingesting a fishbone, which further lowers the index of clinical suspicion. Indeed, neither of our patients remembered ingesting a fishbone. These two cases show that early presentation of bowel perforation due to the presence of a fishbone may be limited to non-specific abdominal pain. The only hint before CT confirmation was a linear, calcified lesion on plain film. Perforated bowel requires immediate surgery. Careful reading of plain films, before CT confirmation, from patients with acute abdominal pain might prevent delayed and missed diagnoses.

## Learning points

- ▶ CT is the method of choice for identifying ingested foreign bodies (FBs).
- ▶ Abdominal plain radiographs may be helpful in first-line screening of FBs with specific shapes.
- ▶ Patients often do not remember ingesting fishbones, which lowers the index of clinical suspicion. Careful reading of plain films, before CT confirmation, from patients reporting acute abdominal pain could prevent delayed and missed diagnoses.



**Figure 1** Abdomen plain radiograph showing a fishbone-like foreign body in the right abdomen (thin arrow) (A) and a CT scan showing a foreign body (fishbone) and perforation in the small bowel on the right side (B).



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**Figure 2** Abdomen plain film radiograph showing a fishbone-like foreign body (thin arrow) (A) and a CT scan showing a linear, high-density region in the caecum (arrow) and a small abscess (B).



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