Laparotomy for perforated small bowel from ingested paperclips

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DESCRIPTION

Eighty to 90% of ingested foreign bodies which reach the stomach will pass uneventfully through the gastrointestinal tract.^{1–3} One per cent may require a surgical procedure as 10% can be removed endoscopically.³ The risk of complications including perforation, obstruction and haemorrhage is increased with long sharp metal objects, and may be higher in patients with adhesions due to prior abdominal surgery.¹

Objects less than 6 cm in diameter can pass through the pylorus of the stomach and can theoretically cause small bowel obstruction and/or perforation.² This report describes a 22-year-old male prisoner who previously ingested steel paperclips deliberately straightened out before swallowing which subsequently caused small bowel perforation.

Post-ingestion, he reported of diffuse central abdominal pain and a conservative approach was taken initially using intravenous antibiotics and fluids. Three days after admission his pain worsened and a CT scan with contrast was performed. This showed paperclip penetration through small bowel loops, with a 2.5 cm collection in the small bowel mesentery deep to these clips.

A laparotomy was performed and multiple straightened paperclips were found extruding through the jejunal wall resulting in two entero-enteral fistulae and free perforation into an abscess cavity (see figures 1 and 2).

The collections were drained and all clips were removed using intraoperative X-ray imaging. The perforated segment of bowel containing the main mass of straightened paperclips was removed with small bowel reanastomosis (minimal peritoneal contamination). He was well enough for discharge 5 days later without any postoperative complications.

Figure 1 Straight rigid paperclips and perforated jejunum.

Figure 2 Plain radiograph showing multiple locations of paperclips in small bowel—main site of perforation.

Learning points

- ▶ Jejunal perforations are relatively rare.
- ▶ No generalised consensus of how to treat foreign body ingestion greater than 6 cm—paperclips 6.7 cm in length.
- ▶ Surgery may be indicated where sepsis develops in the presence of persistent foreign bodies in the small bowel.

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Contributors Mr Scott operated case. Operators: Mr Scott, AM, IM consent obtained by EW.

Competing interests None.

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