A CASE OF ENTEROLITH ILEUS

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A 78-year-old lady presented with abdominal pain and subsequent small bowel obstruction due to stone impaction. The patient had had a previous cholecystectomy making the many jejunal diverticulae the most likely source of the stone. This is a case of small bowel obstruction made distinctive by the cause of enterolith impaction.

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INTRODUCTION

Diverticulosis of the small bowel is a relatively common condition of little clinical significance. It is best known by the presence of Meckel's diverticulum – a congenital diverticulum arising from failure of embryonic obliteration of the vitelline duct connecting the fetal gut to the yolk sac. Other small bowel diverticulae are acquired occurring in the jejunum in 80-90% of cases, usually along the mesenteric border and lacking muscular layers[1].

The calculated incidence of small bowel diverticulosis, based on autopsy data, is found to be between 0.2% and 4.6%. The pathological consequences of these diverticulae include diverticulitis, haemorrhage, obstruction and malabsorption. Small bowel obstruction by enteroliths forming in and escaping from such diverticulae is a rare but recognised complication[1].

Enteroliths may form in narrow-necked diverticulae either *de novo* or around a nucleus of foreign matter, commonly either a fruit stone or piece of bone, and they may be classified as calcified or non-calcified. The usual bulk component is choleic acid, an end product of bile salt metabolism, with subsequent calcification occurring only in the more alkaline ileum[2]. Due to the relative scarcity of ileal diverticulae and so-calcified enteroliths, their presence is largely unknown on abdominal radiographs. The clinical presence of the enterolith is felt even less commonly than small bowel diverticulae and only then through the uncommon complications of diverticulitis, haemorrhage from pressure necrosis and small bowel ileus.

Diagnosis of enterolith ileus is thus most commonly made at laparotomy through the combined presence of obstruction, stone, a normal gallbladder (to exclude gallstone ileus) and small bowel diverticulae[2].

CASE REPORT

A 78-year-old lady presented with a seven-day history of colicky lower abdominal pain and several episodes of bilious vomiting. During this period her bowels had opened several times with the passage of loose stool only. She had a known history of cholecystitis, for which she had undergone cholecystectomy 12 years previously. She appeared dehydrated and was pyrexial with a temperature of 38.4 degrees. She displayed lower abdominal tenderness, with an absence of rebound and guarding and an unremarkable digital rectal examination. Blood tests revealed a white cell count of 12.8 x 10^9/L and a C-Reactive Protein of 109 mg/L without other abnormality. A plain abdominal film demonstrated a prominent loop of small bowel but no evidence of subacute obstruction. Conservative treatment for a presumed case of diverticulitis was initiated for several days followed by a further episode of acute abdominal pain accompanied by further vomiting and an absence of flatus. Plain abdominal radiography now showed multiple loops of dilated small bowel consistent with obstruction. Urgent computerised tomography (CT) scans revealed dilated small bowel, extensive small and large bowel diverticulae and an abnormal section of bowel in the right iliac fossa.

Figure 1 Stone removed from the proximal ileum of the patient

At laparotomy, the presence of extensive diverticulosis was confirmed and a stone was found impacted at the proximal ileum. The stone (figure 1), approximately 2.5 x 3.5 cm, appeared brown and hard and was removed by a small enterotomy close to it. The patient made an uneventful postoperative recovery. Analysis of stone in the gastro-intestinal tract is not routine in Morecambe Bay Health Trust, but on discussion at the gastro-intestinal weekly meeting and with the pathology department at the Royal Lancaster Infirmary (RLI), it was agreed that the most likely source of the stone, in the event of the patient's previous cholecystectomy, was from one of the many jejunal diverticulae.

DISCUSSION

Due to the rarity of such cases, no formal guidelines for dealing with enterolithiasis exist. The most commonly adopted strategy is laparotomy; however, some authorities advocate a first line approach of manual lysis of the stone without enterotomy and to milk the smaller parts into the colon to be passed *per rectum,* subsequently followed by enterotomy if this proves impossible or inappropriate[3].

REFERENCES

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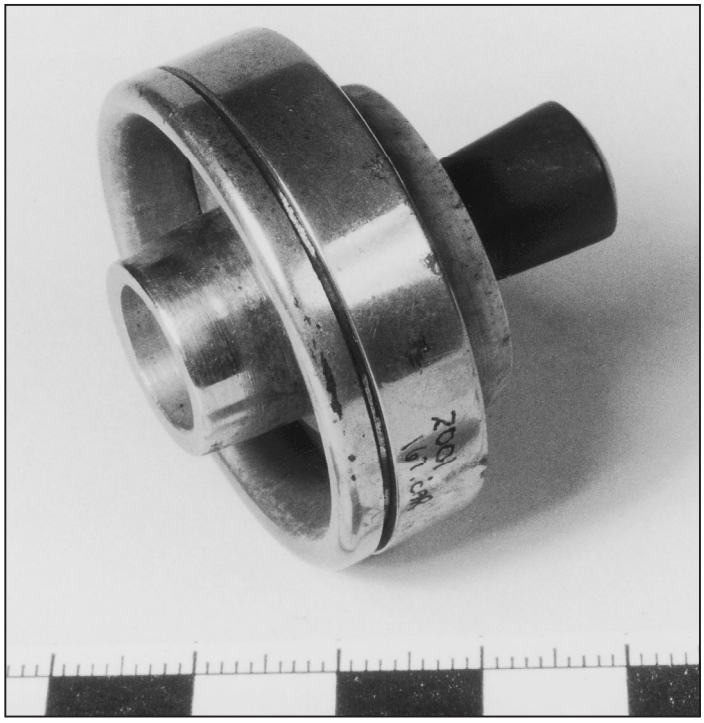

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