

# A new approach in the treatment of faecaloma of the colon

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### INTRODUCTION

This article reports a case of large bowel obstruction secondary to a faecaloma, which was successfully managed without the need to resort to laparotomy.

Left untreated, large bowel obstruction from a faecaloma can lead to ster-coral ulcers and perforation at the site

of the obstruction, or perforation in the proximally-dilated large bowel in cases of competent ileocaecal valves.

### DISCUSSION

Faecaloma of the colon is an unusual condition that can present as an interesting diagnostic and therapeutic problem. Faecal impaction is incomplete

evacuation of faeces for an extended time and the term faecaloma is applied when faecal matter stagnates and increases in volume until the intestine becomes deformed and the mass acquires characteristics of a tumour (Dresen and Kratzer, 1959).

Two factors acting together are responsible: the intestine and the contents. As the contents fail to progress, the liquid component is absorbed and the remnants move more slowly. The slower the movement the greater the dehydration; the faeces harden and conditions required for adherence to the foreign body are established, giving rise to faecalomas (Casal, 1955).

Factors that predispose to the formation of faecalomas, include mechanical obstruction, megacolon, a foreign body or gallstone that becomes the nidus of the faecaloma, decreased mucus production, previous barium enema examination, strictures following inflammatory disease of the colon, treatment with drugs known to produce constipation (such as tranquilizers, especially in mental patients), and prolonged bed rest with poor bowel habits (Lasser et al, 1975). None of these factors were identified in this patient and no strictures were found on two subsequent colonoscopies.

A review of the literature by Freud et al (1955) showed that the most common site for faecalomas was the sigmoid colon, although they may rarely be found in the caecum or even in the small intestine. There are sev-

### CASE REPORT

A 43-year-old woman presented with a 12-hour history of colicky abdominal pain increasing in severity and frequency. There was nausea but no vomiting. She last opened her bowels and passed flatus 48 hours before and otherwise had no history of constipation. There was no recent change in bowel habit and no blood or mucus per rectum. There had been no systemic disturbance and there was no family history of malignancy of the large intestine. The only surgical history was an appendicectomy performed at the age of 39 years. There was no relevant medical history.

On clinical examination, the patient was afebrile, normotensive, tachycardic and distressed. The abdomen was distended and tympanic but with no signs of peritonism. There was a palpable non-tender mass in the left lower abdominal quadrant. Her basic haematology and biochemistry were unremarkable; plain radiography of the chest showed a right basal pleural effusion with some patchy collapse at the right lung base. Erect and supine abdominal radiographs showed severe distension of the colon with only slight dilatation of the small intestine and multiple fluid levels. A computed tomograph examination of the abdomen and pelvis (Figure 1) showed free fluid in the pelvis and a small amount of inflammatory change in the fat of the abdominal cavity. There was extensive dilatation of the large intestine, with only slight dilatation of the small intestine. The appearances were consistent with a distal large bowel obstruction with an essentially competent ileocaecal valve. A large faecal sphere was shown in the sigmoid colon, which appeared rather thick-walled. There was no evidence of free peritoneal gas. A gastrografin enema showed a rounded filling defect in the upper sigmoid colon.

Following a period of resuscitation, the patient was taken to theatre for colonoscopy to exclude a malignant or benign stricture and to attempt to disrupt the faecaloma to relieve the large bowel obstruction and avoid proximal and/or local perforation. The procedure was performed under general anaesthetic with the patient in the lithotomy position and with an arrangement to proceed to laparotomy should the colonoscopy procedure fail. Colonoscopy showed a faecal mass 55 cm from the anal verge, which proved resistant to all attempts at dislodging and disruption. A size 18F nasogastric tube (NGT) was inserted under direct vision through the anus and past the faecal obstruction (Figure 2). The proximal large intestine was successfully decompressed with the NGT. Liquid paraffin 200 ml was injected proximal to the faecaloma. In the post-procedure period, care was taken to keep the lumen of the NGT clear by an occasional injection of normal saline (30 ml hourly) to ensure free drainage. The catheter was left *in situ*. The patient was returned to theatre the next morning for a repeat colonoscopy. On this occasion the faecal mass was noted to be slowly showing signs of fragmentation and softening (Figure 3). Vigorous saline irrigation completely disrupted the mass with relief of the obstruction. There was an area of superficial ulceration at the site of the impaction but no evidence of a benign or neoplastic stricture.

Subsequent colonoscopy 3 weeks later showed no abnormalities, with the superficial ulceration completely healed and benign biopsies.

The patient remains well 6 months after the episode and has increased her fibre intake and now exercises regularly.

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eral possible explanations for the greater frequency of stercoraceous ulceration and perforation of the left colon: the pressure or surrounding structures does not permit adequate distension of the rectosigmoid; faecal material is of a harder consistency in the left colon; and the lumen of the bowel in the region of the rectosigmoid is much narrower than that of the right colon (Lasser et al, 1975). The size of faecalomas vary, but they are usually large with an inconstant composition (faecal matter and intestinal debris). The faecaloma is often formed in a laminated fashion,

as a result of deposits of calcium soaps in layers.

Faecalomas can cause stercoral ulceration, rectal bleeding, anaemia from chronic blood loss, large bowel obstruction and perforation of the colon (Serpell and Nicholls, 1990). Stercoral perforation carries a mortality rate as high as 22.2% (Bielecki et al, 2002). Fortunately this is rare, despite a 4.6% incidence of stercoral ulceration in a study of 175 autopsies (Grinvalsky and Bowerman, 1959).

Perforation can occur locally as a result of ischaemic pressure necrosis of the bowel wall (Carter and Kirkpatrick,

1973), or proximally from an obstructed, dilated colon in cases of competent ileocaecal valves. This situation gives rise to closed loop obstruction and subsequent perforation of the large bowel, with resultant faecal peritonitis. The caecum is the most likely site of perforation, as the wall is thin and the diameter of the bowel at this location is greater than that of the other segments of the colon, so the tension is greatest.

Decompression of the proximally-dilated closed loop of colon, in this case was achieved by introducing a large size nasogastric tube under direct vision during colonoscopy. At the same time, softening of the faecaloma was carried out by introducing liquid paraffin, which acts by penetrating into the faecal mass to cause softening. The proximal decompression and softening gives time for resuscitation without the urgent need for an immediate laparotomy, avoiding the high associated morbidity and mortality. The decompression procedure carries the risk of perforation during the introduction of the tube, but the risks are minimized under direct vision. The procedure should be performed in theatre with arrangements for laparotomy should the intervention fail or complications arise.

In this patient, the tube was successfully inserted (*Figure 2*), the bowel decompressed and the faecaloma softened (*Figure 3*), with disruption and relief of the obstruction. **HM**

Figure 1. Computed tomograph showing large faecal sphere (arrow) lying in the sigmoid colon.

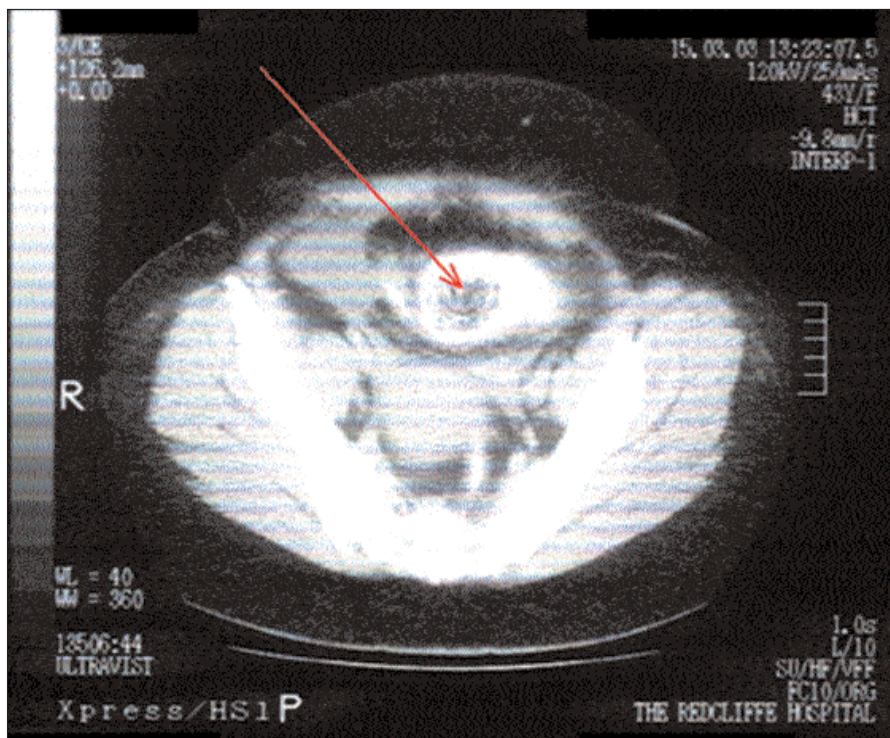


Figure 2. A size 18F nasogastric tube inserted past the faecaloma.

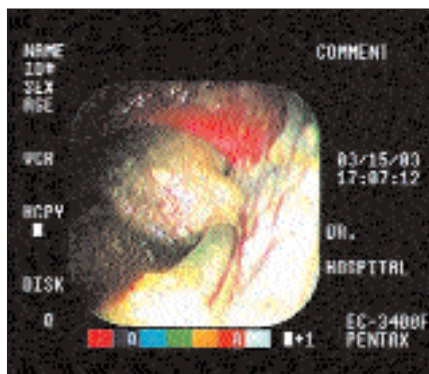
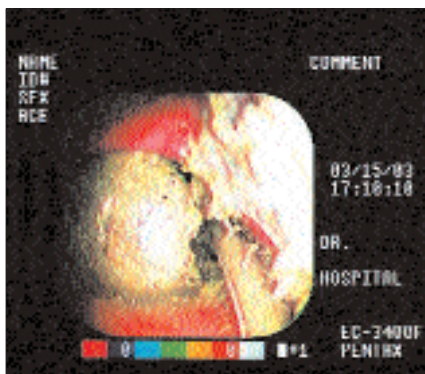


Figure 3. The faecaloma showing signs of fragmentation and softening by the next morning.



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