

## Case 61

# A painful distended abdomen in an old man

An 84-year-old retired labourer, a widower, living in a retirement home, was sent into hospital as an emergency by the home's visiting medical officer. The patient gave a history of 3 days of severe generalized abdominal pain, during which time his belly had become grossly swollen. He had not had his bowels open since the start of this episode, nor had he been able to pass flatus. He had not vomited but now felt nauseated and was anorexic.

Previously he had had normal daily bowel actions, with no blood or slime. His weight was steady. He had arthritis of both hips and walked with a stick, had mild prostatic symptoms and a smoker's cough.

On examination his temperature was 37.2°C, pulse 98 and blood pressure 170/90. He was in obvious pain, rather dehydrated, with a dry tongue, but was pretty fit for his age. His fingers were tobacco stained and there were adventitious sounds at both his lung bases. The abdomen was grossly distended and uniformly tender, but there were no scars of previous surgery and the hernial orifices were clear. No masses could be felt in the abdomen and there was no clinical evidence of free fluid. Rectal examination revealed an empty rectum with smooth enlargement of the prostate.

### **This scenario is typical of an acute intestinal obstruction. Which would be more likely in this case, obstruction of the small or large bowel?**

There is no evidence of a previous abdominal operation (as in Case 58, p. 117), nor evidence of a strangulated external hernia – by far the two most common causes of an acute small bowel obstruction in the UK. Obstruction of the small intestine is usually accompanied by early and profuse vomiting, whereas this tends to be late, or indeed absent, in large bowel obstruction. Because of the size of the large bowel, distension of the abdomen is usually marked.

Clinically, therefore, the picture here suggests a large bowel, or 'low' obstruction.

The patient was reassured, given analgesia for his pain, had a nasogastric tube passed, which aspirated 300 ml of greenish fluid, and had an intravenous line inserted. He then had an X-ray of the abdomen performed while in the supine position (Fig. 61.1).

### **What does the X-ray demonstrate and what is now the likely diagnosis?**

There is an enormously distended oval gas shadow, looped on itself to give the typical 'bent inner-tube sign'. The haustrae do not extend across the width of the gas shadow, suggesting that this is large intestine (compare Case 58, p. 117). These appearances are quite typical of volvulus of the sigmoid colon.

### **This emergency is relatively uncommon in the UK. In which parts of the world is it much more often encountered? Are there any precipitating factors?**

Volvulus of the sigmoid colon is commoner in Russia, Scandinavia and Central Africa. Patients tend to be elderly, and men are affected four times more often than women.

Precipitating factors include:

- An abnormally mobile loop of bowel.
- An abnormally loaded loop of bowel – for example, the sigmoid colon in chronic constipation.
- A loop of bowel with a narrow base.
- A loop of bowel fixed at its apex by adhesions.

Note that, although the sigmoid colon is the commonest site to be affected, volvulus of the caecum, small intestine, stomach and gallbladder may all occur.

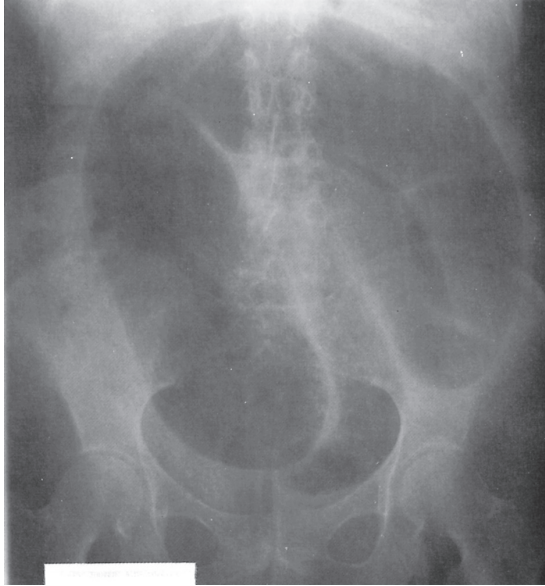


Figure 61.1 Supine X-ray of the abdomen.

**What is the conservative measure that is effective in treating the majority of patients with volvulus of the sigmoid colon?**

A sigmoidoscope is passed with the patient lying in the left lateral position. A large well lubricated, soft rectal tube is passed along the sigmoidoscope. This usually untwists the volvulus, especially in early cases, with the escape of vast quantities of flatus and liquid faeces. In fit patients it may be advisable to carry out an elective resection of the redundant sigmoid loop in order to prevent recurrence of the volvulus.

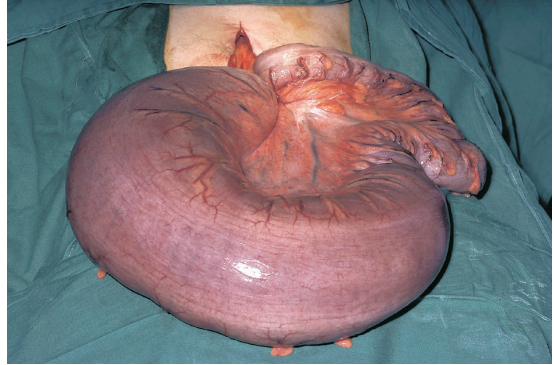


Figure 61.2 Operative photograph showing the hugely distended loop of the sigmoid colon.

**This was tried in the present case, but did not succeed. Left untreated, of course, the loop of sigmoid, with its blood supply cut off by the torsion, would undergo necrosis, so what was the next step in managing this patient?**

He was taken to theatre, and under a general anaesthetic the abdomen was opened through a lower midline incision. Figure 61.2 shows the enormously distended and volved sigmoid loop.

The volvulus was untwisted. A rectal tube, which had been placed in the rectum after the patient had been anaesthetized, was then manipulated into the sigmoid loop to evacuate its flatus and faecal contents. A decision was then made to go ahead and resect the redundant sigmoid loop with immediate anastomosis, this being based on the general fitness of the patient.

The alternative would have been either to defer definitive resection to a second operation, or perform a resection but bring the cut ends out as a double-barrelled colostomy. Apart from a relatively mild episode of post-operative pulmonary collapse (see Case 1, p. 4) the patient made a good recovery.