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Acute colonic pseudo-obstruction after caesarean section

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Abstract Acute colonic pseudo-obstruction (ACPO), also known as Ogilvie's syndrome, is a rare condition associated with massive dilatation of the colon in the absence of any mechanical obstruction. Between 4 and 35% of all reported cases of ACPO have occurred in association with pregnancy or puerperium, with most of these occurring after caesarean sections. We present a case report of the successful management of a patient with ACPO.

Keywords Ogilvie's syndrome · Post-operative complication · Pregnancy complications · Pseudo-obstruction

Case report

A 40-year-old woman was booked into our unit during her ninth pregnancy. Her earlier pregnancies had ended with eight normal deliveries and one spontaneous miscarriage. With the exception of a mild asthma and penicillin allergy, she had no significant medical, surgical or family history of note. In the index pregnancy, she had an unremarkable antenatal course.

She was admitted to the delivery suite at term in early labour with spontaneous rupture of the membranes. An emergency caesarean section was carried out due to the development of suboptimal cardiotocographic (CTG) readings in the first stage of labour. The procedure was uneventful, with the delivery of a male infant. Sterilization

was carried out at the same time in accordance with the patient's antenatal request.

On the third post-operative day, the patient complained of generalized moderate abdominal pain and distension. She was pale and had low-grade pyrexia. There was generalized abdominal guarding as well as rebound tenderness in the right hypochondrium. Intestinal sounds were audible. She had not had opened her bowels for the first 2 post-operative days after which she developed diarrhoea.

Full blood count, liver function tests, serum electrolytes and renal function tests were within the normal ranges except for a low haemoglobin of 8.1 g/dl. An ultrasound scan showed minimal ascites and a distended ascending colon (7 cm in diameter). An abdominal X-ray (Fig. 1) showed a hugely enlarged caecum, colon and ileum with no mucosal oedema (diameter >9 cm)

The patient was placed nil by mouth and a nasogastric tube inserted. Two units blood were transfused. Bacteriology samples of blood, urine, stool and wound samples were taken and an antibiotic regimen was started consisting of intravenous cefuroxime and metronidazole. Following a combined surgical and obstetric review, a laparotomy was decided upon.

A midline laparotomy revealed that both the small and large intestine were significantly dilated. There was no obvious obstructing lesion. The small intestine was decompressed into the caecum. The procedure consisted of decompressing the caecum via a caecostomy tube.

Immediate post-operative care was undertaken in the intensive care unit until the third post-laparotomy day at which time the patient was transferred to the high-dependency unit. She made a good recovery, and the caecostomy tube was removed 15 days after the laparotomy. She was discharged on the 20th post-laparotomy day.

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Discussion

Acute colonic pseudo-obstruction, also known as Ogilvie's syndrome, is a rare condition associated with massive



Fig. 1 X-ray of the abdomen shows an enlarged caecum and ileum

dilatation of the colon in the absence of any mechanical obstruction. It was first described in 1948 by Sir Heneage Ogilvie [1]. Between 4 and 35% of all reported cases of ACPO have occurred in association with pregnancy or puerperium, with most of these occurring after caesarean sections.

The pathogenesis of ACPO is poorly understood. The presentation is usually within the first 3–5 post-operative days. Clinical symptoms include colicky abdominal pains and constipation. However, some patients may continue to pass flatus and liquid stool [2]. Nausea and vomiting are present in only 25% of the cases, in contrast to a more common incidence with paralytic ileus.

Physical findings include abdominal distension and tenderness. Normal bowel sounds are usually present.

The risk of mortality with ACPO rises dramatically with spontaneous perforation of the colon and can reach up to 35–72% [2, 3]. Colonic perforation usually occurs within 2 days of the onset of the condition. The presence of

abdominal tenderness and fever should raise the suspicion of impending caecal perforation.

Abdominal X-ray is the corner stone in the diagnosis and management of ACPO. It usually shows the colon to be dilated, and the gas pattern has a sharp cut-off. The colonic mucosal pattern is retained. Contrast enema can also be used for the diagnosis of ACPO. However, it carries the risk of barium contamination of the peritoneal cavity if perforation does occur. Consequently, contrast enema is contraindicated in the presence of any signs suggestive of impending caecal perforation.

The aim of the management is to avoid bowel perforation. Conservative management, aiming for spontaneous resolution, is suitable for early cases in which the diameter of the colon is less than 9 cm, and includes supportive care, correction of any underlying disease, stoppage of oral intake, insertion of nasogastric tube, intravenous fluid infusion and correction of any electrolyte abnormality. A supine position and opiate and anticholinergic drug use should be avoided. Repeated clinical assessment as well as repeated X-rays should be undertaken to detect early signs of impending perforation.

If the caecal diameter is greater than 9–12 cm or the conservative management approach fails, surgical intervention is indicated [2].

Colonoscopy can be used for the diagnosis and management of ACPO. This procedure is helpful in excluding mechanical obstruction, decompressing the dilated colon and in placing a rectal tube to minimize the risk of recurrence.

In the absence of the necessary facilities or the expertise to perform colonoscopic decompression or in the presence of an extremely thin colon wall, laparotomy and tube caecostomy is the procedure of choice to decompress the distended colon. Caecal resection or hemicolectomy are rarely needed, and then only in the presence of extensive necrosis or extensive perforation.

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