SAJS

Case Report

Sigmoid volvulus in pregnancy

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Summary

A 27-year-old woman, gravida 1, was seen at our surgical emergency department with abdominal pain at 25 weeks' gestation. She had pain, nausea and vomiting, a temperature of 37°C and a blood pressure of 100/70 mmHg. The cervix was closed, and an ultrasound scan showed a normal single fetus. A plain abdominal radiograph showed distension of the colon and a sigmoid volvulus. At emergency laparotomy, non-gangrenous sigmoid colon was resected with primary anastomosis. There were no complications, and 4 months later the patient delivered a healthy infant.

Early diagnosis of sigmoid volvulus in pregnancy and prompt intervention minimise maternal and fetal morbidity and mortality.

Sigmoid volvulus in pregnancy is rare and serious, with an incidence between 1/1 500 and 1/66 000 deliveries.[1] Choice of treatment depends on the duration of pregnancy, the state of the sigmoid colon, and resources available.[2] Early diagnosis and prompt intervention minimise maternal and fetal morbidity and mortality. We report on a case treated successfully in the Department of General Surgery at Gabriel Touré, a teaching hospital in Bamako, Mali.

A 27-year-old woman, gravida 1, was seen at 25 weeks' gestation complaining of pain, nausea, vomiting and no stool or flatus for the previous 48 hours. There was no vaginal discharge, and she had had no previous problems. She was not in shock, the abdomen was distended but there was no uterine contraction, the uterine height was 20 cm, and the cervix was closed. An ultrasound scan showed a normal single fetus. A plain abdominal radiograph showed a distended colon and sigmoid volvulus (Fig. 1). At emergency laparotomy, a non-gangrenous sigmoid was resected, with primary anastomosis (Fig. 2). The patient received salbutamol (1 mg/8 h) rectally over a 72-hour period. She made an uneventful recovery and was delivered of a healthy infant 4 months later.

Bowel obstruction in pregnancy is rare, most frequently being caused by sigmoid volvulus and adhesions. Only 76 cases of volvulus in pregnancy have been reported worldwide.[2] An increase in uterine volume is implicated in the formation of the volvulus.[3] Sigmoid volvulus is most frequent between 22 and 38 weeks' gestation.[2] The diagnosis is based on clinical and radiological signs. Unfortunately, standard radiography is often necessary for the diagnosis of volvulus. It involves a radiation dose of 0.001 Gy, and a dose of 0.01 Gy is dangerous, with a 1/1 000 risk of congenital malformation.[4]

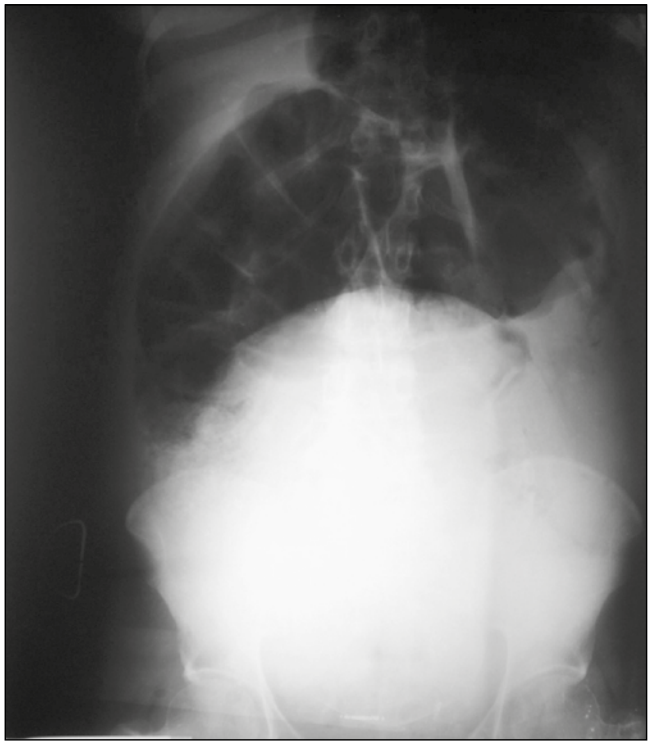

Fig. 1. Plain abdominal radiograph showing sigmoid volvulus in pregnancy.

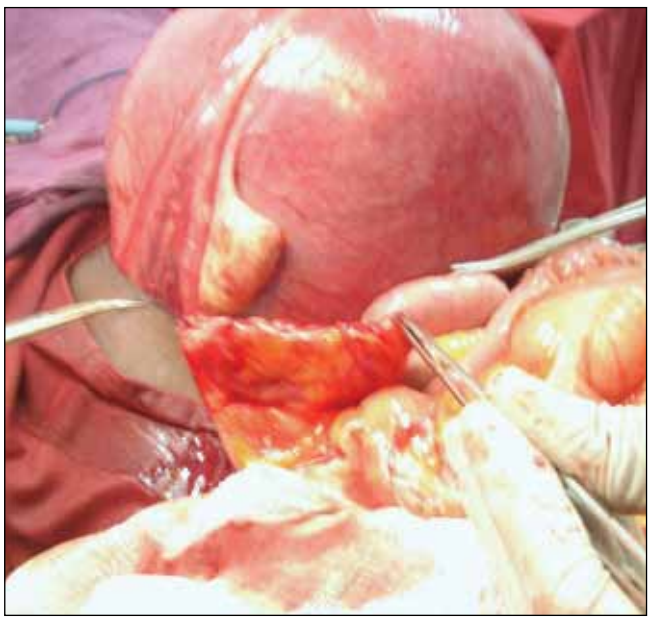

Fig. 2. Sigmoid volvulus in pregnancy – resection and anastomosis.

The aim of surgical treatment is to remove the obstruction without a risk of recurrence. In the absence of peritonitis and during the second trimester of gestation, Utpal and Kamal preferred detorsion by mini-laparotomy,[5] while Diallo *et al.* justified the choice of intestinal resection by elimination of the risk of recurrence and reduction of morbidity and mortality.[6] Given the impossibility of non-operative detorsion in Mali and the high risk of recurrence (13.5% in 30 days after intervention),[6] we carried out a sigmoidectomy with anastomosis. This approach has also been recommended in the second trimester of gestation by other authors.[4] The outcome was good for both mother and fetus. According to Twité *et al.*, bowel obstruction during the second trimester of pregnancy is associated with a 36% fetal mortality rate.[4]

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