A Case of Large Bowel Obstruction Secondary to Twin Pregnancy

A 35yr old primiparous woman with a dichorionic diamniotic twin in-vitro fertilisation pregnancy presented at 36+5 weeks gestation with severe generalised abdominal pain and distension. Bowels had not opened for three days and she was not passing flatus. She was nauseated and had vomited once. She reported no vaginal loss and fetal movements were felt.

The pregnancy had been uncomplicated. She has a body mass index of 20.1, was a non-smoker, had no past medical or surgical history of note and serial growth scans showed both fetuses on the 50th centile.

On examination maternal observations were normal. The abdomen was markedly distended and tympanic, the uterus was not easily palpated. Tinkling bowel sounds were audible. On vaginal examination the cervix was closed, the rectum was loaded with faeces. Cardiotocography was reassuring for both fetuses. On transabdominal ultrasound the uterus was obscured by gas.

A clinical diagnosis of large bowel obstruction was made and she underwent exploratory laparotomy and delivery by Caesarean section. A transverse lower abdominal incision was used, delivery of the twins was uncomplicated and both were born in excellent condition.

Following delivery the bowel was inspected by the general surgeon. The colon was grossly dilated from the caecum to the distal sigmoid at the pelvic brim, beyond which the rectum was collapsed. No serosal tears were identified. There was no evidence of volvulus. The bowel obstruction was felt to be secondary to compression of the gravid uterus at the pelvic brim in combination with faecal loading. An examination of the rectum was performed post section, no rectal abnormality was detected and faeces were evacuated from the rectum.

Post-operatively the patient received regular phosphate enemas, however the following day her condition was unimproved. Imaging with computerised tomography was performed confirming ongoing compression of the colon by the involuting uterus at the level of the pelvic brim and demonstrated no other pathology. She was managed conservatively and by day 5 her bowels were moving normally and she was discharged home.

Discussion

Bowel obstruction during pregnancy is rare, occurring in 1 in 2500 to 1 in 3500 pregnancies (Sharp,2002). It is estimated that 70% are secondary to adhesions, 25% volvulus, with malignancy, hernia and intussusception constituting the remainder. Bowel obstruction secondary to the gravid uterus itself is exceptionally rare, with the literature primarily limited to historical case reports (Ludwig 1913, Blair, 1932). More recently an isolated case of a rotated uterus causing large bowel obstruction at 33 weeks gestation was reported (Gonzalez-Mesa et al, 2013).

The presentation of bowel obstruction is the same as in the non-pregnant population with most patients reporting colicky abdominal pain, distension, obstipation and vomiting. Diagnosis may be made clinically. Plain radiographs of chest and abdomen will reveal the diagnosis in 75% of cases but radiographs following administration of oral contrast may be required (Sharp, 2002). The risk to the fetus from ionising radiation should be balanced against the risk of misdiagnosis.

Conservative management may be achieved with fluid replacement and decompression via a nasogastric tube. Surgical management will depend on the severity of condition and gestation. This can be achieved with or without concurrent delivery although delivery may be required to gain access or where there are concerns over fetal wellbeing.

Bowel obstruction in pregnancy has been associated with high maternal and perinatal mortality and morbidity, with one review of 66 cases reporting a mortality rate of 6% and 26% in the mother and fetus respectively. Bowel resection secondary to strangulation was required in 23% (Perdue et al 1992).

Educational Message

Bowel obstruction is a rare but important cause of abdominal pain in pregnancy. Prompt recognition and treatment is required to avoid the significant morbidity and mortality associated with the condition.

References

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