CASE REPORT

Strangulating Ileocolic Intussusception in Pregnancy

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Introduction

Intestinal obstruction in general, and intussusceptions in particular, is an uncommon clinical event which may complicate pregnancy with significant maternal and fetal mortality. We report a case of strangulating ileocolic intussusception during pregnancy at 22 weeks of gestation and its successful management. The usefulness of ultrasound in early diagnosis of intussusception in pregnancy is briefly discussed.

Case Report

A 28-year-old second gravida woman at 22 weeks of gestation presented with severe abdominal pain and bile-

stained vomiting of 2 days' duration. Her previous pregnancy was carried to term and the delivery was conducted at home. Her general examination was normal. On abdominal examination, the uterus was 22 weeks' size. However, there was a palpable tender, sausage-shaped slightly mobile lump in right lumbar area measuring 8×8 cm with concavity toward the umbilicus. There was no demonstrable ascites, but the bowel sounds were sluggish. Pelvic examination revealed normal vulva and vagina. The cervix was healthy with closed os. The rectum was empty and the examining finger was stained with blood and mucus. Her routine hematologic and biochemical investigations were normal. Abdominal ultrasound revealed a thickened bowel wall with a target sign and free peritoneal fluid (Fig. 1). The uterus contained a viable fetus with the gestational age of 22 weeks and 3 days. Emergency laparotomy was performed under general anesthesia and within 6 h of admission by right paramedian incision. At laparotomy, there was ileocolic intussusception which was reduced (Fig. 2). However, there was gangrene of 15 cm of ileum, 50 cm proximal to ileocecal junction. The gangrenous segment was excised and end-to-end four-layered anastomosis was done by 3–0 mersilk. The abdomen was closed in layers after keeping a drain in the right flank. The excised specimen on cutting revealed an ileal polyp as the lead point of intussusception. On the seventh postoperative day, the patient developed low-output fecal fistula which was managed conservatively by intravenous amino acids, broad-spectrum antibiotics, and fresh frozen plasma. The patient was subsequently discharged on the

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Fig. 1 Ultrasound showing bowel wall thickening, target appearance on transverse scan with free peritoneal fluid

13th postoperative day to be followed in antenatal clinic. The patient normally delivered a healthy baby at term.

Discussion

The incidence of bowel obstruction in pregnancy is 1 in 3,000 [1]. About 60 % cases are caused by adhesions, 25 % are the result of volvulus, and less than 5 % are because of intussusception [2–4]. Intussusception (invagination of one part of bowel into another) is primarily a disease of infants and children with no organic lesion; however, in adults, it is usually associated with a lead point as polyp in the present case.

The risk of bowel obstruction is the highest during rapid changes in uterine size in relationship to a previous scar or bowel (a) in the early portion of the second trimester when the uterus changes from being a pelvic to an abdominal organ, (b) in the late third trimester when the fetal head descends into the pelvis, and (c) in the puerperium [1–4].

Fig. 2 Intraoperative photograph showing ileocolic intussusception with gravid uterus

The early diagnosis of intestinal obstruction during pregnancy may be delayed because the classical symptoms of abdominal pain, vomiting, and constipation are common complaints and liable to be overlooked or passed off as normal discomfort of the pregnant state. The gravid uterus can mask the abdominal distension of intestinal obstruction. This may result in high maternal (6 %) and fetal (26 %) mortality [1]. Severe or persistent abdominal pain and vomiting should alert the consultant to look for other etiologies.

In the present case, the classical triad of intussusception pain, vomiting, and rectal bleeding was present. The sausage-shaped mass with concavity toward the umbilicus further augmented the preoperative clinical diagnosis. Ultrasonography is a good screening modality for the diagnosis of intussusceptions. Though the “target” sign is non-specific in the current clinical situation, it is suggestive of intussusceptions. The “multiple concentric rings” sign is specific, but not often seen. This sign represents the interfaces of the overlapping bowel walls and lumina [5]. In the present case, abdominal radiography or computed tomography was not done and we feel that it is not necessary. In addition, it eliminates the hazards of radiation. We agree with the view of Abdul et al. [2] that ultrasonography should be recommended as part of the investigation protocol for all suspected cases of intestinal obstruction in pregnancy. Maternal and fetal morbidities from intestinal obstruction are greater in the third trimester or when strangulation or perforation occurs. In the present case, small bowel strangulation was present and in the postoperative period, the patient developed low-output fecal fistula which was managed conservatively.

In summary, the surgical management of intussusceptions is usually similar to the non-pregnant state. The combined expertise of the obstetrician, radiologist, and surgeon are needed to manage the pregnant patient. Although relatively rare, intussusceptions should be included in the differential diagnosis of bowel obstruction in pregnancy.

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