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Case Report

Sigmoid volvulus in pregnancy: a rare case

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ABSTRACT

Sigmoid volvulus in pregnancy is an extremely uncommon condition, with only 84 cases to have been reported in the English literature. Sigmoid volvulus is the most common cause of bowel obstruction complicating pregnancy, accounting for up to 44 per cent of cases. Overall bowel obstruction in pregnancy varies from 1 in 1500 to 1 in 66,431 deliveries. Intestinal obstruction in pregnancy can be caused by many factors including congenital or postoperative adhesions, volvulus, intussusceptions, hernia and appendicitis, history of intestinal tuberculosis. Patient presented with acute onset abdominal distension associated with multiple episodes of vomiting. When history and clinical examination was suggestive of acute abdomen, diagnosis was confirmed with imaging modalities like abdominal ultrasound, CT (Computerized tomography) scan. Sigmoid volvulus is a surgical emergency and is to be treated promptly. Here we presented a case report on sigmoid volvulus in third trimester pregnancy which was managed by emergency exploration.

Keywords: Sigmoid volvulus, Intestinal obstruction in pregnancy, Acute abdominal distension in pregnancy

INTRODUCTION

Sigmoid volvulus in pregnancy is extremely rare entity with moderate maternal and fetal morbidity. Sigmoid volvulus is a common cause of intestinal obstruction in pregnancy.[2] Other causes of acute bowel obstruction in pregnancy includes paralytic ileus, intra-abdominal adhesions due to previous surgeries.[5]

Patients usually present as acute onset abdominal distension, multiple episodes of vomiting. Diagnosis is based on clinical examination and radiological imaging.

X-ray erect abdomen and computerized tomography shows dilated large bowel with coffee bean appearance. Prompt exploratory laparotomy can preserve the twisted bowel loop of it is viable otherwise resection and anastomosis is advisable along with colostomy.[3]

Pregnancy can be conserved with explained risk of fetal growth restriction and preterm labour along with surgical complications.[1]

CASE REPORT

A 21 years old primigravida with 28 weeks gestation came to emergency with complaints of abdominal distension and multiple episodes of vomiting since 1 day with no history of fever, loose stools, outside food intake.

There was no history of altered fetal movements, bleeding or leaking per vaginum.

Patient had mild abdominal pain which was generalized, non-specific, non-radiating and of colicky type. On examination her pulse was 110 beats per minute with blood pressure of 110/70 mmHg. Abdomen was grossly distended on examination with tympanic note on

percussion. Uterus size was 28-30 weeks, relaxed, fetal heart sounds were heard, it was 130/min regular.

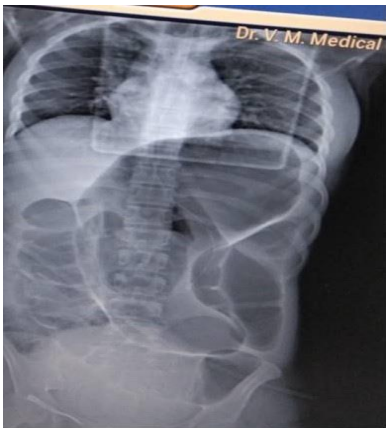

Figure 1: X-ray erect abdomen of the patient.

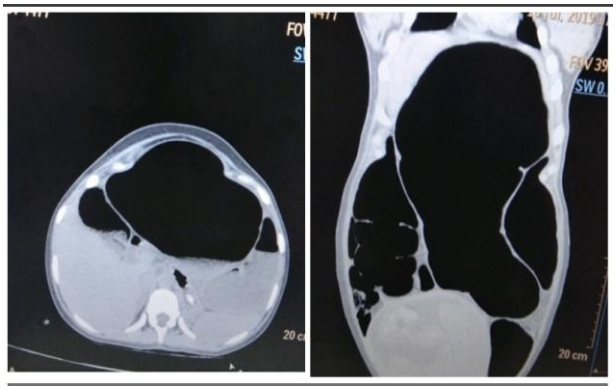

Figure 2: CT scan of abdomen.

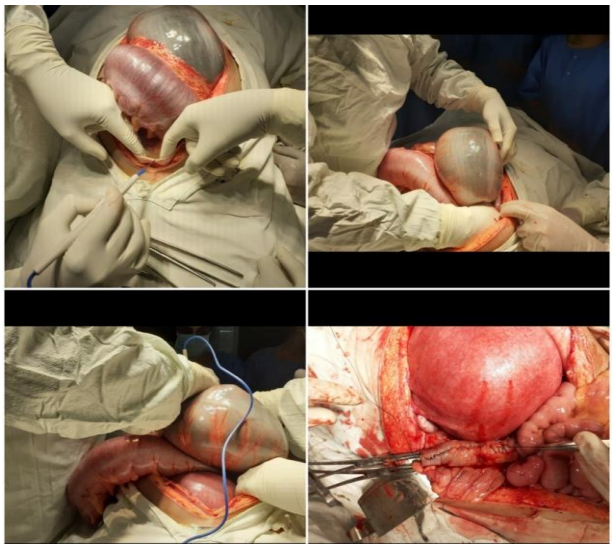

Figure 3: Intra-operative images.

Per rectal examination showed empty rectum. Primary diagnosis of acute abdomen was made and surgeons were informed. Her complete blood count and serum electrolytes were within normal limits.

X-ray erect abdomen and CECT were performed after taking consent for fetal prognosis. On X-ray erect abdomen coffee bean sign was seen with distended large bowel. Contrast computerized tomography showed twisted mess-entry of sigmoid colon-whirl sign.

Exploratory laparotomy was done. Intra-operative findings were as follows- there was evidence of a large dilated sigmoid colon rotated along the mesentery. Signs of vascular compromise were noted in the affected segment. Decision was taken to do resection of sigmoid colon followed by end to end anastomosis. Transverse colostomy was done in right hypochondrium. Thorough bowel wash was given.

There was no need for active obstetric intervention. The fetus appeared unaffected and the uterus was assessed to be normal for gestational age. Pregnancy was conserved with explained risk of fetal growth restriction, preterm labour and fetal anomalies due to radiation exposure. The patient was shifted to the surgical ICU for observation.

Patient was observed in the postoperative period and followed up strictly for antepartum fetal monitoring. Patient had spontaneous preterm vaginal delivery at 34 weeks of gestation. She delivered a male child weighing 1.6 kg, which required observation under neonatal intensive care unit.

DISCUSSION

A pregnant woman presenting with clinical triad of abdominal pain, abdominal distension with vomiting or absolute constipation, diagnosis of acute intestinal obstruction is suspected. Many times diagnosis can be delayed as nausea, mild abdominal discomfort, leucocytosis is very common in pregnancy and it can mask underlying intestinal pathology.[1]

Maternal and fetal outcome in this condition is related to time of presentation, degree of intestinal ischemia. Many times diagnosis is delayed due to hesitation in doing radiological investigations as there is risk of excess radiation exposure to the fetus.[4]

Delay in seeking medical help and delay in diagnosis causes raised maternal morbidity and even maternal death. Fetal exposure to excess radiation is associated with increased risk of childhood malignancies, intrauterine fetal growth restriction, pre-term labour.[3]

Risk of teratogenecity is much less in later half of pregnancy as organogenesis has already occurred till then.[3]

Early surgical intervention is necessary. Intra-operatively viability of bowel segment must be assessed carefully.[2]

Decision of bowel resection is based on intra-operative status, degree of bowel necrosis/ischemia.[1]

CONCLUSION

In our case, we managed sigmoid volvulus by surgical approach and pregnancy was conserved. Post-operatively patient was observed in surgery ward and discharged after 2 weeks. Patient followed up weekly for antenatal care and antepartum fetal monitoring was performed vigilantly. Patient landed up in preterm labour and delivered vaginally at 34 weeks of gestation.

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