

A RARE CASE OF BOWEL GANGRENE WITH PREGNANCY WITH IUD

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PRESENTATION OF CASE

A 26 year primigravida was referred with the diagnosis of 28 week pregnancy with intestinal obstruction. She complained of distension, pain in abdomen, not passing stool and flatus since 2 days, vomiting since 1 day. No history of previous surgery. On examination, her condition was poor, pulse 120/min., respiration 44/min. and blood pressure 100/60 mmHg. Abdominal inspection revealed gross distension. On palpation, abdomen was tense, guarding and tenderness was present, no fluid thrill or shifting dullness found, bowel sounds absent. Height of uterus was not clearly marked. Vaginal examination showed foetal head deep in pelvis and cervical os closed and posteriorly placed. Per rectal examination revealed an empty rectum. Investigation- HB 8.7 g%, blood group- O negative, WBC $20.95 \times 10^3/\text{UL}$, urine examination positive for blood cells, pus cells 40-50/hpf and RBC 30-40/hpf. USG whole abdomen showed subacute intestinal obstruction with mild ascites. USG obstetrics showed 28 weeks pregnancy with intrauterine dead foetus. X-ray abdomen standing showed multiple free fluid levels suggestive of intestinal obstruction. Fluid resuscitation and intravenous antibiotics were started, nasogastric tube suctioning had large amount of bilious fluid (approximately 1000 mL). Surgical referral suggested subacute intestinal obstruction.

Patient was taken for exploratory laparotomy. Operative findings- There was 500 mL of foul-smelling peritoneal fluid, which was sent for culture sensitivity and gram staining. Blackish discolouration and non-viability of bowel (gangrenous) extending from jejunum to transverse colon due to mesenteric ischaemia caused by encircling of mesentery at its base by transverse colon, which was acting as a band was seen. Resection of such a long length of bowel was not possible and surgeon took the decision of non-resection of gangrenous bowel. Whole of the gangrenous bowel inserted in the abdomen as it was. Caesarean section was done, baby male 1.3 kg stillborn delivered, uterus and abdomen closed in layers. Postoperatively, analgesia was

given and antibiotics continued, but patient could not survive and died after 11 hrs. of laparotomy.



Figure 1. X-Ray Abdomen Standing Shows Multiple Air Fluid Levels Suggestive of Intestinal Obstruction



Figure 2. Showing Distended Caecum and Bowel

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Figure 3. Showing Gangrenous Bowel

DIFFERENTIAL DIAGNOSIS

Volvulus - It is more as the gestational age of the pregnancy advances. The malrotation of the bowel makes it more prone for volvulus. **Adhesive Bands**- Congenital adhesive bands are the most common cause of obstruction in pregnancy. Initially, the uterus is a pelvic organ, but as pregnancy becomes an abdominal organ, the partial obstruction may become complete.¹ **Intussusception** - it is a very rare cause of intestinal obstruction accounting for 5% of cases.¹ It is telescoping of proximal bowel wall into lumen of distal segment of bowel leading to obstruction of blood flow ischaemia. Ultrasound frequently confirms the diagnosis of necrosis. Superior mesenteric vein thrombosis is the most important cause of bowel ischaemia in pregnancy.² It decreases blood supply to intestinal tissue and gangrene formation.

CLINICAL DIAGNOSIS

Intestinal obstruction with 28 weeks pregnancy with intrauterine death.

PATHOLOGICAL DISCUSSION

Mesenteric venous thrombosis occurs when a blood clot forms in one or more of the major veins that drain blood from intestines. A clot in any of these veins blocks blood flow to the intestines, which can lead to damage and tissue death. Mesenteric venous thrombosis can decrease the supply of blood to the tissues and cells of digestive system. This is called ischaemia. It causes intestinal damage or the death of intestinal tissue, which is called infarction. It can be life-threatening and it requires emergency medical attention. If death of part of the intestine occurs, the dead portion of the intestine must be surgically removed.

DISCUSSION OF MANAGEMENT

The signs of intestinal obstruction is difficult. Signs of acute abdomen may not be as prominent in pregnant abdomen when compared to nonpregnant one³ due to stretched abdominal wall being less sensitive to parietal irritation. Our

patient presented with abdominal pain, distension, vomiting with no previous surgical history to suggest adhesion as cause of obstruction. Suspicion of obstruction requires early intervention to decrease the morbidity and mortality of mother and baby. Uterine manipulation should be kept as little as possible when doing surgery. In our case, there was also a dilemma that whether patient should be kept for conservative management and first terminate pregnancy vaginally. For induction of labour, Tab. Misoprostol 50 mcg was inserted vaginally. Patient was observed for vitals and progress of labour. But, after 4 hrs., the patient was restless and uncomfortable. Her pulse was 160/min., blood pressure 80/60 mm of Hg. Per vaginal examination revealed foetal head lower down vaginally and cervical os closed and pushed still higher up posteriorly suggestive of anterior sacculation of uterus. Joint management between surgeons and obstetricians is necessary. The initial treatment consists of nasogastric aspiration with aggressive IV fluids to correct electrolyte disturbances. The basis of treatment is timely surgery and minimising delay in decision. The management of intestinal obstruction in pregnancy is similar to nonpregnant state. In the absence of signs of peritonitis, a conservative approach should be tried initially. Surgical intervention is indicated when conservative therapy fails and when there are signs of impending bowel strangulation or symptoms of foetal distress. The safety of anaesthesia in pregnancy for obstetric as well as non-obstetric surgical conditions have been well established.⁴ Diagnosis of case is often delayed. The average length of time from onset of obstructive symptoms until presentation is reported to be 48 hours.⁵ Delay in diagnosis and treatment beyond 48 hours results in intestinal necrosis and increased in foetal and maternal morbidity and mortality. This is mainly because pregnancy itself clouds the clinical picture, since abdominal pain, nausea and leucocytosis can occur in otherwise normal pregnancy.⁵ In cases of complicated intestinal obstruction, when foetus is alive, the integrity of uterus should be preserved. When foetus is dead, some authors propose the implementation of caesarean section.⁶ However, it is prudent to initiate the procedure for removing dead foetus and ensure that there is no contamination of the peritoneal cavity to avoid severe puerperal infection, which presents high rate of mortality.⁷

CONCLUSION

Early diagnosis of intestinal obstruction in pregnancy is still a great challenge, and at present, the most important factor to reduce the high rate of maternal and foetal mortality and morbidity. In an obstetric patient without any surgical history who presents with abdominal pain, one must always consider rarer surgical causes rather than merely obstetric or gynaecological causes of pain. Our patient showed how the delay in diagnosis complicated the condition of the patient. A careful review of history, a physical examination performed by keeping the gravid uterus in mind and well-judged use of radiological studies. Mainly, MRI are needed for clear plan of treatment and early intervention, also it reduces morbidity and mortality of this rare complication.

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