A Rare Case of Caecal Volvulus presenting during pregnancy

Bangal V*, Kwatra A**, Shinde K***, Shirsath A****

Abstract

Volvulus of the gut during pregnancy is a rare but serious surgical problem. Patient usually present with symptoms of acute abdomen, and are in moribund state. Exact diagnosis may be difficult till exploratory laparotomy is performed. Undue delay in diagnosis and surgical intervention can increase the maternal and perinatal morbidity and mortality. We present a case of pregnancy with caecal volvulus due to fibrotic band, presented in second trimester in extremely moribund condition. Timely surgical intervention and resection of gangrenous bowel with end to end anastomosis saved the life of the woman. Patient delivered a still born baby before the surgical intervention was carried out.

Keywords: *Volvulus, gangrene*

Introduction

Acute intestinal obstruction in pregnancy is a rare but dangerous complication with a high mortality. Prevalence of intestinal obstruction in pregnancy is 3/100,000. Caecal volvulus complicating pregnancy is an extremely rare complication with lesser than seventy-six cases reported in world literature.[1,2,3,4,5] Prevalence of caecal volvulous is 25 % ~ 30 % of all volvulus cases. We report a case of caecal volvulus complicating pregnancy. The presenting signs and symptoms seen in these patients are the same as with non-pregnant patients.[6] Fetal and maternal mortality rates are higher during pregnancy due to delay in diagnosis.[7] Caecal volvulus is a condition that poses a myriad of challenges in diagnosis and management of the patient. It demands on the clinician, a high index of suspicion, immediate treatment involving resuscitation and good judgment in handling of the bowel in face of added potential morbidity and mortality to the mother and fetus.

* Professor – Dept of Obst. & Gynae, RMC, Loni
** DNB – Registrar, Dept of Obst. & Gynae, RMC, Loni
*** PG Student(MS) - Dept of Obst. & Gynae, RMC, Loni
**** Asst. Professor - Dept of Obst. & Gynae, RMC, Loni

Address for correspondence:
Dr. Bangal V, Professor, Department of Obs & Gynae
Rural Medical College, Pravara Institute of Medical Sciences
At post:Loni, Taluka – Rahata, Dist – Ahmednagar-Pin:413736
vbb217@rediffmail.com

Clinical Summary

Mrs. XYZ, 23 years old was referred from private hospital as G2P1L1 with 26weeks of gestation with intrauterine death with severe distention of abdomen. She presented with history of 3-4 episodes of vomiting, absolute constipation for 3 days and pain in epigastric region since 1 day. There was no history of jaundice, malena or fever. On examination, patient was looking extremely sick, extremities were cold and clammy. Her general condition was poor, pulse rate was 130/min regular hypovolemic, blood pressure was 90/70mm Hg, respiratory rate was 36/min. Her abdomen was distended upto xiphisternum with dilated veins. There was presence of tenderness all over the abdomen, peristalsis was sluggish. Size of the uterus could not be assessed because of extreme tenderness. Provisional diagnosis of intestinal obstruction with peritonitis with septic shock was made. Medicine and surgery consultants opinion were taken to rule out other medical and surgical causes of acute abdomen with pregnancy. Ryle's tube was inserted Black coffee brown coloured aspirate was obtained. On investigations, her hemoglobin was 10gm%,renal funtion tests ,liver function tests, serum electrolytes were mildly deranged and platelets were 18000/cumm. Erect X-Ray abdomen revealed pneumoperitoneum with signs of intestinal

obstruction. Patient went in spontaneous labour and delivered still born baby within 6 hrs. She had retained placenta. She went into hypotension following delivery. Patient was resuscitated and exploratory laparotomy under general anesthesia was done jointly by gynaecologists and surgeons. Intraoperatively, three to four litres of ascitic fluid was drained from peritoneal cavity. There was a fibrous band at ileocaceal junction causing volvulus of caecum (Fig. 1).

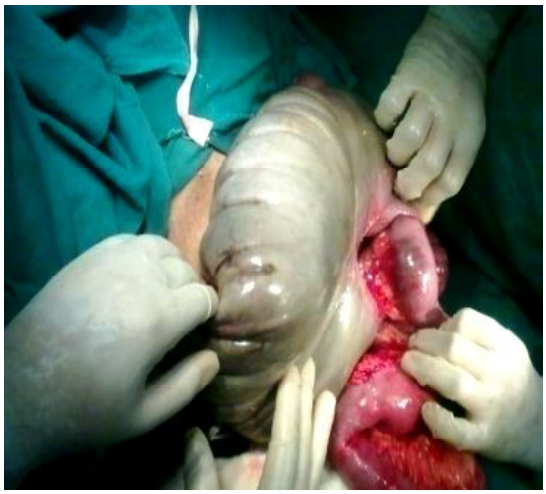

Fig. 1: Caecal Volvulus with fibrotic band

Frank gangrene of distal one third of jejunum, whole of caecum, appendix, half of proximal transverse colon and superior mesenteric pedicle was seen. Involved bowel segment was flaccid and discolored with no peristalsis, suggestive of frank necrotic changes. Resection of gangrenous bowel (Fig.2) was done with end to end anastomosis of jejunum and transverse colon. Manual removal of placenta was done. Drain was kept in Morrison's pouch and pelvic cavity.

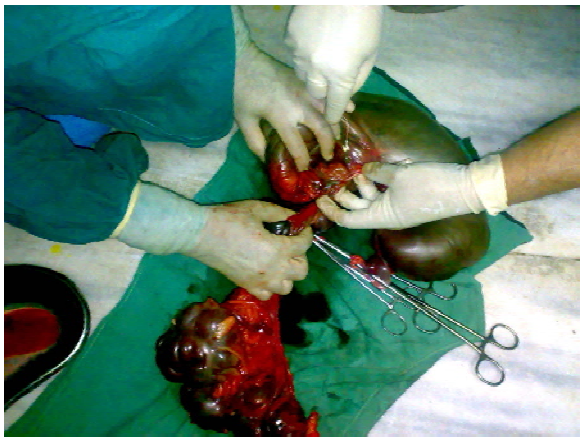

Fig. 2: Resected gangrenous bowel

Post operatively, patient was kept in ICU for ventillatory support. She received ionotropic drugs and higher antibiotics. She developed postoperative anemia with septicemia with disseminated intravascular coagulation with multi-organ dysfunction syndrome. Her postoperative hemoglobin was 4gm%, prothrombin time was 25 seconds, platelet count was 25,000/cumm. She was transfused with 5 units of whole blood, 4 units fresh frozen plasma, 2 units single donor platelets She was extubated on second postoperative day and ionotropic support was withdrawn as her condition showed improvement. Liquids were started orally on seventh postoperative day and abdominal drain was removed on eighth postoperative day. Patient was discharged on ninth postoperative day.

Discussion

We present this case to remind obstetricians of such rare cause of acute abdomen during pregnancy. The degree of twisting of gut due to volvulus can vary from ninety degrees to three hundred sixty degrees and can occur in an anticlockwise direction or clockwise direction. Complete rotation will result in a closed loop obstruction, leading to trapping of intestinal contents within the loop and compromise in vascular inflow and outflow.[8] If the obstruction persists, it results in massive loss of fluid, both into the lumen and subsequently, the peritoneum as well. In later stages, the massively distended bowel together with extravasated fluid can cause abdominal compartment syndrome or the bowel may undergo necrosis with leakage of contents into the abdominal cavity resulting in florid peritonitis. The distension can also lead to severe compromise in respiratory function. Delay from admission to definitive management continues to be a significant cause of mortality and morbidity.[9] Maternal mortality range from 6% - 20%. Fetal death following maternal intestinal obstruction can occur in 20%-26% of cases.[9]

Conclusion

Caecal volvulus occurs rarely during pregnancy. It usually presents as intestinal obstruction. Patient needs emergency laparotomy. Timely intervention can reduce maternal and perinatal morbidity and mortality.

References

1) Harer WB Sr. Volvulus complicating pregnancy and puerperium. Obstet Gynecol 1958; 12: 399-406.
2) Joshi MA, Balsarkar D, Avasare N, Pradhan C, Pereira G, Subramanyan P, Shirahatti RG, Changlani TT. Gangrenous sigmoid volvulus in a pregnant woman. Trop Gastroenterol. 1999; 20:141
3) Lazaro EJ, Das PB, Abraham PV. Volvulus of sigmoid colon complicating pregnancy. Obstet Gynecol 1969; 33: 553
4) Keating JP, Jackson DS. Sigmoid Volvulus in late pregnancy. J R Army Med Corps 1985; 131: 72-74.
5) Lord SA, Boswell WC, Hungerpiller JC. Sigmoid Volvulus in pregnancy. Am Surg 1996; 62: 380-2.
6) Ballantyne GH. Review of sigmoid volvulus: Clinical pattern and pathogenesis. Dis Colon Rectum 1982; 25: 823-30.
7) Dennison AR, Lee EG. Volvulus of the colon. Incidence and mortality. Ann Surg 1985; 202: 83-92 3.
8) Hughes L.E FRCS,FRACS ,Royal Brisbane Hospital, Australia The Medical Journal of Australia, The Place of immediate resection in the management of sigmoid volvulus 1968; 268-273
9) Redlich A, Rickes S, Costa SD, Wolff S: Small bowel obstruction in pregnancy *J Gastrointest Surg*. Jan 2008;12(1):202-4.