



CASE STUDY

ACUTE ABDOMEN IN PREGNANCY: JOURNEY UNFINISHED FOR A SURGEON

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ABSTRACT

Acute abdomen in pregnancy may be difficult to diagnose and treat. Any serious intra-abdominal condition attended by pain, tenderness and abdominal muscular rigidity for which emergency surgery must be considered. We hereby present case of ileal perforation with Meckel's Diverticulum and grade 3 adhesions in a 28 weeks pregnant patient. This case is being presented for its rarity and its diagnostic difficulty.

Key words:

Journey,
Surgeon,
Pregnancy.

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INTRODUCTION

Acute abdomen in pregnancy may be difficult to diagnose and treat. As defined by Stedman's Medical dictionary 27th edition acute abdomen is- Any serious intra-abdominal condition attended by pain, tenderness and abdominal muscular rigidity for which emergency surgery must be considered. (Sivanesaratnam, 2000) Any cause for acute abdomen can occur coincident with pregnancy. Some clinical conditions are more likely to occur in pregnancy. Thus, a wide range of possible differential diagnosis should be considered. Reacting on accurate diagnosis and administering appropriate management can be challenging in the presence of an on-going pregnancy. We hereby present case of ileal perforation with Meckel's Diverticulum and grade 3 adhesions in a 28 weeks pregnant patient. This case is being presented for its rarity and its diagnostic difficulty.

Case History

A 19 year old female with history of 28 weeks of amenorrhea presented to our emergency department with complaints of diffuse abdominal pain since 3 days, dull aching type, non-radiating aggravated on taking food.

History of vomiting for one day, 4-5 episodes, contains food particles; non projectile, non-bilious and non-blood stained and has not passed stools since 3 days. She has difficulty in breathing for one day. No history of fever, bleeding per vagina, burning micturition. There is no significant past and family history. On examination, patient is febrile with PR-90beats/min, Blood pressure-130/70mm of Hg, RR-14 cpm. Per abdomen- there was diffuse abdominal distension with linea nigra and striae gravidarum. Fundus height corresponds to 28 weeks of gestation. Diffuse tenderness present but more in right hypochondrium and epigastric regions, no guarding/rigidity, no hepatosplenomegaly, no free fluid, liver dullness not obliterated, hyper dynamic bowel sounds present and rectum loaded with soft stools.

Subjecting patient to investigations Complete blood count shows elevated neutrophilic count with normal renal and electrolyte profile. Obstetric ultrasound shows single live intrauterine foetus of gestation 28 weeks 5 days with oligohydromniosis, with extensive bowel gas and minimal free fluid. X-ray chest showed air under right sided hemidiaphragm. USG abdomen show free fluid in abdomen with ? acute pancreatitis/ ruptured ovarian cyst/hollow viscus perforation.

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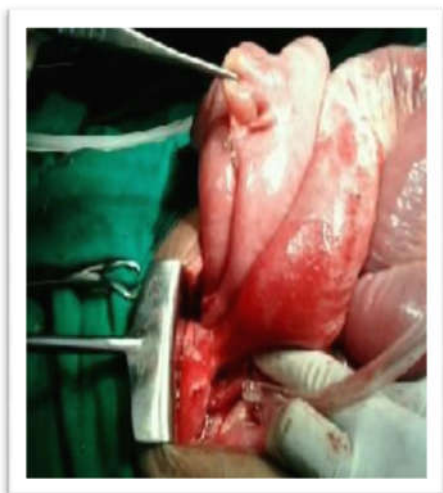


X-ray of chest (PA view) shows air under right side of hemidiaphragm

on orally, simultaneously drain removed. 6th post op day started soft oral diet. Baby is healthy and started on breast feeds 10th post op day. The Histo-Pathology of specimen showed small intestine (Ileum with Meckel's Diverticulum), gastric heterotopia noted in Meckel's diverticulum and perforation segment showed no specific physio-pathological findings.

DISCUSSION

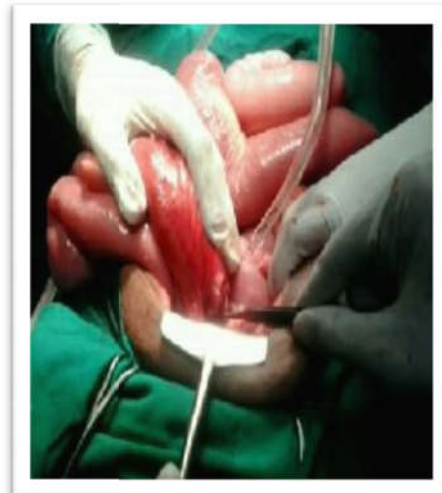
Management of acute abdomen in pregnant patient is a multidisciplinary approach involving obstetrician, surgical gastro enterologist, surgeons. In early pregnancy, an ectopic pregnancy must be excluded before diagnosing any other cause abdominal pain. In late pregnancy it's difficult to diagnose, as it's more complex in pregnant women because uterine enlargement and lax abdominal wall may side the classical signs. Abdominal organs can change the position as pregnancy progress. E.g. Appendix. (Klipatrick and Monga, 2007). The assessment must be considered for both maternal and foetal well-being, bearing in mind that intra-abdominal infection or inflammation can be associated with premature labour or foetal loss and the condition such as appendicitis carry higher risk in pregnancy. (Cappell, 2003)



Meckel's diverticulum



Ileal perforation



bowel loop adhesions

Diagnosis of "**Hollow Viscus Perforation**" was made. Patient was taken emergency explorative laparotomy under General Anaesthesia. Patient had spontaneous vaginal delivery on operating table before inducing anaesthesia, delivered a live low birth weight male baby with cephalic presentation. On laparotomy, nearly 100ml of pus with faecal presentation in peritoneal cavity has seen. 2×3cms perforation noted in ileum nearly 30cm's away from Ileo-Caecal junction. Meckel's diverticulum of 5cm's in length noted nearly 40cms away from IC junction, nearly 60cm from IC junction ileum is adherent to bladder and uterus in two loops and inter bowel adhesions were present. Dilated oedematous small bowel noted proximal to perforation. Resection of segment of ileum contained perforation and Meckel's diverticulum was done. Ileo-Ileal anastomosis done. Peritoneal lavagedone and drain placed in pelvis. Patient postoperative recovery was good, treated with IV antibiotics, blood transfusion. 4th postop day patient started

Base line investigations should include Complete blood count, renal functional parameters, serum electrolytes, Liver function parameters and pancreatic enzymes. Although abdominal X-rays generally contraindicated in pregnancy they must be performed on the suspicion of gastrointestinal perforation to assess the presence of pneumoperitoneum. The maternal and foetal benefits of prompt diagnosis and treatment for outweigh and foetal risk of teratogenicity or childhood cancer. Several studies suggest that when gastrointestinal perforation is suspected EGD is contraindicated. This is because of endoscopic intubation can convert a contained perforation into a free intraperitoneal perforation (Howich, 1958). Henceforth there will be intraperitoneal spillage of contaminated intestinal contents. Surgery becomes mandatory when perforation is suspected. Early surgery improves the maternal and foetal prognosis. Fluid resuscitation and correction of electrolyte imbalance should be instituted before surgery. Surgery for

ileal perforation if it's less than 1cm involves primary closure; if it's more than 1cm it needs resection and anastomosis (Cappell and Sidhom, 1993). For patients who are preterm at labour and hence intramuscular steroid administration for foetal lung maturation to be considered. Postoperatively patient should treat with course of antibiotics, proton pump inhibitors, analgesics, adequate hydration and with good nutritional support.

Conclusion

Abdominal pain in pregnancy is a challenging case to diagnose and manage for a surgeon. Management of acute abdomen in pregnant patient is a multidisciplinary approach involving obstetrician, surgical gastro enterologist, surgeons, anaesthetist maintaining adequate maternal perfusion and fetal viability. Urgent hospital referral is required, unless a benign cause is established with a certainty in the absence of maternal or foetal distress.

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