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GASTROINTESTINAL COMPLICATIONS IN GYNECOLOGICAL PROCEDURES

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ABSTRACT Bowel and bladder related complications are not frequently encountered following gynecological surgeries. But due to close anatomical correlation with female genital tract, there are high chances of injuries. These injuries are however rare during cesarean delivery. It is estimated the bowel is damaged in about 1 in 1000 cesarean deliveries.[1] Similarly bowel perforation can occur during gynecological surgeries when risks like obesity, previous surgery and adhesions are encountered. We present 3 cases of gastrointestinal tract complication after gynecological surgeries.

KEYWORDS : Complications, Gastrointestinal injuries, Gynecological procedures, Laparoscopy

INTRODUCTION:

It is generally important for gynecologists to have a working familiarity with management of common perioperative gastrointestinal complications.[2] High risk factors during gynecological surgeries should be remembered such as obesity, previous surgery, gynecological pathologies such as endometriosis, previous radiation therapy and pelvic inflammatory disease. Gynecological surgeries often require a meticulous and detailed dissection near bladder, ureter, rectum, loops of intestines and important vascular channels of pelvis. Common complications which arise from these surgeries are related to injuries of bladder, ureter and bowel during extensive dissections and resections for treatment of cancer. Since past few years, operative laparoscopy has proved its surgical discipline but bowel injuries are common if not in hands of expertise. The use of cautery and laser therapy may cause burn injuries to gastrointestinal tract. A general surgeon may be required to tackle these problems. Preventive measures should be used at the time of any surgical procedure to reduce the incidence of these complications. Although it is rare to cause injury to bowel during gynecological procedure where a quoted incidence varies between 0.3-0.8%.[3]

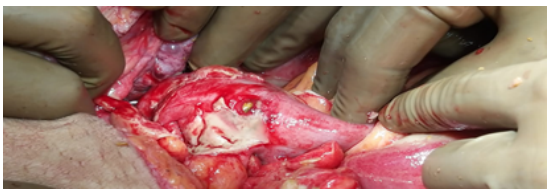
CASES:

CASE 1

A 38years old female weighing 110kg, $G_3P_1L_1A_1$ (Previous LSCS), 39weeks gestation with Pregnancy induced hypertension with USG suggestive of intramural fibroid underwent emergency Caesarean section. Intra-operative and postoperative period was uneventful.

She then presented on post-op day 10 with temperature 101°F, acute pain in abdomen, distension and difficulty is passing stools. Laboratory tests showed leukocytosis and raised C-reactive protein.

On abdominal examination, tenderness and rigidity was present. Abdominal X-ray was suggestive of multiple air-fluid levels. Exploratory Laparotomy was done. Fecal peritonitis was found with sigmoid colon perforation. Thorough peritoneal lavage along with primary closure of perforation and transverse loop colostomy was done.



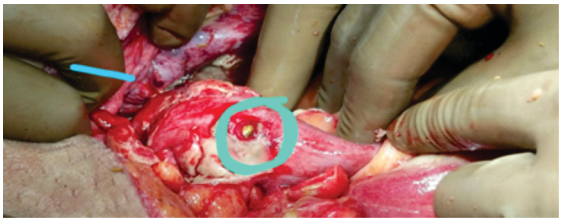


Figure 1 Showing sigmoid colon perforation

CASE 2

A 29-year-old female, P_3L_3 (previous all 3 Caesarean section) was referred from private clinic on Postoperative day 10 of Emergency Lower segment caesarean section with abdominal distension, constipation and pain in abdomen and fever.

On examination, Abdominal tenderness was present with guarding and rigidity along with tympanic note on percussion. Abdominal X-ray showed multiple air fluid levels. Contrast enhanced CT abdomen also showed pneumoperitoneum. Patient underwent exploratory laparotomy. Extensive intra-abdominal adhesions with around 1.5 liters of purulent and fecal material was found with Caecal perforation. Normal saline wash was given and primary closure of perforation along with ileostomy was done.

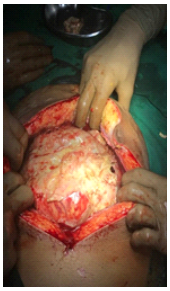


Figure 2 Dense Intra-abdominal adhesion with peritonitis

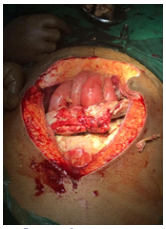


Figure 3 Showing caecal perforation

CASE 3

A 37-year-old female, $P_2L_2A_2$ was referred on postoperative day 20 of suction & evacuation with complaint of spotting through vagina and Ultrasound suggestive of rent in the posterior wall of uterus in continuation with Pouch of Douglas and minimal free fluid in Pouch of Douglas.

Patient was hemodynamically stable and blood investigations were WNL. Patient had no other complaints. Bowel and bladder habits were normal. She was taken for diagnostic laparoscopy on which bowel loop was seen to be impinged inside the uterine perforation. Bowel was carefully freed and examined for any perforation, but was intact. Uterine rent sutured laparoscopically and patient was kept nil per oral and observed for signs of obstruction until flatus was passed.

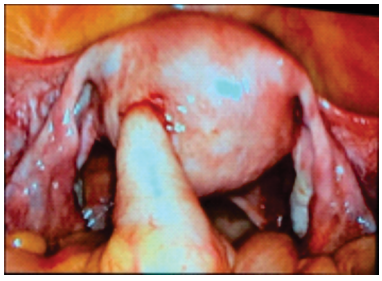


Figure 4 Uterine perforation with loop of intestine impinging through perforation

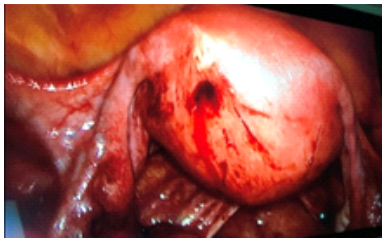


Figure 5 Uterine Perforation after removing bowel loop

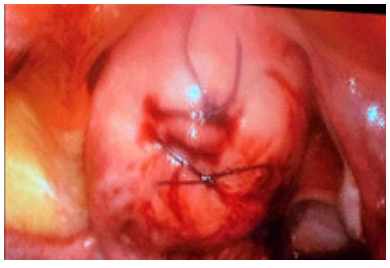


Figure 6 Uterine perforation sutured

DISCUSSION:

In the first two cases, patient developed abdominal pain and distention following caesarean section. Serosal tears represent weak points in small intestines. If obstruction develops postoperatively, these week spots may perforate leading to peritonitis. One of the patients being obese, there are increased chances of morbidity and mortality because of the known surgical difficulties and anesthetic complications.[4] It is well known that instrumental delivery performed following a prolonged second stage of labour can cause injury of anal canal and anal sphincter. Cesarean deliveries performed after previous surgeries, there are increased risk of injury to small bowel.[5] It is often found that gastrointestinal injuries are usually not recognized during surgery if they are small and is detected after 5-7 days when patient presents with symptoms. Both patients came with complaints of pain in abdomen and distension. Abdominal examination revealed tenderness with guarding and rigidity. Per rectal examination showed empty rectum with ballooning. X-ray abdomen standing were suggestive of multiple air fluid levels. CT abdomen was suggestive pneumoperitoneum. Immediate laparotomy was taken up for both patients. In first case, a sigmoid perforation measuring approximately 6 mm was present (Figure 1). The descending colon and the rectosigmoid colon are immediately involved with pelvic structures and therefore are at significant risk of injury. Resection with end to end anastomosis with preliminary colostomy is done for larger lacerations of large bowel perforation. For this patient, primary closure of the defect involving the lumen was done with a transverse colostomy. For the second patient, caecal perforation of 5mm with fecal peritonitis was found (Figure 3). Extensive dense adhesion was present (Figure 2). Primary closure was done with ileostomy.

Small bowel injuries are more common intestinal injuries in gynecological surgery. Small defects of less than 5mm of serosa or muscularis are usually repaired using single layer of continuous or interrupted 3-0 absorbable suture. Although this is adequate however recent advances suggest that it is safer to close the defects involving lumen in two layers using 3-0 absorbable suture.

In the third case, patient presented on postoperative day 20 with only complaint of blood-stained discharge through vagina with no additional bowel or bladder related complaint. It is common to find uterine perforation with subsequent bowel involvement in cases of criminal abortion. However, bowel can be injured during medical termination of pregnancy with dilatation and evacuation or suction and evacuation. At times, the uterine perforation goes unnoticed and a loop of intestine is pulled the perforation. A similar presentation of bowel loop entering through the uterine perforation was seen in this case (Figure 4). General surgery help was called for the case and it was managed laparoscopically. The bowel was carefully removed and examined for perforation but appeared healthy. Uterine perforation was closed (Figure 6). Patient was strictly monitored in postoperative period. Recovery was uneventful.

CONCLUSION

Gastrointestinal injuries can be avoided by proper obstetrical management. The most important point in management of bowel injuries is the diagnosis during surgery and immediate repair, however, most of the time the diagnosis of bowel injury during cesarean section or any gynecological procedure is missed and patient presents with post-operative complications few days later. Suspicion of bowel injury if the patient is presenting with bowel symptoms post- operatively and help of general surgeon or a gastrointestinal surgeon will help in reduction of postoperative morbidity and mortality.

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