



Fecal impaction with stercoral perforation of the cecum in pregnancy - (case report of a rare entity)

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Abstract : Stercoral perforation of colon is a rare entity occurring mainly in the left colon in elderly population with underlying chronic constipation. About 100 cases of stercoral perforation are reported and most of them are in the sigmoid and recto sigmoid. Mortality is more than 30 and most patients are managed by resection with diversion of colon. Stercoral perforation of colon in pregnancy is very rare and there are only 4 cases reported in English literature. Fetal loss is common. We report a case of contained cecal perforation in second trimester of pregnancy in a woman with fecal impaction and over distended cecum. She presented with constipation and was found to develop peritonism during treatment of fecal impaction. She was managed with resection and primary anastomosis with favorable outcome of pregnancy without fetal loss. Stercoral perforation of cecum is not conservatively reported in pregnancy and this is possibly the first report of favorable obstetric outcome managed by primary resection anastomosis as the perforation was contained and detected early.

Keyword : Stercoral perforation, pregnancy, cecum

Introduction:

Stercoral perforation during pregnancy is extremely rare with underlying constipation being the main etiological factor. There are two causes of spontaneous perforation of the colon: stercoral and idiopathic. Most of the perforations occur in the sigmoid colon, followed by descending colon. However, correct preoperative diagnosis of stercoral perforation is made in only 11% of the cases³. Morbidity is very high and in pregnancy fetal loss can occur. We report a case of contained cecal perforation in second trimester of pregnancy in a woman with fecal impaction managed by primary anastomosis with favorable obstetric outcome.

Case report:

A primi gravida with 21 weeks of pregnancy presented with acute constipation, abdominal pain and vomiting for six days. She did not have history of chronic constipation and does not have any medical comorbidities or significant past history. She was treated elsewhere for 3 days conservatively and was referred. On admission, she was afebrile, dehydrated and had

pallor. Pulse was 104 /min, BP was normal. Her abdomen was distended with tenderness in the epigastrium and right side of abdomen. There were no signs of peritonism. Obstetric examination was normal. Investigations revealed hemoglobin of 10.4 gm, wbc count of 13000/ml and 81% neutrophils. USG revealed distended fecal filled cecum and ascending colon of 7 cm, no free fluid and mildly distended small bowel loops. X ray abdomen revealed fecal loaded distended cecum and ascending colon. There was no evidence of intramural gas or free gas in the peritoneal cavity. CT was not done as the patient was in second trimester.



Xray abdomen supine showing grossly dilated fecal loaded cecum and ascending colon

She was managed conservatively with intravenous fluids and antibiotics with rectal enema as there was no peritonism or evidence of perforation. She continued to be constipated and had persisting pain, developed peritonism 20 hours after admission. She was taken for laparotomy. Contained cecal perforation with fecal impaction of the cecum and ascending colon were noted. There was no peritoneal contamination. Small bowel was dilated and distal colon was relatively empty. As the patient was young, hemodynamically stable and did not have any evidence of peritonitis, resection of the right colon and primary ileo colic anastomosis was performed. Histopathology report of the limited right colectomy specimen showed perforation with no other specific pathology. Post op period was uneventful except for wound infection.



Gross specimen showing site of cecal perforation



cut section showing fecal loaded cecum and ascending colon

Discussion

Stercoral perforation is defined as, "perforation of the bowel due to pressure necrosis from fecal masses."¹ Constipation is present in 81% of cases. Sigmoid or recto sigmoid colon is the site of perforation in 71% cases. 4 Up to 21% of cases may involve multiple perforations.³ Correct preoperative diagnosis of stercoral perforation is made in only 11% cases.³ 100% of patients show evidence of fecal impaction on abdominal films.³ There is a reported 47% mortality rate among all cases and a 35% mortality among surgically treated cases of stercoral perforation.³ Out of 4 cases of stercoral perforation in pregnancy reported in literature, fetal loss occurred in 2 cases As CT is not done routinely in pregnancy, preoperative diagnosis is difficult. In all four cases in pregnancy, sigmoid was the site of perforation.

Maure et al diagnostic criteria 2 :

According to the criteria outlined, a true stercoral perforation can be defined as:

- 1.Perforations must be round or ovoid, >1cm in diameter and anti-mesenteric in location
- 2.Fecal masses must be present within the colon or abdominal cavity.
3. Pressure necrosis or ulcer and chronic inflammatory reaction around the perforation site must be present microscopically.

All of the above must be featured in the absence of any other active colonic pathology.

Management :

- Resection of the diseased segment with proximal colostomy and formation of Hartmann's pouch or mucous fistula is the procedure with lowest mortality rate.⁽³⁾
- Elective LSCS may be combined in third trimester pregnancy.
- Risk of fetal loss in second trimester due to premature delivery.
- Prompt diagnosis and treatment is the best way to prevent poor outcome after stercoral perforation. CT abdomen may be needed in undiagnosed pain abdomen in pregnancy to rule out perforation.⁽⁵⁾

This patient did not have chronic constipation and did not have any etiology for constipation. She was hemodynamically stable at admission and initial evaluation did not show evidence of perforation. She underwent laparotomy as the constipation and pain persisted and there were signs of peritonism. As she had a contained cecal perforation sealed by the momentum without peritonitis and was hemodynamically stable, she underwent primary anastomosis. This is the first case of stercoral perforation in pregnancy to be reported where the perforation was in the right colon and primary anastomosis was done with favorable obstetric outcome.

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colon and primary anastomosis was done with favorable obstetric outcome.

CONCLUSION

Stercoral perforation of colon must be considered in any patient with constipation and abdominal pain. Even in pregnancy, computerized tomogram of the abdomen should be considered to rule out perforation if cause of pain is not clear. Accurate diagnosis and early intervention facilitated by close clinical monitoring, contained perforation with no peritonitis, favorable general condition and otherwise healthy distal colon will facilitate good outcome and primary anastomosis.

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