

A Rare Case Report of Perforated Duodenal Ulcer in Puerperium Period

Dr. Ahemadi Firdous Nikhat¹, Dr. Rudraiah H.G.M²

¹Post Graduate Student, Department of general surgery, JJM Medical College, Davangere

²Professor, Department of General Surgery, JJM Medical College, Davangere

Abstract: Peptic ulcer disease (PUD) is uncommon in pregnancy and puerperium period. Pregnancy creates several difficulties in the diagnosis and management of peptic ulcers. Firstly the symptoms of PUD (nausea, vomiting and epigastric discomfort) are also quite common in pregnancy, and secondly diagnostic tests for PUD in pregnancy (X-rays and upper GI endoscopy) are rarely done. Nevertheless prompt diagnosis and timely management of PUD in pregnancy are essential as complications can result in quite significant morbidity or even mortality for the patient. We hereby report a case of 27 year old female presented in a puerperium period with perforated duodenal ulcer.

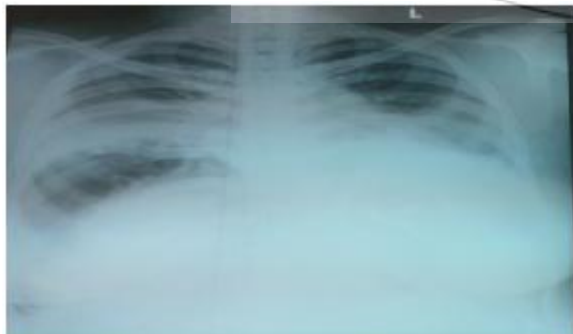
Keywords: Peptic ulcer disease (PUD), Puerperium period, Pregnancy, Perforated Duodenal ulcer

1. Introduction

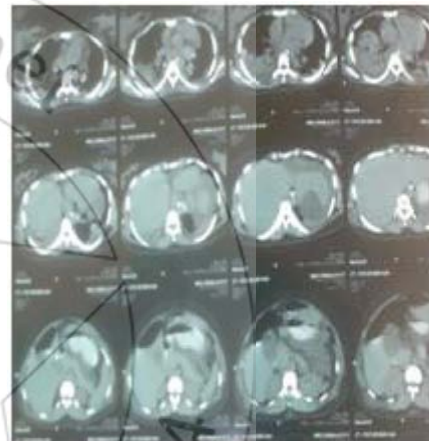
Peptic ulcer disease can present as an emergency with perforation of an ulcer or haemorrhage. Peptic ulcer disease (PUD) during pregnancy is very uncommon ranging from 1-6 in every 23,000 pregnancies. But many studies support a decrease in overall incidence of PUD during pregnancy¹

2. Case Report

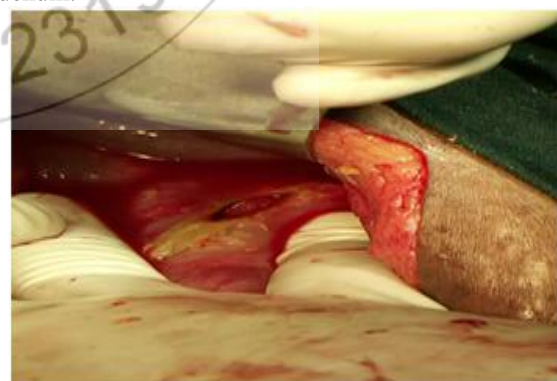
A 21 year old female patient presented to Bapuji hospital attached to JJM medical college Davangere on post-caesarean section day 7 with abdominal distension and pain abdomen of one day duration. On examination patient was having tachycardia, diffuse tenderness with abdominal distension. The patient underwent caesarean section 6 days back, the indication being oligohydramnios and no other stress related factors were identified and the post-section period was uneventful. After the admission patient was evaluated and investigated thoroughly. Blood investigations showed features of sepsis, and on X-ray erect abdomen -air under diaphragm was found.



CECT- pneumoperitoneum with infected fluid in peritoneal cavity.



After 2 days of conservative management, condition of patient deteriorated and hence was taken up for emergency laparotomy on post LSCS day 9. On laparotomy a large perforation was found on anterior aspect of first part of duodenum.



A Graham Roscoe patch repair was done. The patient was started on a proton pump inhibitor. Postoperative period was uneventful and the patient was discharged on the 10th day of admission.

3. Discussion

Multiple epidemiologic studies support a decreased incidence of PUD (Peptic ulcer disease) in pregnancy and puerperium¹. It has been suggested that female gestational hormones (particularly progesterone) decrease the rate of ulcer formation by increasing gastric mucus synthesis. An increase in plasma histamine in pregnancy (caused by placental histaminase synthesis) increases metabolism of maternal histamine, thereby reducing gastric acid secretion during pregnancy². In 1945, Horwich explained the rarity of peptic ulcer in pregnancy by correlating hypochlorhydria with increased secretion of anterior pituitary-like hormones in the urine³. Avoidance of ulcerogenic factors such as cigarette smoking, alcohol, and NSAIDs (Nonsteroidal anti-inflammatory drugs) all probably contribute to the reduced incidence of PUD in pregnancy. In spite of all these reasons PUD occurs in pregnancy and puerperium. In 1966, Robert M. Baird in his review quoted 17 cases of duodenal perforations during pregnancy. All the patients who were conservatively managed died and there were no maternal deaths in those who had a simple closure of the perforation⁴.

Paul *et al* in their literature review described 14 cases of perforated duodenal ulcer in which all women lost their lives⁵.

Classical clinical signs of guarding, rigidity and rebound tenderness might be absent in pregnancy and puerperium⁶ as in our case due to loss of tone of abdominal wall muscles and hence it can be missed.

Surgery becomes mandatory when perforation is suspected. Early surgery improves maternal and fetal prognosis. Surgery for duodenal perforation usually involves a Graham patch closure. Postoperative antibiotics should be continued for at least a week. Medical treatment for PUD must be started. Our patient was started on pantoprazole and was advised to continue for 3 months.

4. Conclusion

Complications of peptic ulcer disease do occur in pregnancy and puerperium. Often times when they occur, diagnosis is made very late because classical clinical signs of guarding, rigidity and rebound tenderness might be absent in pregnancy and puerperium period which results in severe morbidity and mortality. Multidisciplinary approach should be present in such cases. Hence a rare occurrence of perforated duodenal ulcer during pregnancy and puerperium period should be considered as one of the differential diagnosis of acute abdominal pain.

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