

POSTERIOR PERFORATION OF GASTRIC ULCER: A RARE SURGICAL EMERGENCY

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ABSTRACT

BACKGROUND: Gastric ulcer perforation is a rare surgical emergency. Posterior gastric ulcer is even rarer and usually has a delayed presentation with attendant greater morbidity and mortality.

AIM: To report a case of posterior perforation of gastric ulcer and review the literature.

CASE REPORT: A 65yr old driver was seen in the hospital with a 4- day history of epigastric pain which became generalized. Examination revealed a patient in shock with a board-like rigidity of the abdomen. Chest x-ray confirmed pneumoperitoneum. He had an exploratory laparotomy. Findings at surgery include moderate peritoneal fluid collection and 1.5cm diameter perforation on the posterior gastric wall which was closed primarily with an omental patch. Biopsy of the ulcer edge was negative for malignancy. He was discharged 10 days after surgery.

CONCLUSION: To the best of our knowledge, perforation of a posterior gastric ulcer is an unusual encounter in surgery. A high index of suspicion is needed to prevent high mortality.

KEYWORDS: Posterior, Gastric, Rare, Ulcer.

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INTRODUCTION

Perforation occurs in 2-10% of patient with peptic ulcer disease and accounts for more than 70% of deaths associated with peptic ulcer disease¹. Gastric ulcer has a higher associated mortality and a greater morbidity resulting from haemorrhage, perforation and obstruction². Gastric perforation is less common than duodenal perforation. Posterior gastric perforation is even rarer and usually have a delayed presentation with attendant greater morbidity and mortality³.

We report a case of posterior perforation of gastric ulcer and a review of the literature

CASE REPORT

A 65yr old driver was admitted with a four- day history of epigastric pain, which later became generalised three days later. He denied the history of vomiting. He is not a known peptic ulcer patient, but admitted taking some local herbal concoction before presentation. He has also

been on over the counter non- steroidal anti-inflammatory drugs for his chronic leg pain for about two years.

Clinical examination revealed an acutely ill patient, severely dehydrated and in shock with a pulse rate of 120beats perminute and blood pressure of 100/60mmHg. He was also febrile and tachypnoeic. The abdomen was distended, generalised tenderness, rebound tenderness and board-like rigidity. Chest X-ray revealed Pneumoperitoneum. A presumptive diagnosis of perforated peptic ulcer was made.

He was resuscitated with crystalloids. An emergency laparotomy was done. Findings at surgery revealed moderate peritoneal fluid collection. There was no perforation on the anterior wall of the duodenum and stomach. The gastro-colic omentum was opened, which revealed copious lesser sac abscess and 1.5cm posterior gastric ulcer perforation (Figure 1). A biopsy was taken from the edge. The perforation was closed with interrupted 2/0 polyglactin sutures and an omental patch was done. The peritoneal cavity was

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copiously irrigated with normal saline. Abdominal drain was inserted and wound closed in layers.

He was managed in intensive care unit and was transferred to the ward five days later. He was discharged home after 10 days in the hospital. Ulcer edge biopsy report revealed benign gastric ulcer.



Figure 1

DISCUSSION

Posterior gastric perforation is a very rare clinical entity³. Hamilton Bailey reported only one case of posterior gastric perforation out of 125 consecutive perforated peptic ulcer patients operated by him⁶. Chin-Howong et al reviewed records of 9 patients with posterior perforation over a twelve year period. The diagnosis was made intraoperatively in all cases; common findings include sealed perforation, localized retroperitoneal abscess or generalized contamination of the lesser sac and peritoneal cavity⁴. Posterior gastric perforation has also been documented in neonates. Ashoky kshirsngar et al reported 3 cases of neonatal gastric perforation. Two of them occurred posteriorly. They hypothesized that spontaneous perforation in neonate are due to congenital defects in the muscular wall of the stomach.⁵

Perforation rarely occurs spontaneously. It may be due to chronic usage of non-steroidal anti-inflammatory

drugs, as was the case with our patient. Prashant Tubachi et al reported a case of posterior gastric ulcer perforation complicating acute pancreatitis⁸, while Gill et al also reported a case of gastric perforation associated with tuberculosis⁷.

The clinical presentation of posterior gastric ulcer perforations depends on its location within the stomach. Ulcers situated in the fundus or body of the stomach perforate into lesser sac leading to lesser sac abscess and consequent generalized peritonitis as seen in our patient. Ulcers in the pylorus perforate into the retroperitoneal space mimicking posteriorly perforated duodenal ulcer with attendant retroperitoneal extravasation and abscess formation⁸. This is why the clinical presentation of gastric ulcer perforation is of insidious onset, characterised by late presentation and missed diagnosis at laparotomy with consequent high morbidity and mortality.

The finding of pneumoperitoneum on chest x-ray and abdominal x-ray will definitely be an indication for emergency laparotomy. If a perforation is not located in the anterior duodenum or stomach or anywhere in the gastrointestinal tract, effort should be made to open the gastrocolic omentum to identify posteriorly located gastric ulcer. Computerized tomography has been found reliable in suspicious cases⁹.

CONCLUSION

Posterior gastric ulcer is not commonly encountered. Delayed presentation and anatomical location predispose to high morbidity and mortality. A high index of suspicion is needed to identify and diagnose this rare clinical entity.