

Perforated Peptic Ulcer Mimicking Strangulated Femoral Hernia – a Rare Presentation

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Case Report

Abstract: Peptic ulcer perforation presents no difficulty in diagnosis when large quantity of gastric content floods the peritoneal cavity. Presentation is atypical and diagnosis is difficult when the stomach is either atypical in location or when the leaking gastric content becomes localized in specific areas. Here we present a case of perforated peptic ulcer, presenting as strangulated femoral hernia, because of sequestration of gastric contents in an empty femoral hernia sac.

Keywords: peptic ulcer perforation, duodenal ulcer perforation, strangulated femoral hernia.

Introduction

Perforated peptic ulcer is a life threatening surgical emergency. In the developing world, patient present late in the course of the disease and because of the delay, the presentation of perforated peptic ulcer is varied and may mimic many other conditions. Here we present a duodenal ulcer perforation presenting as a case of strangulated femoral hernia, which is a very rare presentation.

Case Report

A 60 year old male, farmer by occupation, presented with complaints of abdominal pain for the past 3 days. He also complained of a left groin swelling for the past 3 months which had become irreducible for the past 3 days. He had a few bouts of vomiting over the last 3 days and was

constipated. He had noticed the left groin swelling about 3 months ago which was painless and reducible. During the last 3 days, the groin swelling has become painful and irreducible. On examination, he was mildly dehydrated and his pulse rate was 96 per minute and blood pressure was 100/70 mmHg. On examining left groin, a 3x3 cm swelling was seen in the left groin (Figure.1) which was situated below and lateral to the pubic tubercle, conforming to the site of femoral hernia. The groin swelling was warm, tender and irreducible. There was no cough impulse. There was generalized tenderness all over the abdomen with guarding and rigidity. Per rectal examination revealed anterior wall bulge indicating fluid collection in the rectovesical pouch. Routine laboratory investigations were within normal limits. X-ray chest did not reveal any gas under the diaphragm and x-ray abdomen showed opacity all over abdomen indicating peritonitis. Based on these findings a diagnosis of left sided strangulated femoral hernia was made. The peritonitis features were thought to be due to perforation of bowel within the hernia sac, since Richter's type of hernia is common in femoral hernia, which is prone for perforation without any evidence of obstruction.



Figure 1: Showing the left sided strangulated hernia

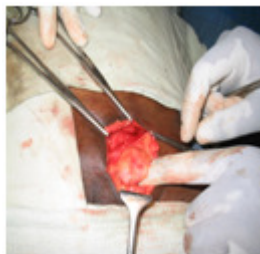


Figure 2: Showing the femoral hernia being dissected.



Figure 3: Showing empty femoral hernia sac

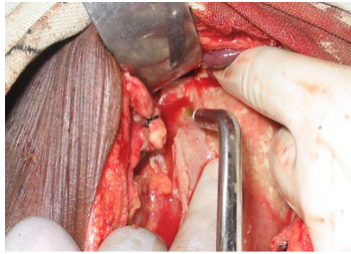


Figure 4: Showing a small duodenal ulcer perforation in the first part of the duodenum



Figure 5: Post operative photograph showing healed midline laparotomy scar and femoral hernia repair scar on the left side below the inguinal ligament.

Surgical Procedure

Under general anesthesia, through a crural incision, the femoral hernia was explored. The sac was opened and found to be empty of bowel contents and contained purulent material only. (Figures.2, 3). Since the sac contained only pus, it was decided to explore the abdomen and the source of the pus was presumed to be in the lower abdomen and hence a incision below the umbilicus was made. No pathology was detected in the lower abdomen and hence the incision was extended above the umbilicus. A perforation of about 5mmx5mm was present in the anterior wall of the first part of the duodenum (Figure.4). The perforation was closed with an omental patch. Abdomen was closed after thorough peritoneal lavage. A drain was kept in the right flank. The femoral hernia was repaired using prolene sutures. Both wounds healed well (Figure.5) and the postoperative period was uneventful.

Discussion

Classic al peptic ulcer perforation presents with dramatic onset of severe epigastric pain which soon spreads to involve the whole abdomen. Nausea and vomiting are usual. The abdomen becomes rigid and the patient lies motionless in the bed, because even a small amount of movement causes unbearable pain. Atypical presentation of perforated peptic ulcer occurs when the stomach is abnormal in position or when the typical flooding of the peritoneal cavity by gastric fluid does not occur i.e. the gastric fluid may remain localized around the stomach or it may tract down to various location leading to confusion in diagnosis. When the stomach lies in a hiatus hernia and gastric ulcer perforates can mimic mediastinal abscess¹. Such an ulcer perforation has also been reported to cause pneumopericardium and cardiac tamponade by Bruhl *et al*², and Taniyama *et al*³. Perforated peptic ulcer cans also mimic spontaneous pneumothorax⁴. Perforation into pleural cavity can mimic Boerhaave's syndrome⁵. Respiratory distress and chest pain have been reported as presenting manifestations by David I Bruner *et.al*⁶. ECG changes associated with perforated duodenal can mimic acute myocardial ischemia^{7, 8, 9}. Gastric ulcer has been known to perforate in an epigastric hernia and mimic

strangulated epigastric hernia^{10, 11}. A.R.H. Oakley has reported strangulation of a right inguinal hernia containing part of the stomach, with simultaneous perforation of a gastric ulcer¹². Peptic ulcer perforation mimicking tubo-ovarian abscess has been reported by Su Hy *et al*¹³. Perigastric and subphrenic abscess area well known complications of perforated peptic ulcer¹⁴ and when the perforation is small and peritoneal flooding is limited to the perigastric area, the diagnosis of perforation may be missed. Perforated peptic ulcer mimicking appendicitis is known as Valentino's syndrome¹⁵. The mechanism is that the leaking gastric fluid tracks along the right paracolic gutter and reaches the right iliac fossa. Irritation of the parietal peritoneum of the right iliac fossa mimics acute appendicitis. In our patient, the fluid has travelled beyond iliac fossa and entered the empty left femoral hernia sac. Irritation of the parietal peritoneum of the femoral hernia sac has led to the clinical features of strangulated femoral hernia. To our knowledge, such a presentation has not been reported so far. In up to 30% of cases, x-ray may not show free air under the diaphragm^{16, 17}. Probably our patient might be one among those 30%. Richter's type of hernia is a common occurrence in femoral hernia. In this type, strangulation and perforation can occur without intestinal obstruction^{18, 19}. When strangulation is suspected in a femoral hernia, Mc Evedy's approach²⁰ is optimal.

Conclusion

We have presented a case of perforated peptic ulcer which mimicked a strangulated femoral hernia which was managed successfully by exploring the femoral canal as well as peritoneal cavity. Peptic ulcer perforation presenting as strangulated femoral hernia is extremely rare.

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