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Posterior Stomach Wall Perforation: An Interesting Case Report

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ABSTRACT

Patients with an anteriorly perforated peptic ulcer present with an acute onset of severe abdominal pain and exhibit signs of peritonitis at presentation. Diagnosis of an acute abdomen can often be made on clinical grounds and an emergency operation performed. Posterior perforation of gastric ulcer is a unique category of peptic ulcer perforations with a distinct clinical presentation. While it is rare, awareness of this surgical emergency is important, as this condition is associated with a high morbidity and mortality. The diagnosis is commonly missed because of the indolent nature on the initial symptoms with catastrophic outcome. We report a case of posterior perforation of gastric and review the literature to highlight the key features of this condition.

INTRODUCTION

Perforated peptic ulcer is comparatively uncommon and usually happens in ventral (anterior) aspect. Most familiar type of perforation affiliated with stomach is anterior perforation observed in pyloduodenal area. Posterior/dorsal perforation is a rare clinical entity. Posterior gastric ulcer perforation is a unique category of peptic ulcer perforation with a distinctive clinical presentation. Its phenomenon may be covered up by diffuse nature of illnesses of this disease, resulting in delays and difficulties in patient presentation to surgeon and corresponding raise in incidence of morbidity and death. Gastric tissue is integrated and adjusted to sustain digestive activity of gastric juice usually synthesized by stomach., furthermore, sensitivity of gastric tissue is negatively impacted by infection. With H. Pylori, smoking cigarettes and intake of non-steroidal anti-inflammatory drugs^[1,2]. A high level of great standard suspicion is necessary for a well before diagnosis of posterior gastric perforation., diagnosis was made intraoperatively in most of cases. Early identification and initiation of intervention in these cases is critical to enhance likelihood of living and survival of patient^[3,4].

Case Report: A 74-year-old man was admitted with a complaint of abrupt onset of dull aching pain in epigastric region for two days, followed by deepening and widening/generalisation of pain. Constipation is present for two days. On examination, abdomen was distended, tender all over with guarding and rigidity positive. CECT Abdomen and pelvis revealed perforation of the posterior wall of stomach with surrounding inflammation (Fig. 1) and a decision has been made to explore abdomen.



Fig. 1: Stomach Inflammation

Intra operatively was found to be have perforation of the posterior wall with gastric previous contents like undigested food particles with surrounding abdominal cavity collection was noted in lesser sac so gastrocolic omentum was opened and a small perforation of size <2X2 cm was found on posterior wall of stomach (Fig. 2).

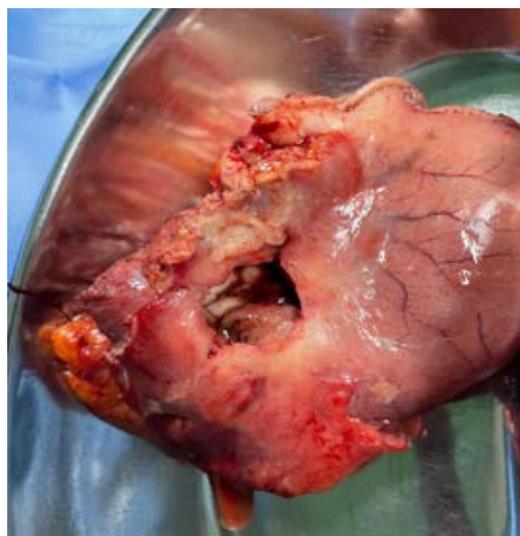


Fig. 2: Peritoneal Cavity

Distal gastrectomy with gastrojejunostomy was done. patient was recovered and later discharged on post operative day 7. Surprisingly on HPE it was found to have adenocarcinoma and was started on chemotherapy.

RESULTS AND DISCUSSIONS

Spontaneous nontraumatic posterior perforation of gastric ulcer is a rare entity. Understanding the anatomical relations of the stomach is important in understanding these perforations. Posterior gastric ulcers may erode into the lesser sac behind the stomach (for gastric ulcers in the fundus or body of the stomach) or the retroperitoneal space (pyloric ulcers)^[5]. The local inflammatory reaction and fibrosis of the surrounding adherent retroperitoneal tissue contribute to sealing off the perforation. This explains the rarity of this entity and the vague and insidious symptoms that characterize such perforations when they occur. The lesser sac behind the stomach is a potential space and is less effective in sealing off a posteriorly situated gastric ulcer eroding through the wall of the stomach^[6]. In contrast, the pyloroduodenal channel is firmly adherent to the retroperitoneal space and therefore may be less prone to posterior perforations. The clinical presentation of posterior gastric perforations is much less dramatic than that of the more common anterior perforations. Delayed presentation is a characteristic of posterior perforations. Patients typically report gnawing epigastric or hypochondrium pain of a variable duration. These perforations are commonly missed on initial examination. As in our patient, the abdominal examination is often equivocal for an acute abdomen, with minimal or no guarding, rebound tenderness and peritonitis. Specific radiographic signs associated with retroperitoneal perforations are pneumomediastinum

and retroperitoneal air. Computed tomography scan is of value in suspicious cases, as it is more sensitive for detecting pneumoperitoneum and can delineate retroperitoneal and intraperitoneal structures. Ca Stomach is a disease of complex etiology involving multiple risk factors and multiple genetic and epigenetic alterations. Control of *H. pylori* infection by means of eradication or immunization is likely to have immense potential in stomach cancer prevention. In addition, changes in dietary habits and lifestyle could reduce the incidence of stomach cancer especially in high prevalence areas. There is now evidence that mutations in a number of genes as well as genetic polymorphisms are associated with an increased risk for stomach cancer^[7-9]. Despite the availability of new drugs and association regimens, the therapeutic outcome for gastric cancer is still dismal. Knowledge of the diverse risk factors together with current genomic and proteomic technologies would help in identification of high-risk individuals, targeting precursor lesions, improving preventive strategies and providing appropriate personalized therapy^[10]. More rigorous, larger scale and controlled studies are however required to validate the genetic markers. Pharmacogenetics may be an attractive approach to optimize therapeutic regimens and minimize adverse side effects. Multitargeted preventive and therapeutic strategies for gastric cancer are a major challenge for the future^[11].

CONCLUSION

Worldwide, stomach cancer incidence and mortality have declined significantly during the past five decades. However, stomach cancer remains a global health problem as the fifth leading cancer and fourth most common cause of cancer-related deaths in the world. Further illumination of risk factors can help identify various opportunities for prevention^[12,13].

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