E-ISSN: 2616-3470
P-ISSN: 2616-3462

www.surgeryscience.com
2023; 7(2): 08-10
Received: 03-01-2023
Accepted: 04-02-2023

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A case report of kissing ulcers, post-trauma

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DOI: https://doi.org/10.33545/surgery.2023.v7.i2a.988

Abstract
Peptic ulcer is a Common diseuse with potentially serious complications. Perforation of the ulcer is one such complication that can be fatal if left untreated. We present a rare case of kissing peptic ulcers in a 42-year-old patient who presented with hematemesis and melena and was admitted to the intensive care unit with hemorrhagic shock post trauma. Despite failed endoscopic hemostasis measures, the patient was successfully treated with surgical intervention. The ulcers were located on the anterior and posterior walls of the stomach and were facing each other, a rare condition know as an ulcer of kissing. This case report highlights the importance of early diagnosis and prompt management of peptic ulcer disease to prevent potentially fatal complications.

Keywords: Gastric ulcer, duodenal ulcer, kissing ulcer, perforation, hemorrhagic shock

Introduction
Gastric or duodenal ulcers are erosions that form in the inner lining of the stomach or duodenum, resulting from chronic inflammation of the wall, tobacco use, or anarchic consumption of anti-inflammatory drugs. These ulcers develop due to the aggression of the mucous membrane by the acidity of the gastric liquid. The mucous inner lining of the stomach contains cells that produce gastric juice, essential for the digestion of food, and cells that secrete mucus and bicarbonate to protect the lining from gastric juice. When this protective system is disrupted or when acid secretion increases, the gastric liquid attacks the mucous membranes, leading to inflammation and gradual formation of an ulcer that digs into the mucous membrane. Perforation of either gastric or duodenal ulcers can be a fatal complication, with an estimated incidence of 4-14 cases per 100,000 inhabitants and an overall mortality rate of 3%-27% globally. Without treatment, the mortality rate can increase to 50% in 24 hours. Conservative management with drugs, endoscopy, and/or radiology has significantly decreased the need for emergency surgical intervention, which is performed in less than 2% of all peptic ulcer perforation cases. Although the incidence of ulcer perforation has decreased and its complications are well known, kissing peptic ulcers remain a rarely reported phenomenon in the literature.

Case presentation
The patient in this case study is a 42-year-old male who presented to the emergency department with a two-day history of abdominal pain, hematemesis, melena and a history of trauma two days prior the admission. The patient was a known smoker for the past 20 years, but had no history of hypertension, jaundice, alcohol abuse. There was no past history of NSAID analgesic use.

At presentation, the patient's hemodynamics were unstable with a blood pressure of 7/3 mmHg, heart rate of 110 beats per minute, and decolored conjunctivae. On physical examination, an abdominal contraction was noted.

The patient's medical history and physical examination findings were highly suggestive of an acute gastrointestinal bleeding event, and further investigation was necessary. Laboratory results revealed a hemoglobin level of 5.9 g/dL and a hematocrit level of 18.2%, indicating severe anemia.

In light of these findings, an upper gastro-intestinal endoscopies was performed to identify the source of the bleeding. The endoscopic évaluations revealed a large ulcer in the stomach with Sloughing of the base and active bleeding.

Despite endoscopic measures of hemostasis, the bleeding continue, and the patient was taken to the operating room for an exploratory laparotomy.

During the surgical intervention, two ulcers were identified in the stomach, one on the anterior wall and one on the posterior wall, facing each other. The ulcers were of size 3x2 cm and 1x2 cm, respectively, with sloughed bases and active bleeding. The ulcers were classified as "kissing ulcers" due to their close proximity to each other.

Fig 1: Image of the kissing ulcers

The findings of this case highlight the importance of recognizing the potential complications of peptic ulcers, particularly in patients with a history of trauma and smoking. The rapid onset of severe anemia in this patient underscores the importance of prompt diagnosis and management of gastrointestinal bleeding events.

In this case, endoscopic measures of hemostasis failed, and surgical intervention was necessary to control the bleeding. The identification of kissing ulcers during the exploratory laparotomy highlights the importance of thorough evaluation in patients with suspected gastrointestinal bleeding, particularly when endoscopic interventions are unsuccessful.

The surgical team proceeded to perform a ligature of the gastro-duodenal artery and simple suture of the ulcer. Postoperative recovery was uneventful, and the patient was discharged on the eighth postoperative day.

[1] The patient's presentation and management were consistent with peptic ulcer disease, a condition characterized by the erosion of the mucosal lining of the stomach or duodenum. The most common causes of peptic ulcer disease include Helicobacter pylori infection, no steroidal anti-inflammatory drug use, and smoking. Hemorrhage and perforation are potential complications of peptic ulcer disease, which can be life-threatening. The incidence of peptic ulcer perforation is estimated to be between 4 and 14 cases per 100,000 individuals. The mortality rate without any treatment, either conservative or surgical, is as high as 50% in 24 hours. Endoscopic and radiologic hemostasis measures are effective in most cases, but surgery is required in cases of failed endoscopic therapy.

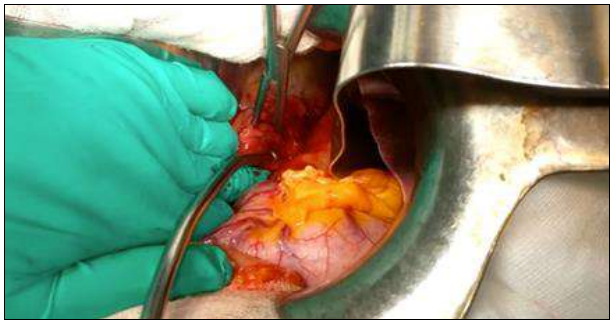

Fig 2: Image of sutures of the ulcers

Overall, this case highlights the importance of prompt recognition and management of gastrointestinal bleeding events, particularly in patients with risk factors for the development of peptic ulcers.

Discussion

The rarity of this presentation may be attributed to the fact that ulcer perforation incidence has decreased, and the complications of the disease are less frequent. However, this case emphasizes the importance of considering the possibility of a kissing ulcer in cases of peptic ulcer perforation in case of trauma history.

[2] The patient in this case had a history of trauma as well as history of smoking, which is a well-known risk factor for peptic ulcer disease. Other risk factors include chronic use of no steroidal anti-inflammatory drugs (NSAIDs), infection with Helicobacter pylori, stress, and alcohol abuse

The chronic use of no steroidal anti-inflammatory drugs (NSAIDs) has been associated with an increased risk of developing gastrointestinal (GI) complications, including ulcers. NSAIDs work by inhibiting the production of prostaglandins, which are natural substances that help protect the lining of the stomach and intestines from damage. When prostaglandin production is reduced, the stomach and intestinal lining can become more vulnerable to damage from stomach acid and other irritants

The absence of a history of NSAID use or alcohol abuse suggests that the trauma to the stomach and the heavy smoking history may have been the primary risk factor in this patient's case.

[4] Kissing gastric ulcers can arise due to trauma inflicted on the stomach from various causes, including blunt force trauma, surgical procedures, or ingestion of foreign objects. Such trauma can lead to the development of gastric ulcers, some of which may be in close proximity to each other, giving rise to the kissing gastric ulcer phenomenon. One proposed theory is that trauma induces local ischemia or reduced blood flow to the stomach lining, thereby increasing the susceptibility to ulcer formation from stomach acid. While the exact mechanism underlying this phenomenon remains unclear, treatment typically involves addressing the root cause of the ulcers and may include acid-suppressing medications to facilitate healing.

The management of kissing gastric ulcers triggered by trauma generally entails tackling the root cause of the trauma, such as undergoing surgery or eliminating foreign objects. Alongside, medications to alleviate stomach acid and facilitate ulcer healing may also be prescribed. With appropriate care, the majority of patients can experience complete recovery from this infrequent ailment.

[3] The prevention of ulcer disease in chronic NSAID users is a complex and challenging issue since No steroidal anti-inflammatory drugs (NSAIDs) are commonly used for pain management, but their chronic use is associated with the risk of ulcer disease. Several strategies have been proposed for

preventing ulcer disease in chronic NSAID users, including proton pump inhibitors (PPIs) and misoprostol. However, these strategies can be costly, and their cost-effectiveness in different patient populations is not well understood.
Further research is needed to validate this approach in different patient populations and healthcare settings.
In conclusion, the presented case highlights the potential severity of peptic ulcer perforation and the importance of prompt and appropriate management. The rare presentation of an ulcer of kissing emphasizes the need for careful consideration of all possible causes of peptic ulcer perforation, especially when conservative management measures fail. It also highlights the importance of identifying and managing risk factors such as smoking, to prevent the development of peptic ulcers and their complications.

Conclusion

In conclusion, this case report highlights the potentially life-threatening complication of peptic ulcer disease, namely ulcer perforation. The presentation of two ulcers, known as kissing ulcers, is a rare occurrence and adds to the complexity of the case. The failure of endoscopic measures of hemostasis and subsequent need for surgical intervention emphasizes the importance of prompt diagnosis and appropriate management in preventing morbidity and mortality associated with peptic ulcer perforation. This case also emphasizes the need for clinicians to consider the possibility of peptic ulcer disease in patients with trauma.

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How to Cite This Article
Gridda M, Anejar M, Benlahsen M, Ainane M, Sadqi Y, Absi M. A case report of kissing ulcers, Post-trauma. International Journal of Surgery Science. 2023;7(2):08-10.