



ORIGINAL RESEARCH PAPER

General Surgery

A RARE CASE REPORT OF VALENTINO'S SYNDROME (ACUTE APPENDICITIS WITH RETROPERITONEAL DUODENAL ULCER PERFORATION)

KEY WORDS: Valentino syndrome, acute appendicitis, duodenal ulcer, perforation

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INTRODUCTION :

The eponym "Valentino's appendix" was first described in relation to the American actor, Rudolph Valentino. He underwent an appendectomy for acute appendicitis, later developing peritonitis and multiple organ failure that resulted in his death. Autopsy revealed a perforated gastric ulcer. The fluid originating from the perforated ulcer travels through the paracolic gutter to the right iliac fossa, causing peritoneal irritation in that quadrant. The presence of peri-appendicitis during surgery obliges the surgeon to rule out other pathologies and prevent catastrophic consequences.

Case Report :

A 43-year-old male presented to the emergency department with persistent abdominal pain, nausea, and loss of appetite. He mentioned that symptoms started approximately 6 hours before visiting the emergency department. Initially, the patient suffered from an epigastric pain of acute onset that radiated to the right iliac fossa. He described the pain to be stabbing in character, accompanied by 3 episodes of vomiting. He did not mention fever, rigor, or any other symptoms. The patient had a history of duodenal ulcer diagnosed 10 years ago during an endoscopic examination because he experienced a burning sensation in the stomach and abdominal pain after eating. The patient was treated with antibiotics and proton pump inhibitors. He was not taking any medications, and he was not abusing alcohol, tobacco, or any other substances. Percussion of the patient's abdomen revealed pain located both in the epigastrium and the right lower quadrant. During percussion of the left iliac fossa the pain migrated to the right lower quadrant. In addition, palpation of the abdominal wall showed tenderness and guarding. All clinical signs of acute appendicitis and peritonitis such as McBurney, Rovsing, Blumberg, psoas and obturator were positive. His Alvarado score was 8 out of 10.

Laboratory investigations revealed neutrophilic leukocytosis, with a white blood cell count of 17 700 cells/mL . The remaining blood tests were normal. There were no pathological findings on chest and abdominal x-rays . His electrocardiogram (ECG) showed sinus tachycardia . a computed tomography (CT) of the abdomen pelvis was ordered. The study was protocolled for appendicitis (intravenous contrast only). This study revealed pneumoperitoneum centered within the greater sac of the upper anterior abdomen and free fluid in the pelvis . This was favored to be secondary to a perforated duodenal ulcer . The patient underwent an exploratory laparotomy . During the operation, the appendix had no signs of inflammation and free intraperitoneal fluid was found in the right paracolic gutter and iliac fossa. An extensive Kocher maneuver was performed and a perforation of a duodenal ulcer to the retroperitoneum was found along with a small amount of fluid in the retroperitoneal cavity.

Intraoperatively surgical gastroenterologist opinion was asked for. Primary closure of the duodenal perforation with omental plug along with pyloric exclusion, gastro

jejunostomy, jejunojejunostomy and feeding jejunostomy was performed . Two drain tubes were kept in hepatorenal pouch and in pelvis . The patients post op course was uneventful and he was discharged 15 days after surgery .

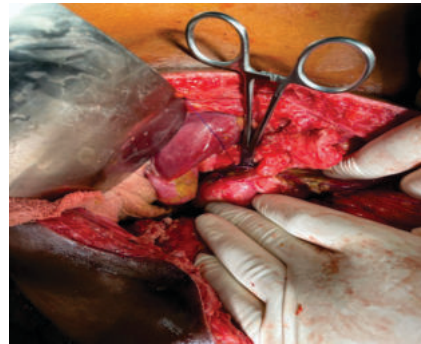
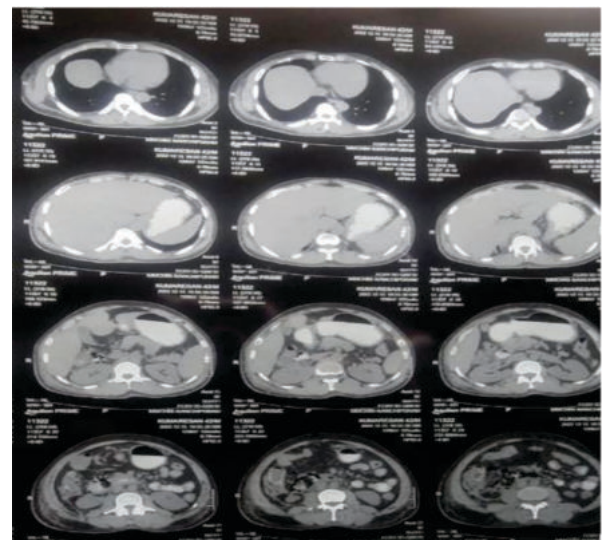


Figure Showing Perforation In D2 Segment After Kocherization



Ct Scan Image Showing D2 Perforation

DISCUSSION:

Peptic ulcers are open sores that develop on the inside of the stomach and the duodenum and are divided into gastric and duodenal types. Infection with *Helicobacter pylori*, and long-term use of nonsteroidal anti-inflammatory drugs (NSAIDs) and aspirin are the most common causes of peptic ulcer disease. Uncomplicated peptic ulcer disease presents with symptoms like epigastric pain, bloating, heartburn, nausea, and a burning stomach sensation. Less often, ulcers can cause severe symptoms such as melena and hematemesis . Perforation of these ulcers is considered a surgical emergency with increased morbidity and mortality if the duration of the perforation exceeds 24 hours and the size is greater than 1 cm.

Perforated peptic ulcers usually present with a sharp epigastric pain of sudden onset that sometimes radiates to the shoulder, indicating free abdominal air. The anterior duodenal wall is the most common site of perforation, accounting for 60% of the cases, and it is the most frequent type in Western countries .The perforation of a duodenal ulcer through the retroperitoneum, presenting with pain in the right lower quadrant because of fluid leakage and accumulation in the right paracolic gutter, is known as Valentino's syndrome. It presents as an acute surgical abdomen mainly mimicking acute appendicitis, and it leads the patient straight to the surgical theater; thus, the final diagnosis is established during the operation. After extensive literature review, we found only 5 cases, and in half the cases, the diagnosis was formed prior to operation with a computed tomography (CT) scan, which is the examination of choice. Signs found on CT imaging include right retroperitoneal free air, mainly around the right kidney, known as "veiled right kidney sign", thickening of the wall of the duodenum, and free air around the duodenum. Simple chest and abdominal x-rays may illustrate free intraperitoneal air under the right diaphragm or around the right kidney, confirming the hypothesis for perforation of the duodenum . Inability to perform a CT scan at this point suggests that an exploratory laparoscopy should be performed, which is recommended for the investigation of an acute surgical abdomen when there is a suspicion, but not a definite diagnosis of acute appendicitis .

In the current case report, the patient had no signs of free intraperitoneal air on x-ray images . Even though the clinical scenario resembled features of acute appendicitis, ct scan was ordered to rule out any other pathologies . Duodenal perforation was picked up in the ct scan . Surgeons should suspect peptic ulcer perforation in a patient with signs similar to acute appendicitis and a history of duodenal ulcer. There are a few options regarding the management of a perforated peptic ulcer. The Taylor method is non-invasive, and it is based on combination of antibiotic treatment, H. pylori triple therapy, intravenous fluids, naso-gastric tube aspiration and clinical observation of the patient. When surgical operation is preferred and the site of perforation is identified, then simple closure may be performed. Surgical techniques that can be used are simple closure with intermittent sutures, with or without omentoplasty; an omental plug drawn into the site of perforation and sutured over; and finally, an omental patch after Graham technique. Simple closure during exploratory laparoscopy is the minimally invasive technique, followed by eradication of H. pylori .

CONCLUSION :

Perforation of a duodenal ulcer through the retroperitoneum rarely may present by mimicking acute appendicitis. Surgeons should include perforation of a peptic ulcer in the differential diagnosis of patients presenting with right lower quadrant pain, and a CT scan should be the examination of choice. This report adds to the published literature on cases of Valentino's syndrome. Thus, careful attention to alternative causes of acute right lower quadrant pain is critical in the

workup of acute abdomen, both preoperatively and intraoperatively.

REFERENCES:

1. Wijegoonewardene S, Stein J, Cooke D, Tien A. Valentino's syndrome a perforated peptic ulcer mimicking acute appendicitis. *BMJ Case Rep.* 2012;2012:bcr0320126015. [PMC free article] [PubMed] [Google Scholar]
2. Iloh A, Omorgobe S, Osime O. Surgeons beware: It may not be acute appendicitis. *Arch Int Surg.* 2017;7:139-41. [Google Scholar]
3. Mohan CP, Kabalimurthy J, Balamurugan E, Jayavarma R. A rare case of Valentino's syndrome. *Int Surg J.* 2018;5:2933-35. [Google Scholar]
4. Durai R, Hoque H, Ng P. The acute abdomen - commonly missed and misdiagnosed conditions: Review. *Webmed Central Surgery.* 2010;1:WMC001036. [Google Scholar]
5. Patel NB, Wenzke DR. Evaluating the patient with right lower quadrant pain. *Radiol Clin North Am.* 2015;53:1159-70. [PubMed] [Google Scholar]
6. Mbarushimana S, Morris-Stiff G, Thomas G. Atypical presentation of perforated peptic ulcer disease in a 12-year-old boy. *BMJ Case Rep.* 2014;27:bcr2014204716. [PMC free article] [PubMed] [Google Scholar]
7. Malfertheiner P, Chan FK, McColl KE. Peptic ulcer disease. *Lancet.* 2009;374:1449-61. [PubMed] [Google Scholar]
8. Bertleff MJ, Lange JF. Perforated peptic ulcer disease: A review of history and treatment. *Dig Surg.* 2010;27:161-69. [PubMed] [Google Scholar]
9. Amann C, Austin A, Rudinsky S. Valentino's syndrome: A life-threatening mimic of acute appendicitis. *Clin Pract Cases Emerg Med.* 2017;1:44-46. [PMC free article] [PubMed] [Google Scholar]
10. Ramirez-Ramirez M, Villanueva-Saenz E. Valentino's syndrome. Perforated peptic ulcer with unusual clinical presentation. *Rev Gastroenterol Mex.* 2016;81:225-26. [PubMed] [Google Scholar]
11. Mahajan P, Abdalla M, Purayil N. First report of preoperative imaging diagnosis of a surgically confirmed case of Valentino's syndrome. *J Clin Imaging Sci.* 2014;4:28. [PMC free article] [PubMed] [Google Scholar]
12. Golash V, Willson PD. Early laparoscopy as a routine procedure in the management of acute abdominal pain: A review of 1,320 patients. *Surg Endosc.* 2005;19:882-85. [PubMed] [Google Scholar]
13. Raimes SA, Devlin HB. Perforated duodenal ulcer. *Br J Surg.* 1987;74:81-82. [PubMed] [Google Scholar]
14. Tomtitchong P, Siribumrungwong B, Vilaichone RK, et al. Systematic review and meta-analysis: *Helicobacter pylori* eradication therapy after simple closure of perforated duodenal ulcer. *Helicobacter.* 2012;17:148-52. [PubMed] [Google Scholar].