ACG CASE REPORTS JOURNAL

IMAGE | COLON

Chilaiditi's Sign: A Rare Cause of Abdominal Pain

Parastoo Jangouk, MD[1], Farhan Zaidi, MD[1], and Jana G. Hashash, MD[2]

[1]*Department of Medicine, University of Pittsburgh Medical Center, Pittsburgh, PA*
[2]*Division of Gastroenterology, Hepatology, and Nutrition, University of Pittsburgh Medical Center, Pittsburgh, PA*

Case Report

A 57-year-old woman with anxiety, depression, fibromyalgia, and bipolar disorder presented for evaluation of abdominal pain and constipation of 8 months duration. The pain was constant, gnawing, and occurred diffusely over her abdomen. The patient had associated increased gas and bloating. She had been having a bowel movement every 3 days without any bright red blood per rectum or melena. Bowel movements would improve the abdominal pain and bloating. There was no associated weight loss, fevers, or night sweats. Physical examination revealed a soft non-distended abdomen with normal active bowel sounds. The patient had diffuse tenderness supra-umbilically without any rebound or guarding. Laboratory tests, including a complete blood count, basic metabolic panel, and liver function tests, were unremarkable. CT scan of the abdomen revealed an abnormally malpositioned cecum and proximal right colon located within the right anterior subphrenic space immediately adjacent to the right lobe of the liver, consistent with Chilaiditi's sign (Figure 1 and Figure 2). There was no evidence of obstruction or intraperitoneal free air.

Chilaiditi's sign refers to a rare incidental radiologic finding where intestinal loops, especially colon, are malpositioned between the liver and the right hemidiaphragm. The incidence of Chilaiditi's sign is less than 0.3% and the etiology may be congenital or acquired.[1] Acquired risk factors include chronic constipation, obe-

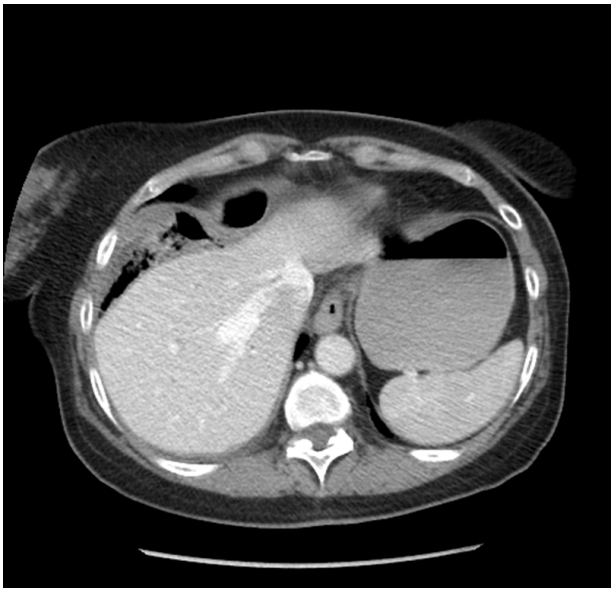

Figure 1. Abdominal CT scan shows malpositioned cecum adjacent to the right lobe of liver.

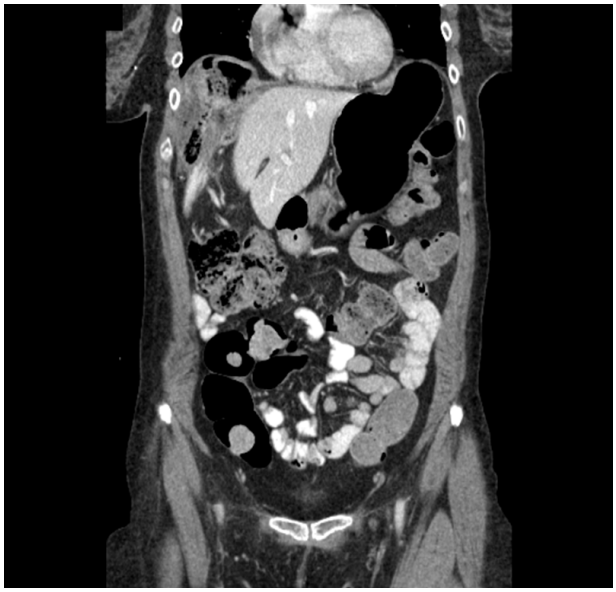

Figure 2. Abdominal CT scan shows malpositioned cecum and proximal right colon within the right subphrenic space without signs of obstruction or intraperitoneal free air.

ACG Case Rep J 2014;1(2):70–71. doi:10.14309/crj.2014.3. Published online: January 10, 2014.

Correspondence: Parastoo Jangouk, MD, Department of Medicine, University of Pittsburgh Medical Center, 200 Lothrop Street, Suite N715, Pittsburgh, PA 15213 (jangoukp@upmc.edu).

sity, multi-parity, ascites, liver atrophy, previous intestinal surgery, chronic lung disease, and paralysis of the right hemidiaphragm.[1] Chilaiditi syndrome refers to the medical condition in which patients with Chilaiditi's sign become symptomatic. The most common presenting symptoms are abdominal pain, distention, nausea, vomiting, and constipation. More morbid presentations include volvulus, cecal perforation, and perforated sub-diaphragmatic appendicitis.[2] Rarely, patients present with respiratory symptoms including dyspnea and chest pain mimicking angina and require intensive care. The risk of an undiagnosed Chilaiditi's sign is perforation during colonoscopy or liver biopsy. The best diagnostic imaging modality is CT scan. Conservative management should be attempted first to relieve constipation, pain, and distention. Surgery is rarely required and is reserved for patients who fail conservative management and in cases of obstruction, volvulus, or ischemia.

Disclosures

Author contributions: P. Jangouk acquired and interpreted the data, drafted the manuscript, and is the article guarantor. F Zaidi acquired the data and drafted the manuscript. JG Hashash acquired and interpreted the data, and drafted and critically reviewed the manuscript for important intellectual content.

Financial disclosure: No conflicts of interest exist and no funding was obtained for this study.

Informed consent was obtained for this case report.

Received: September 15, 2013; Accepted: December 17, 2013

References

1. Moaven O, Hodin RA. Chilaiditi syndrome: A rare entity with important differential diagnoses. *Gastroenterol Hepatol.* 2012;8(4):276–8.
2. Aldoss IT, Abuzetun JY, Nusair M, et al. Chilaiditi syndrome complicated by cecal perforation. *South Med J.* 2009;102(8):841–3.