

EMPHYSEMATOUS GASTRITIS WITH INTESTINAL PNEUMATOSIS – A VASO-OCCLUSIVE PHENOMENON

Jegan Subramaniam¹, Rajesh Parameshwaran Nair¹, Bhavna Nayal²

1. Department of General Surgery, Kasturba Medical College, Manipal University, Manipal, India
2. Department of Pathology, Kasturba Medical College, Manipal University, Manipal, India

Submitted on: December 2014
Accepted on: December 2014
For Correspondence
Email ID:
neurodoc39@gmail.com

Abstract

Emphysemaotus gastritis secondary to vaso-occlusive disease is a surgical emergency with a mortality rate of 60-80%. Prompt treatment with broad-spectrum antibiotics and surgical revascularization has been reported to be "lifesaving" in several cases.

Keywords: Pneumatosisintestinalis, vaso-occlusive phenomenon

Introduction

Pneumatosisintestinalis is defined as the presence of gas within the wall of the gastrointestinal tract. It is an **imaging sign** rather than a specific diagnosis and it is associated with both benign and life-threatening clinical conditions. The most common life-threatening cause of pneumatosisintestinalis is bowel ischaemia. Computed tomography (CT) is usually requested to detect underlying disease. The presence of pneumatosisintestinalis often leads physicians to make a diagnosis of serious disease. However, an erroneous diagnosis of pneumatosisintestinalis may be made (i.e. pseudo-pneumatosis) when intraluminal beads of gas are trapped within or between feces and adjacent mucosal folds. This is usually suspected retrospectively, after a **negative laparotomy**

for a clinical diagnosis of hollow viscous perforation is made.

Case Report

A 52-year-old man, with no pre-morbid illness, presented with a history of fever, abdominal pain, and hematemesis for 15 days. General physical examination was unremarkable with no signs of decompensated liver disease. However, he had profound epigastric and left hypochondrial tenderness. He was anemic (Hb 9.2 gm%) with elevated liver enzymes (> 1000 IU, secondary to ischaemic hepatitis) and a total leucocyte count of 33.2 with bands suggestive of sepsis. Hepatic viral studies were unremarkable with normal albumin and globulin levels. Gastroduodenoscopy revealed an ulcer with a nodule in the greater curvature of the stomach, without evidence of an active bleed or infarction. Contrast-enhanced

computed tomography (CECT) of the abdomen showed mottled air patches in the wall of the stomach consistent with emphysematous gastritis (Figure 2). Computed tomography revealed superior mesenteric artery thrombosis, and coeliac artery thrombosis (Figure 1). Primary prothrombotic workup ruled out hypercoagulable states. The clinical presentation and radiological signs drove us to a diagnosis of emphysematous gastritis. He was treated conservatively with intravenous antibiotics (commonly secondary to infection) as per the blood culture sensitivity report. Blood was transfused to correct the anemia. Patient showed remarkable improvement and was symptom-free in the subsequent days.

Discussion

“*Gastritis acutaemphysematosa*” is characterized by air within the wall of the

stomach with mucosal breach and associated with infection. [1] Pneumatosis intestinalis, on the other hand, is usually found secondary to mucosal disruption presumably due to over distension from peptic ulcer, annular pancreas, bowel ischaemia (Figure 1), infarction (Figure 2), and necrotizing enterocolitis or rarely in trauma.

Treatment usually depends on (a) the extent of disruption and (b) underlying cause. Emphysematous gastritis (Figure 2) is usually following profound infection with *E. coli*, hemolytic streptococcus [2] as compared to visceral pneumatosis, which often remains cryptogenic. In such scenarios no clear algorithm exists to guide surgical management.

Here we describe a case of Gastric emphysema with intestinal pneumatosis secondary to primary vaso-occlusive disease.

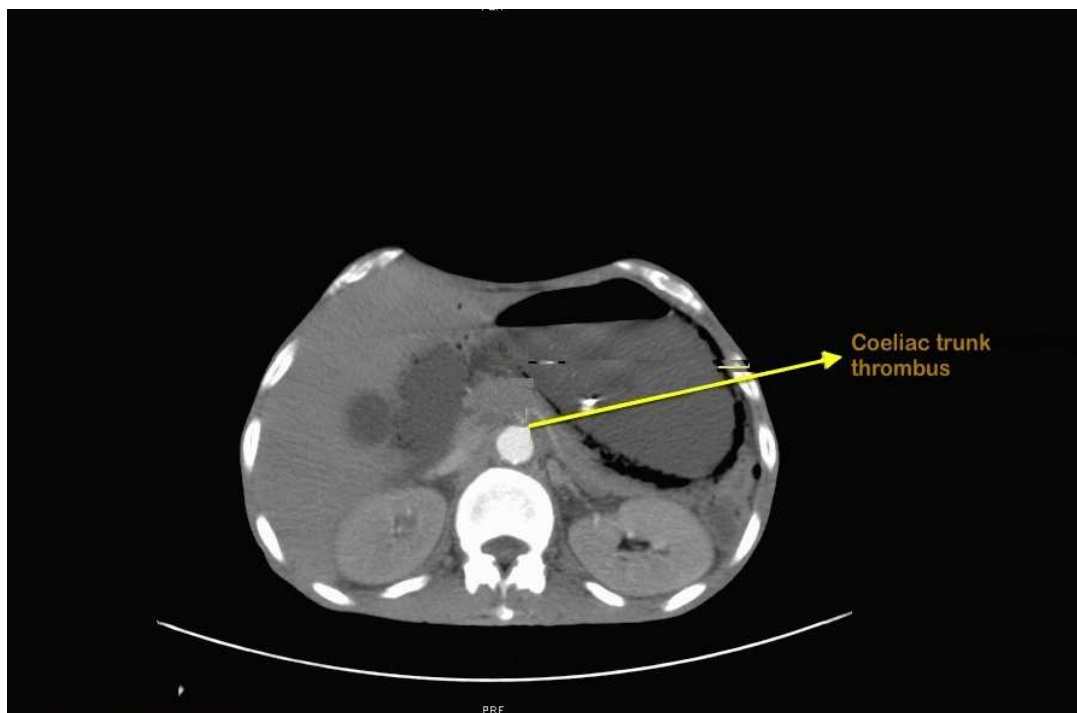


Figure 1: CECT Abdomen (axial cut) showing coeliac artery stenosis

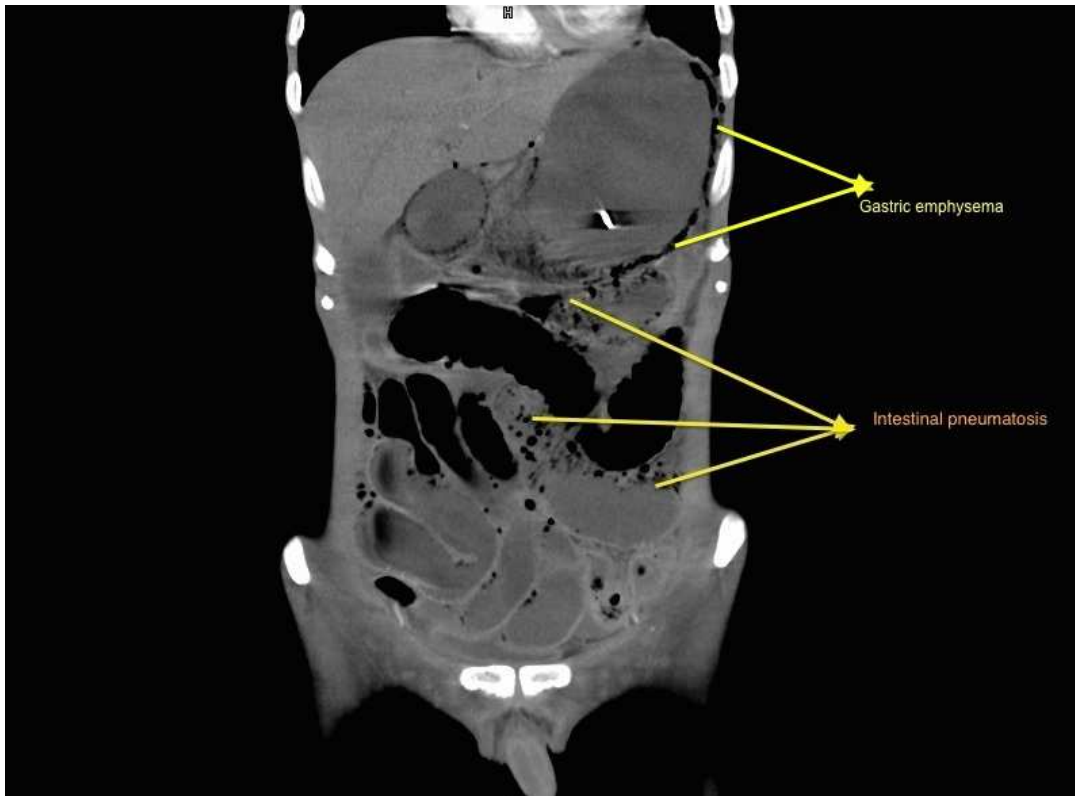


Figure 2: Intramural air within the small bowel loops and stomach CECT Abdomen (Coronal section)

References

1. Kussin SZ, Henry C, Navarro C, Stenson W, Clain DJ. Gas within the wall of the stomach report of a case and review of the literature. *Dig Dis Sci.* 1982;27(10):949-954.
2. Fidvi SA, Klein SA. Clinical Quiz. *ApplRadiol*2002;31(3):33-36.