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Portal Venous Air Resulting in Pneumocardia: A Rare Presentation of Intestinal Ischemia

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Keywords

Pneumocardia; portal venous air; intestinal ischemia; ventricular assist device

Case Description

A 63 year old man with advanced ischemic cardiomyopathy was admitted in fulminant heart failure. His heart failure worsened despite maximal inotropic and intra-aortic balloon pump support necessitating placement of a left ventricular assist device. His immediate postoperative course was complicated by right heart failure and subsequent renal and hepatic dysfunction. His subsequent postoperative course was complicated by multiple episodes of sepsis secondary to pneumonia. On postoperative day 191, the patient went into septic shock. A CT scan of his chest, abdomen and pelvis revealed substantial air in the right atrium and ventricle (Figure 1a), portal venous air (Figure 1b), and severe, diffuse pneumatosis intestinalis (Figure 1c). The patient subsequently expired. To our knowledge, there is only one other reported case of pneumocardia associated with pneumatosis intestinalis.¹ These images portray this exceedingly rare, and catastrophic complication of intestinal ischemia.

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References

1. Tichauer M, Sakpal SV, Chamberlain RS. Right Ventricular Pneumocardia Secondary to Hepatic Abscesses. *Case Rep Gastroenterol.* 2010 Nov 3; 4(3):498–501. [PubMed: 21103210]

Figure 1.