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Aortic infection accompanied by Leriche syndrome: Presenting with acute mesenteric ischemia and spleen abscesses

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Abstract

Aortoiliac occlusive disease, also referred to as Leriche syndrome, is an obstruction of the distal abdominal aorta, iliac and femoropopliteal arteries by cause of atherosclerotic process. The coexistence of aortoiliac occlusive disease and aortic infection has been mentioned in hardly any cases in the literature. Air presence in the aorta is not uncommon in inflammatory and infective conditions. However, aortic air without pseudoaneurysm formation has rarely been reported and is important in the early diagnosis of aortic infections. This report describes a patient with aortic infection accompanied by Leriche syndrome, causing acute mesenteric ischemia and spleen abscesses.

Keywords: Leriche syndrome, Mesenteric ischemia, Spleen abscess, Aortic infection

A 78-year-old male patient with known aortoiliac occlusive disease (**Figure 1**) was admitted to our emergency department (ED) complaining of fever and abdominal pain. On physical examination, the patient had a fever of 39 °C and generalized abdominal tenderness. His blood pressure was 90/50 mm Hg, and his heart rate was 95 beats per minute. Laboratory investigations revealed renal failure, with a creatinine level of 4.5 mg/dL and a urea level of 205 mg/dL. The white blood cell count was 10,750 cells/mm^3, and the C-reactive protein (CRP) level was 386 mg/L.

Contrast-enhanced imaging was not performed because of the renal

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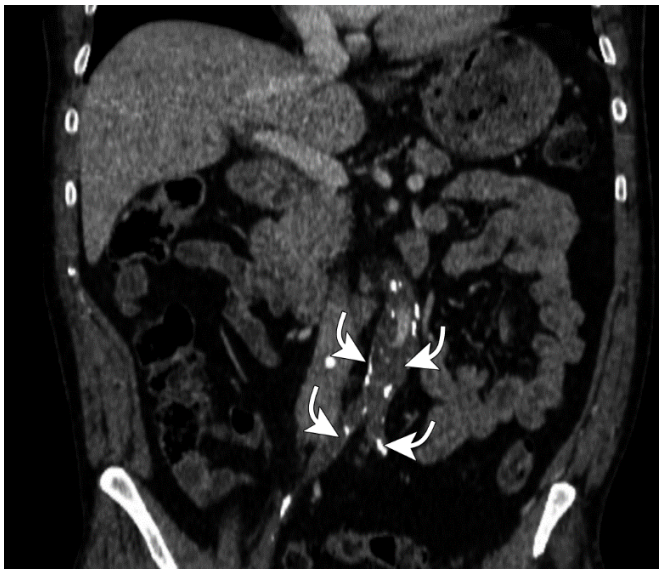
failure. Unenhanced abdominal computed tomography (CT) revealed air bubbles in the thrombotic aortic lumen at the infrarenal level **(Figure 2A)**. In addition, intestinal ischemia findings, such as portal venous gas and pneumatosis intestinalis, and multiple spleen abscesses were observed **(Figure 2B-C)**. Based on these laboratory and imaging findings, acute mesenteric ischemia and splenic abscesses caused by septic embolism due to aortic infection were considered. Therefore, emergency surgery or systemic anticoagulant treatment was not administered. After broad-spectrum antibiotic treatment started in the ED, clinical improvement was observed in the patient's renal functions and bowel ischemia findings.

Figure

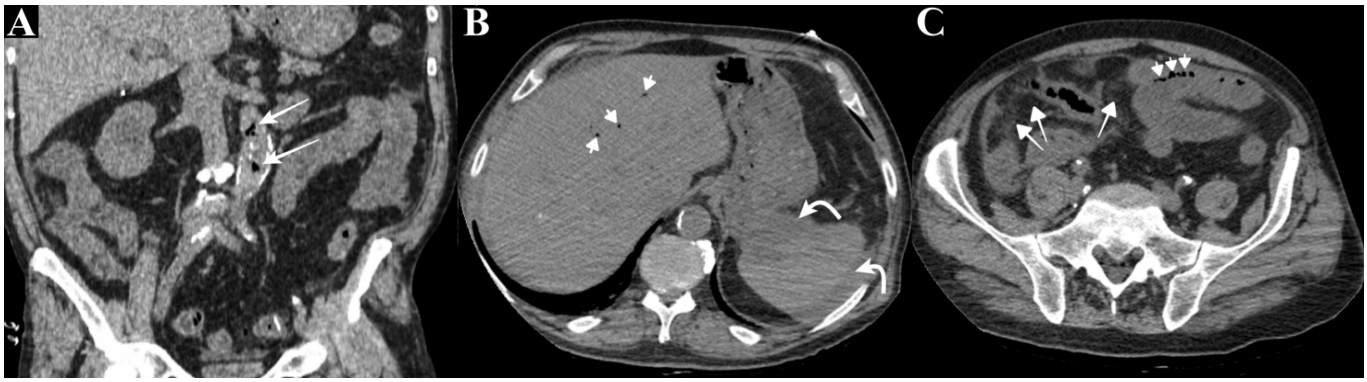


1. Contrast-enhanced CT performed four months before the patient's admission to the emergency department (ED), showing total occlusion of the infrarenal aorta and bilateral iliac arteries (curved arrows).

Aortoiliac occlusive disease, also known as Leriche syndrome, is an atherosclerotic disease characterized by complete occlusion of the abdominal aorta and both iliac arteries. The absence of femoral pulses, erectile dysfunction, and claudication in the pelvis and thighs are among the findings of the disease. An infection of aortoiliac thrombosis is extremely rare and has been reported in only a few cases in the literature [1-3]

Acute mesenteric ischemia due to septic embolism is a very specific scenario. It has been reported in only a few cases of infective endocarditis and, its treatment is enigmatic. The main therapeutic dilemma is related to the use of anticoagulation, and there is insufficient data on its use in the literature [4]. In our case, anticoagulant treatment was not initiated in the ED or during follow-up.

Gas presence in the aorta is not uncommon in inflammatory and infectious processes. However, air bubbles without pseudoaneurysm formation have rarely been reported and are important in the early diagnosis of aortic infections [1]. Mycotic aortic aneurysm accompanied by Leriche syndrome has been reported in the literature, albeit in few cases. In these reports, both surgical treatment and antibiotic therapy alone were used as treatment modalities [1-2]. In our case, the diagnosis was made by the presence of air in the thrombotic aortic lumen without the formation of a pseudoaneurysm, and clinical improvement was achieved with an antibiotherapy.



2.A. Coronal view of non-enhanced abdominal CT performed on admission to the ED, showing the presence of gas (arrows) in the occluded aortic lumen at the infrarenal level.**B.** Axial unenhanced abdominal CT images showing peripherally located portal venous gas (short arrows) and spleen abscesses (curved arrows).**C.** Axial view of unenhanced abdominal CT showing findings of acute mesenteric ischemia findings: presence of pneumatosis intestinalis (short arrows) and mesenteric stranding (long arrows).

To our knowledge, this is a unique presentation of infected aortoiliac thrombosis, which has not yet been reported in the literature. In the ED, infected aortic thrombosis and its complications should be considered in patients with Leriche syndrome, especially in the presence of aortic air on non-contrast abdominal CT. Being aware of this unusual scenario will be helpful in initiating appropriate treatment in the ED and correct management of the patient.

Conflict of Interest: None declared.

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