Acute Limb Ischemia: An Image of Extensive Aortic-Iliac Thrombosis

Isquémia Aguda dos Membros Inferiores: Trombose Aorto-Ilíaca Extensa em Imagem

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The authors report a case of a 65-year-old woman, with a history of ischaemic cardiomyopathy, dyslipidaemia and prior stroke with no sequelae, that presents to the Emergency Room (ER) referring pain in both legs for 4 days, without history of trauma or other symptoms. The physical examination was normal. A Doppler ultrasound was performed excluding venous thrombosis and the patient was discharged with symptomatic therapy. On the following day, she returns to the ER, protracted, with mention of aggravated limb pain, now extended to inferior quadrants of the abdomen. It was then evident a low temperature of the limbs, though symmetric, with signs of hypoperfusion. During her stay, the patient refers paresthesias and the skin becomes marbled, rapidly progressing to cyanosis, feet paralysis and absence of any sensation. No femoral pulses were palpable. A computed tomography angiography was performed documenting an extensive aortic-iliac thrombosis below the level of renal arteries (Fig.s 1, 2). The laboratory evaluation showed a lactate dehydrogenase of 1109 UI/L (reference range: 85-227 UI/L), creatine kinase of 23705 UI/L (39-308 UI/L), myoglobin of 125293 ug/L (<100 ug/L) and hyperlactatemia of 5.2 mmol/L (<2.0 mmol/L). The diagnosis of irreversible acute limb ischaemia (Rutherford category III) was made and the patient was proposed to revascularization surgery with limb amputation, which she recused, given the risks, dying in the subsequent hours under comfort measures.

Acute limb ischemia (ALI) refers to a rapid or sudden decrease in limb blood flow due to acute occlusion of an artery either resulting from embolism, thrombosis, trauma, dissection or, in rarer cases, other uncommon etiologies such as prolonged arterial vasospasm and aortic intimal sarcoma.[1,2] The reported incidence is approximately 1-5 cases per 10 000 persons per year.[1,3] Symptoms develop over a period of hours to days, and it is considered to be acute if it occurs within 2 weeks after its onset.[3] At physical examination, patients can present the six P's, i.e., pain, pallor, poikilothermia, pulselessness, paresthesia and paralysis. In the present case, given the past medical history of the patient, the most likely causes would be thrombosis or embolism. Aortic mural thrombus is usually associated with aneurysmal disease, dissection or severe atherosclerosis of the thoracic or abdominal aorta.[4] Embolism may have a cardiogenic source, being trapped at stenotic lesions, or may result from plaque breakdown.[1] A hypercoagulable state should be ruled out.[3] Rutherford classification is a reproducible system that classifies peripheral arterial disease into acute and chronic limb ischemia, emphasizing that each presentation

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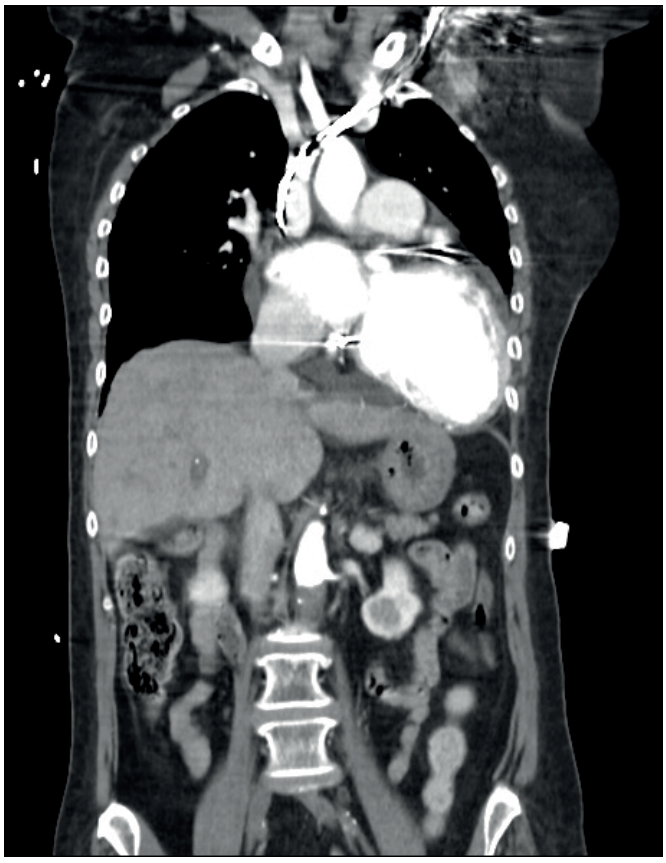

Figure 1. Coronal view of a contrast-enhanced computer tomography showing a complete filling defect which corresponds to a total occlusion of abdominal aorta and iliac arteries.

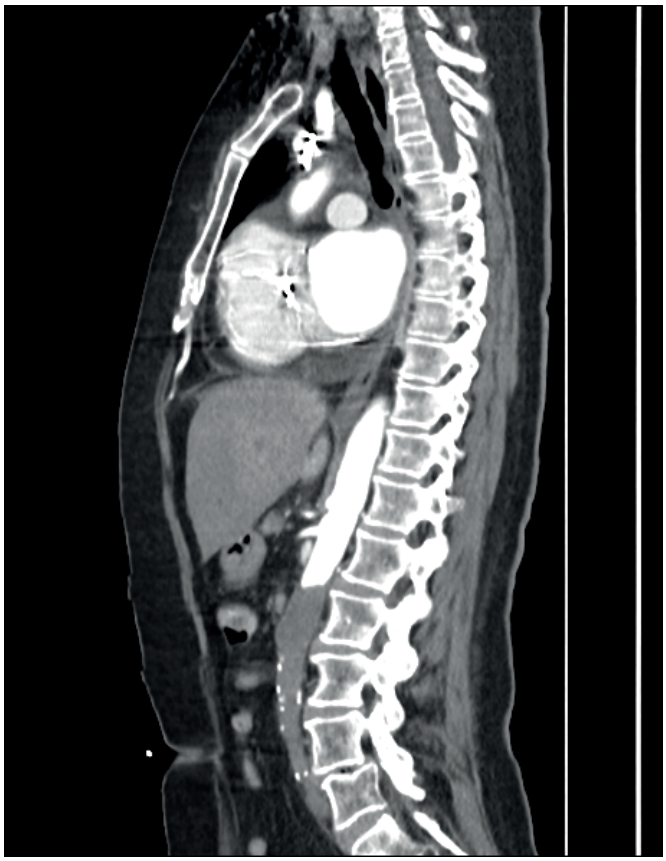

Figure 2. Sagittal plane of the same computed tomography scan demonstrating an absence of contrast below the level of renal arteries caused by an extensive aortic thrombosis.

requires different treatment algorithms.[4] ALI has poor prognosis not only for the limb but also for survival. Despite rapid therapeutic interventions including revascularization and limb amputation, 15%-20% of the patients die.[1,3] Complete acute thrombosis of abdominal aorta carries even higher mortality estimated at 53% of the patients, similar to that of ruptured aortic aneurysm.[5]

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