Medical Image of the Week: Leriche Syndrome

Figure 1. Axial CT of the abdomen demonstrating complete occlusion of the abdominal aorta at the level of the renal arteries (black arrow). An extensive network of collateral arteries is noted throughout the abdomen (white arrow showing representative collateral in anterior abdominal wall). An atrophic left kidney is also noted.

Figure 2. CT runoff demonstrating extensive abdominal network of collateral arteries, with relatively maintained distal perfusion in the setting of complete abdominal aorta occlusion.

A 68-year-old man with GOLD stage 4 COPD was admitted to the Intensive Care Unit for worsening hypoxic and hypercarbic respiratory failure. The patient was treated with steroids for COPD exacerbation, and required continuous BIPAP. On hospital day 2 concern arose for possible pulmonary embolism given worsening oxygenation despite BIPAP, and a thoracic CT angiogram was performed. On imaging, an incidental finding was discovered that the patient had complete occlusion of his aortic artery at the level of the renal arteries with extensive collaterals throughout the abdomen (Figure 1). The patient had palpable pulses in both feet and extremities were warm to touch bilaterally with recovered circulation, as verified on CT runoff (Figure 2). Vascular surgery was consulted, and a decision was made for no surgical intervention given the extensive collateral system and likely chronic time course. On further questioning the patient had limited ability to ambulate due to claudication. The patient also had diminished femoral pulses bilaterally, as well as erectile dysfunction, constituting the triad associated with Leriche syndrome (1).

Adam Berlinberg MD¹, Tanner Elaini MD², and Cameron Hypes MD³

¹Department of Internal Medicine

²Department of Pulmonary and Critical Care Medicine

³Department of Emergency Medicine, Critical Care Medicine

Banner-University Medical Center Tucson

Tucson, AZ

Reference

1. Leriche R, Morel A. The syndrome of thrombotic obliteration of the aortic bifurcation. *Ann Surg.* 1948;127(2):193-206. [\[PubMed\]](#)