

**Title:** An Overlooked Case of Leg Pain

**Author(s):** Maria Rodriguez, DO; Brandon Ozier, MD; Michael Modica, MD.

## **Case Report:**

### **Intro:**

Leriche syndrome, also known as aortoiliac occlusive disease (AIOD), is a rare atherosclerotic disorder that is described as a triad of symptoms including erectile dysfunction, claudication of the lower limbs, and absent or weak peripheral pulses (1). Given the chronic nature of this process, a wide spectrum of presentations can be encountered (2, 3). Given the rarity of the condition, lack of practitioner awareness, and vague presentations making the diagnosis challenging, the incidence and prevalence of this disease process is unknown with significant variation (6).

### **Case:**

A 60-year-old male with a medical history of hypertension, diabetes and atrial fibrillation presented to the ED for worsening left leg pain. Although pain was chronic, he was now unable to walk. He denied any chest pain or shortness of breath, but did endorse erectile dysfunction. He denied taking his dabigatran. He had been seen the day prior at another ED for leg pain without claudication, skin or motor changes at that time. On exam, he was tachycardic to 120 and irregular. Bilateral lower extremities were cool to the touch without palpable pulses and with left leg paralysis. Labs showed rhabdomyolysis (CK 13K) and elevated HS-troponin (19K). The chest x-ray showed a tortuous aorta prompting CT angiography to rule out dissection. However, CT showed complete occlusion of the infrarenal abdominal aorta extending throughout the bilateral iliacs and lower extremities without distal reconstitution and mulit-level fusiform aneurysmal dilatations. He was transferred to a hospital with vascular surgery, underwent emergent right axillary to bilateral CFA bypass, thrombectomy, endarterectomy, and bilateral calf 4-compartment fasciotomies.

His rhabdomyolysis worsened from reperfusion syndrome with concern that aggressive resuscitation could lead to volume overload. On hospital day (HD) #3 underwent washout and left below-the-knee amputation. HD#4 developed abdominal distention with abdominal compartment syndrome and was taken to the OR for exploratory laparotomy noting diffuse necrotic colon and underwent total colectomy. The patient developed worsening acidemia and renal function and volume overload requiring continuous renal replacement (CRRT). However, developed multifactorial shock, refractory acidemia and CRRT was poorly tolerated despite multiple pressors. HD#6 given worsening status, underwent bedside ex-lap with worsening bowel ischemia and gangrenous gallbladder and underwent additional bowel resection and cholecystectomy. The patient was unable to tolerate additional aggressive measures, and the family made the decision to transition to comfort care, passing HD#6.

### **Discussion:**

The variability in the presentation from asymptomatic to critical ischemia, rarity of condition, and poor awareness in practitioners makes the diagnosis challenging. On literature search, only few reported cases have noted sudden onset worsening critical limb ischemia in the span of days in the setting of AIOD. Although the day prior he had denied any claudication, his rapid progression from initial presentation for pain to paralysis emphasizes the need for high index of suspicion in patients with co-morbidities, lower extremity complaints, and concern for acute clot propagation.

Additionally, it is important to consider surgical candidacy, comorbidities and practitioner experience when deciding between treatment approaches as mortality and morbidity rates vary (11). We should consult early, especially vascular surgery, for evaluation of reperfusion/salvage therapies. Although aortobifemoral bypass remains the gold standard, especially in complex lesions, endovascular repair might offer additional benefits to higher risk patients (12). The risk factors for general atherosclerosis are the same that place individuals at risk of AIOD. Finally, early medical management and aggressive lifestyle and risk factors modification leads to improved outcomes.

### **Images/Tables:**

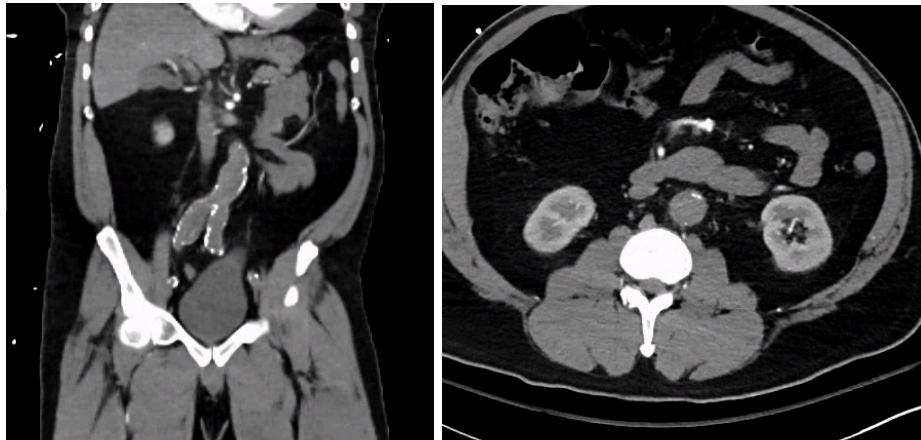


Fig 1. Coronal CTA abdomen showing complete aortoiliac occlusion and associated fusiform aneurysmal dilations

Fig 2. Transverse CTA abdomen showing beginning of complete infrarenal aortoiliac occlusion

## Sources:

1. Marak JR, Narayan S, Navneet Ranjan Lal, Raj G, Gara H. Leriche syndrome: Clinical and diagnostic approach of a rare infrarenal aortoiliac occlusive disease. *Radiology Case Reports*. 2024 Feb 1;19(2):540–6.
2. Rani S, Khaliq A, Batool SA, Khan MU. Aortoiliac Occlusion in a Rare Instance of Leriche Syndrome Type I in a 65-Year-Old Woman With Chronic Leg Discomfort Refractory to Pregabalin. *Cureus*. 2023 Nov 15;
3. Pascarella L, Maen Aboul Hosn. Minimally Invasive Management of Severe Aortoiliac Occlusive Disease. *Journal of Laparoendoscopic & Advanced Surgical Techniques*. 2018 Jan 18;28(5):562–8.
4. LERICHE R, MOREL A. THE SYNDROME OF THROMBOTIC OBLITERATION OF THE AORTIC BIFURCATION. *Annals of Surgery*. 1948 Feb;127(2):193–206.
5. Paisley MJ, Adkar S, Sheehan BM, Stern JR. Aortoiliac Occlusive Disease. *Seminars in Vascular Surgery*. 2022 Apr;
6. Ligush J, Criado E, Burnham SJ, Johnson G, Keagy BA. Management and outcome of chronic atherosclerotic infrarenal aortic occlusion. *Journal of Vascular Surgery*. 1996 Sep;24(3):394–405.
7. Brown KN, Gonzalez L. Leriche Syndrome(Archived) [Updated 2023 Feb 13]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2026 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK538248/>
8. Huei-Lung Liang, Ming-Feng Li, Chia-Chi Hsiao, Chieh-Jen Wu, Tung-Ho Wu. Endovascular management of aorto-iliac occlusive disease (Leriche syndrome). *Journal of the Formosan Medical Association*. Volume 120. Issue 7. 2021. Pages 1485-1492, ISSN 0929-6646. <https://doi.org/10.1016/j.jfma.2020.10.033>.
9. Liedenbaum MH, Verdam FJ, Spelt D, de Groot HG, van der Waal J, van der Laan L. The outcome of the axillofemoral bypass: a retrospective analysis of 45 patients. *World J Surg*. 2009 Nov;33(11):2490-6. doi: 10.1007/s00268-009-0189-x. PMID: 19697078; PMCID: PMC2759976.
10. Wulamu, Wubulikasimu<sup>1,2</sup>; Li, Hai-Lei<sup>3</sup>; Chan, Yiu Che<sup>1,3</sup>; Cheng, Stephen Wing-Keung<sup>1,3</sup>. Endovascular management for acute aortic thrombosis presenting with critical lower limb ischemia. *Vascular Investigation and Therapy* 8(2):p 81-84, Apr–Jun 2025. | DOI: 10.4103/vit.VIT-D-25-00004
11. Semaan DB, Habib SG, Abdul-Malak OM, Siracuse JJ, Madigan MC, Salem KM, Chaer RA, Eslami MH. Aortobifemoral bypass vs covered endovascular reconstruction of aortic bifurcation. *J Vasc Surg*. 2024 Aug;80(2):459-465.e2. doi: 10.1016/j.jvs.2024.03.437. Epub 2024 Mar 31. PMID: 38565344.
12. Keegan A, Hicks CW. Surgical Decision-Making and Outcomes in Open Versus Endovascular Repair for Various Vascular Diseases. *Anesthesiol Clin*. 2022 Dec;40(4):627-644. doi: 10.1016/j.anclin.2022.08.008. PMID: 36328619; PMCID: PMC9833286.