

From Foot Trauma to Leriche Syndrome: A Case of an Ulcerated Lesion Leading to a Vascular Diagnosis

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Abstract

Case Report

Leriche syndrome, or aortoiliac occlusive disease, is a rare but serious condition caused by occlusion of the distal aorta and/or iliac arteries. It classically presents with claudication, diminished pulses, and, in severe cases, critical limb ischemia. We report the case of a 35-year-old man, a chronic smoker, who presented with an ulcerated and secondarily infected lesion on the foot following trauma occurring 4 months prior. Clinical examination revealed absence of bilateral femoral and popliteal pulses, leg cramps, weakness, and paresthesias. Imaging confirmed extensive aortoiliac occlusion, with findings consistent with Leriche syndrome. The patient underwent revascularization, which resulted in significant clinical improvement. This case highlights the importance of early recognition and prompt intervention in young patients with atypical ischemic symptoms.

Keywords: Leriche Syndrome, Aortoiliac Occlusive Disease, Trophic Disorder, Chronic Smoker.

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INTRODUCTION

Leriche syndrome, first described by René Leriche in 1940, is characterized by chronic occlusion of the infrarenal aorta or iliac arteries, leading to lower-limb ischemia. It is frequently associated with smoking and atherosclerosis. The classic symptomatic triad includes claudication, absence of femoral pulses, and erectile dysfunction, though clinical presentations can vary. Traditionally observed in elderly populations, this condition is increasingly reported in younger patients with risk factors such as smoking and dyslipidemia. Early diagnosis is essential to prevent complications such as critical limb ischemia and amputation [1, 2].

CASE PRESENTATION

A 35-year-old male chronic smoker presented with a lesion on the left foot that developed four months following a foreign body injury. The lesion subsequently

ulcerated and became secondarily infected (Figure1). He reported associated bilateral leg cramps, weakness, fatigue, paresthesia, and numbness in both lower limbs.

Clinical examination findings:

- Absence of bilateral femoral and popliteal pulses.
- Leg cramps and paresthesias.
- No history of erectile dysfunction.

Imaging Findings

Computed tomography angiography (CTA) confirmed complete occlusion of the infrarenal abdominal aorta, common iliac arteries and the left common femoral artery, with significant collateral circulation development indicative of compensatory reperfusion (Figure2), consistent with Leriche syndrome [3].



Figure 1: ulcerated and secondarily infected lesion on the foot following trauma occurring 4 months prior.

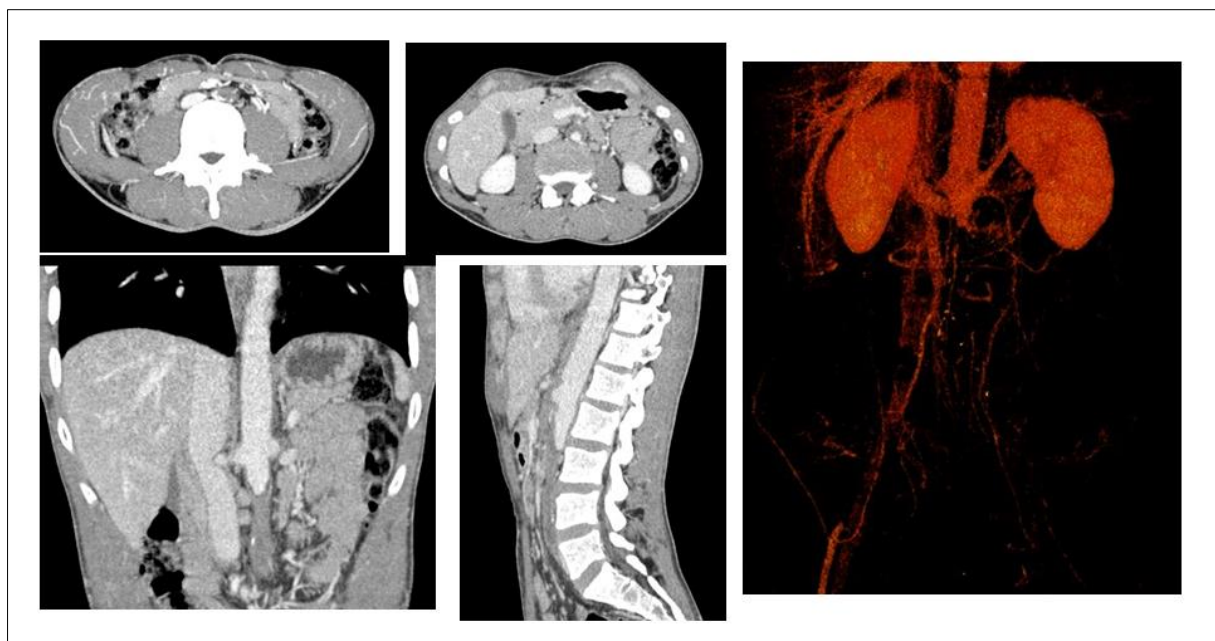


Figure 2: CT angiography abdominal reveals a complete occlusion of the infrarenal abdominal aorta, extending to the bilateral common iliac arteries and the left common femoral artery, with significant collateral circulation development

DISCUSSION

Leriche syndrome primarily results from atherosclerosis, which progressively narrows and occludes the aortoiliac segment. It may also be linked to other causes, including Takayasu's arteritis, embolic events, or thrombophilic conditions [4]. Chronic tobacco smoking is a significant risk factor due to its harmful effects on the endothelium, its induction of oxidative stress, and its role in accelerating atherogenesis [5].

Clinically, patients exhibit progressively worsening ischemic symptoms; in severe cases, the condition can escalate to critical limb ischemia, ulcers, and, if left untreated, gangrene. The absence of femoral pulses is a key diagnostic indicator. Erectile dysfunction, a component of the classic triad, is often underreported due to associated discomfort.

Diagnosis relies heavily on imaging. Computed tomography angiography (CTA) is the gold standard, as it provides detailed visualization of vascular occlusion and collateral circulation. Magnetic resonance angiography (MRA) and duplex ultrasound may also prove useful in certain cases [6].

Management involves lifestyle modifications, pharmacological treatment, and revascularization. Smoking cessation is essential, as continued smoking is associated with poorer outcomes post-revascularization [7]. Pharmacotherapy includes antiplatelet agents, statins, and, in some instances, anticoagulants to prevent further thrombotic events. Revascularization is indicated in symptomatic patients and can be performed via endovascular techniques (angioplasty and stenting) or open surgery, such as aortofemoral bypass [8, 9].

In our case, the patient underwent aortofemoral bypass surgery, which led to significant symptomatic improvement and enhanced lower limb perfusion. Early intervention is crucial to prevent limb loss and reduce disability.

CONCLUSION

Leriche syndrome should be considered in young patients with lower limb ischemia, particularly those with a history of smoking. Early recognition, thorough vascular assessment, and prompt intervention are essential to improve prognosis and prevent serious complications. This case emphasizes the importance of vigilance for atypical ischemic presentations, even among young patients.

Conflict of Interest: The authors declare no conflicts of interest.

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