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# Leriche Syndrome: Illustrative Case Report

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**Abstract** **Case Report**

Leriche syndrome, or aorto-iliac obliteration syndrome, is a particular entity of obliterative arteriopathy of the lower limbs, which consists of thrombotic occlusion of the aorto-iliac junction. We report the case of a 58-year-old patient with chronic tabagism, who presented with acute ischemia of both lower limbs. This prompted angioscanning of the lower limbs, which revealed extensive arterial thrombosis of the aorto-iliac axis.

**Keywords:** Leriche Syndrome, Angio-CT, Occlusion, Aorto-Iliac.



## INTRODUCTION

Leriche syndrome is an aortoiliac occlusive arterial disease comprising decreased peripheral pulses, claudication, and erectile dysfunction. It is a particular entity linked to thrombotic occlusion of the end of the abdominal aorta. It is misleading clinically, with a typical imaging appearance, particularly on angio-CT [1, 2]. This case report contributes to the current literature when any patient with abdominal pain and bilateral lower limb weakness, Leriche syndrome should be considered to avoid complications as it has high morbidity and mortality.

## OBSERVATION

We present a case of a 58-year-old male, a chronic smoker. The patient had an abdominal pain and he also had associated leg cramps on both sides and lower limb weakness. He has tensional asymmetry of both upper limbs. Further evaluation of the patient with computed tomography (CT) angiography showed an occlusion of the distal descending abdominal aorta below the level of renal arteries and a massive thrombus at the aortoiliac bifurcation extending to the left common iliac artery, the right external and internal iliac arteries. The femoral arteries were permeable due to the presence of collateral circulation.

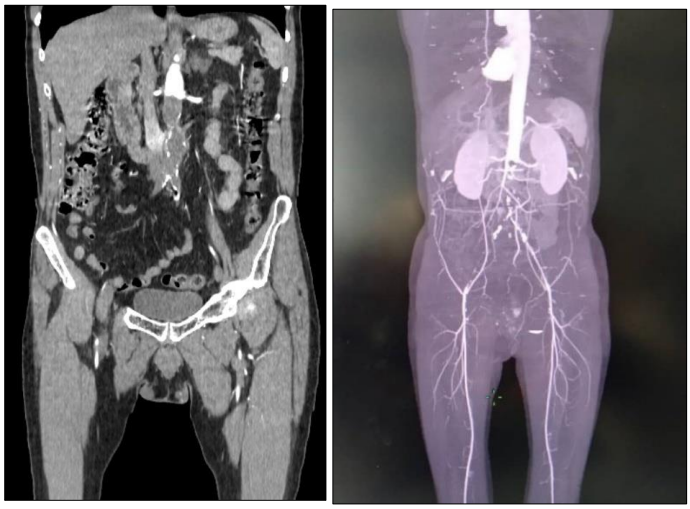

**Figure 1: angio-CT of the lower limbs with a study of the pelvic and abdominal vessels, which showed extensive total arterial occlusion from the abdominal aorta to the external iliac arteries bilateral**

## DISCUSSION

Leriche Syndrom (LS), also commonly referred to as aortoiliac occlusive disease (AIOD), is a product of atherosclerosis affecting the distal abdominal aorta, iliac arteries, and femoropopliteal vessels. LS was first described in 1914 by Robert Grahman, but it was not until later that the trio of symptoms was documented as a syndrome. This was done by Henri Leriche, a French surgeon, and physiologist, now known as the father of LS. When symptomatic, classically presents with a triad of claudication, impotence, and absence of femoral pulses. Claudication refers to cramping leg pain that is reproducible by exercise [3]. It can also be revealed by misleading pictures, simulating sciatica, for example [4], or by acute manifestations. In the arterial field, it's a case of a chronic and complete occlusion of the terminal aorta. It more often affects males, with an average age at diagnosis of around 50 years, which is compatible with our case [5].

Diagnostic imaging of Leriche syndrome and lower limb arterial occlusions in general relies first and foremost on arterial angiography, which remains the gold-standard, offering high-resolution study of the entire vascular tree of the lower limb and the possibility of performing interventional procedures. However, it remains invasive, and angioscanner of the abdominal aorta and lower limbs is an advantageous alternative due to its non-invasive nature, and the possibility of studying the entire surrounding region for other pathologies in subjects with numerous comorbidities co-morbidities [6].

CT angiography which is the most commonly used modality for the diagnostic and evaluation of patients with aortoiliac occlusive disease, allowing: a) excellent evaluation of stenotic arterial segments, b) determination if its total or partial occlusive nature, c) to assess its extent in particular to the primary iliacs, d) to determine the presence and importance of possible collateral circulation associated [7].

The characteristic lesions of Leriche syndrome are of four types: a) isolated stenoses of the primitive iliacs, b) more or less extensive lesions of the aortic bifurcation involving only the termination of the aorta and the origin of the primitive iliacs, c) extensive lesions of the abdominal aorta and iliacs, as in our case, d) complete occlusion of the sub-renal aorta [5].

Treatment of Leriche syndrome is essentially surgical, involving aorto-iliac or aorto-femoral bypass surgery, with low morbidity and mortality and excellent remote vascular patency. Transluminal kissing angioplasty (with or without thrombolysis thrombolysis) is also playing an increasingly important increasingly important as a first-line treatment, with immediate results [5].

Without treatment, the prognosis of Leriche Syndrome is poor. However, with modern medicine outcomes are good. In some cases with slow progression or onset of LS, collaterals may develop as a self compensating mechanism [8-9].

## CONCLUSION

Angio-CT is the examination of choice for the diagnosis of Leriche syndrome, as it provides a high-resolution vascular study of the aorta and arteries of the lower limbs, enabling us to determine the extent of occlusion and the origin and extent of circulation. As well as the origin and importance of collateral circulation. This is done with a view to planning treatment, which is usually surgical, in order to improve the patient's functional prognosis.

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