



## Clinical Image: Leriche Syndrome

Pei-I Zhang<sup>1</sup>, Yu-Ying Liao<sup>2,\*</sup>

<sup>1</sup>Department of Emergency Medicine, Chi Mei Medical Center, Tainan, Taiwan

<sup>2</sup>Department of Emergency Medicine, Chi Mei Medical Center, Liouying, Tainan, Taiwan

Lower extremity weakness is a neurological symptom that can be caused by several factors, including cerebrovascular accident, spinal cord disease, peripheral nerve disease, neuromuscular junction disease, muscle disease, or other metabolic conditions, such as hypoglycemia and hypokalemia. However, vascular occlusive disease may exhibit neurological symptoms. Here, we present a case of aortoiliac artery total occlusion, Leriche syndrome.

**Key words:** *Leriche syndrome, aortoiliac occlusive disease, claudication, vascular occlusive disease*

### Introduction

A aortoiliac occlusive disease, also known as Leriche syndrome, refers to complete occlusion of the aorta distal to the renal arteries, which was first described by French surgeons, Leriche and Morel, in 1948.<sup>1</sup> Chronic aortoiliac occlusive disease is more common in elderly with an advanced atherosclerotic disease and the risk factors include diabetes, hypertension, dyslipidemia, and smoking.<sup>2,3</sup>

### Case Report

A 54-year-old female presented to our emergency room for lower extremities soreness and weakness for one hour. The baseline activity of daily living (ADL) was independent and ambulatory. On review of symptoms the patient denied headache, dizziness, trauma, no fever, no chills, no nausea or vomiting. Physical exam showed temperature of 36°C, blood pressure 153/83 mmHg, heart rate 41 beats/min and a respiratory rate of 18 breaths/min. The abdomen was soft. The patient's past medical history was significant for hypertension, peripheral arterial obstructive disease status post (s/p) embolectomy. On examination,

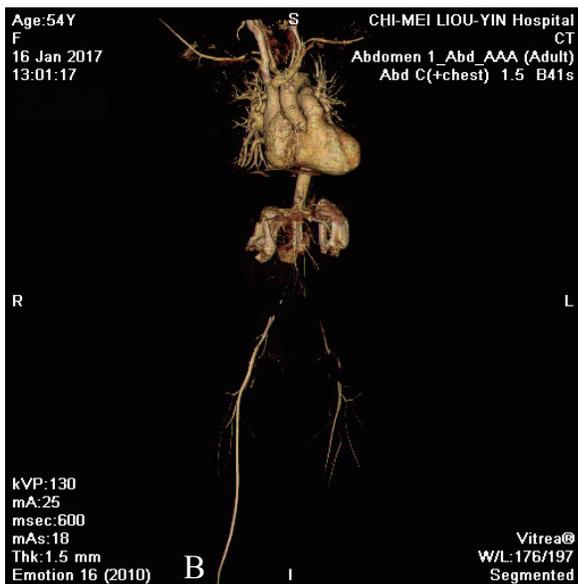
dorsalis pedis pulse was absent. The Doppler ultrasound revealed no flow over dorsalis pedis bilaterally. The computerized tomography (CT) scan disclosed occlusion of lower abdominal aorta (infrarenal level, bilateral common, external and internal iliac arteries, and left common and superficial femoral artery) (Fig. 1), thrombosis of superior mesenteric artery, bilateral renal infarction (Fig. 2). Acute aortoiliac occlusive disease was diagnosed and exploratory laparotomy was arranged, which showed diffuse ischemia and gangrene over intestine from Treitz ligament to terminal ileum, the spleen got total infarction, the liver got skipped ischemic change. Only the stomach and A-colon, T-colon, proximal D-colon were still intact in pink color. After communicating with patient's son about the poor prognosis, he agreed with "open and close." She expired next day.

### Discussion

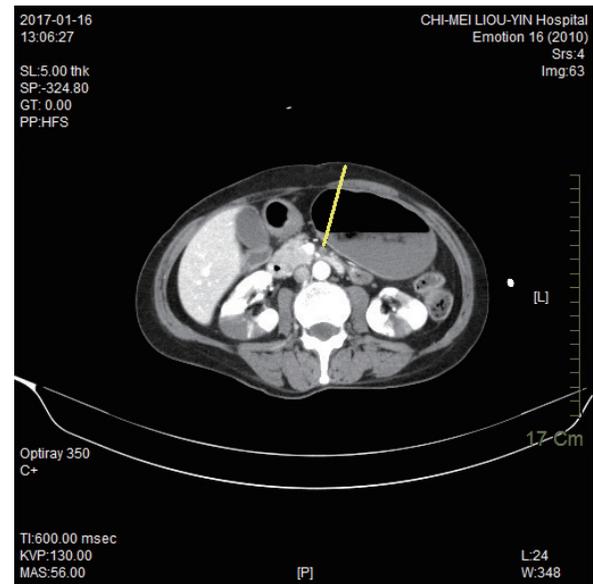
These patients got symptoms, described as a triad of impotence, claudication, and decreased femoral pulses. On the other hand, acute onset is more common in female patients, presenting 5 P's (pain, pulselessness, pallor, paresthesia, paralysis) and is

Received: October 6, 2017; Revised: December 7, 2017; Accepted: December 18, 2017.

\*Corresponding author: Yu-Ying Liao, Department of Emergency Medicine, Chi Mei Medical Center, Liouying, No. 201, Taikang, Taikang Vil., Liouying Dist., Tainan 736, Taiwan. E-mail: s871009@gmail.com



**Fig. 1.** (A) Occlusion of lower abdominal aorta. (B) computed tomography (CT) 3D reconstruction.



**Fig. 2.** Thrombosis of superior mesenteric artery.

associated with poor outcome with approximately 50% mortality. Leriche syndrome mimicking lumbar stenosis. The correct differential diagnosis of vascular occlusive disease is pivotal. Delayed diagnosis or treatment can lead to significant morbidity and mortality.

## References

1. Leriche R, Morel A. The syndrome of thrombotic obliteration of the aortic bifurcation. *Ann Surg* 1948;127:193-206.
2. Friedman SA, Holling HE, Roberts B. Etiologic factors in aortoiliac and femoropopliteal vascular disease—the Leriche syndrome. *N Engl J Med* 1964;271:1382-1385. doi:10.1056/NEJM196412312712702
3. Krankenberg H, Schlüter M, Schwencke C, et al. Endovascular reconstruction of the aortic bifurcation in patients with Leriche syndrome. *Clin Res Cardiol* 2009;98:657-664. doi:10.1007/s00392-009-0052-y