

Thrombosed persistent sciatic artery presenting with pain in the buttock

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A 62-year-old woman presented to the clinic with a one-month history of pain in the left buttock. The pain was in the gluteal region and occurred especially during prolonged uphill walking and sitting. There was no tingling or numbness in the lower extremity.

On neurologic examination, she had symmetric sensation. Her result for the straight leg-raising test was negative. Given her symptoms and results from physical examination, sciatica seemed unlikely; other possibilities included trochanteric bursitis and muscle injury. Magnetic resonance imaging (MRI) and computed tomography (CT) scans showed left persistent thrombosed sciatic artery complicated with an edematous change over the left gluteus maximus (Figure 1). Her pain was relieved after percutaneous angioplasty.

Persistent sciatic artery is an uncommon congenital vascular anomaly, with an incidence of 0.03%–0.06%.¹ Embryologically, the sciatic artery originates from the umbilical artery to reach the foot. At three months gestation, the femoral artery has developed completely, and the sciatic artery has regressed into segments as the popliteal and peroneal arteries. When the femoral artery fails to develop completely, the sciatic artery persists as a continuation of the internal iliac artery.² The persistent sciatic artery is particularly prone to aneurysmal degeneration, which may lead to distal ischemia, sciatic neuropathy or, uncommonly, rupture.³

Most cases of persistent sciatic artery are clinically silent in the early stages and detected only after patients show symptoms of vascular complication (e.g., aneurysm, embolism or rupture).² Symptoms can include a pulsating mass, pain in the buttock or acute lower leg ischemia, which may require amputation (8%).³ Imaging with multiplanar CT or MRI may show the relation among the structures around the persistent sciatic artery.

Treatment of thrombosed persistent sciatic artery depends on anatomy and clinical presentation. Stenting and coiling endovascular therapy may be used for management. Surgery, including graft interposition and extra-anatomic bypass, may be considered in select cases.¹

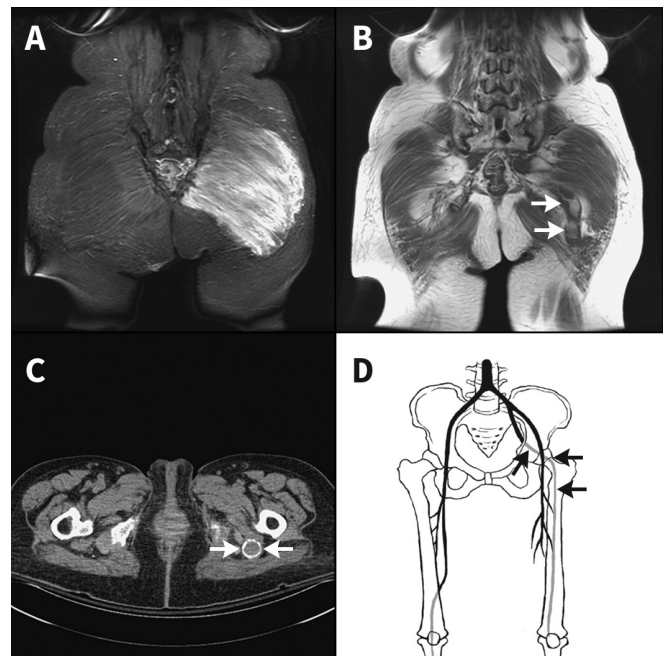


Figure 1: Imaging showing (A) a denervation edematous change over the left gluteus maximus (short T_1 -weighted inversion recovery magnetic resonance image [MRI]); the persistent sciatic artery complicated by thrombosis (arrows) ([B] T_1 -weighted MRI and [C] computed tomography scan); and (D) a drawing showing normal regression of the sciatic artery on the right side and the variant persistent sciatic artery on the left side (arrows).

References

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