

IMAGES IN INTERVENTION

Difficult Vascular Access in Urgent Coronary Artery Angiogram



A Rare Case of a Persistent Sciatic Artery

Johannes B. van Rees, MD,^a Jose M. Montero-Cabezas, MD,^a Eidrees Ghariq, MD,^b Martin J. Schalij, MD^a

A 53-year-old woman presented with ventricular fibrillation secondary to acute myocardial infarction. She was immediately transferred to the catheterization laboratory for coronary angiography. Due to weak pulsations of the right femoral artery, a fluoroscopic-guided puncture was performed, and, with difficulty, a 6-F sheath was inserted into the right femoral artery. Percutaneous coronary intervention of the anterolateral coronary artery and right coronary artery was performed with 2 drug-eluting stents. Control cine angiography of the vascular access revealed a hypoplastic right femoral artery with no distal flow beyond the sheath and a laterally located, well-developed artery continuing the internal iliac artery, being the dominant artery supplying the leg (Figure 1). After the procedure, the sheath was removed, and hemostasis was achieved by manual compression. A computed tomography scan showed the presence of a persistent right sciatic artery with an incompletely developed right femoral artery. At the puncture site, a small

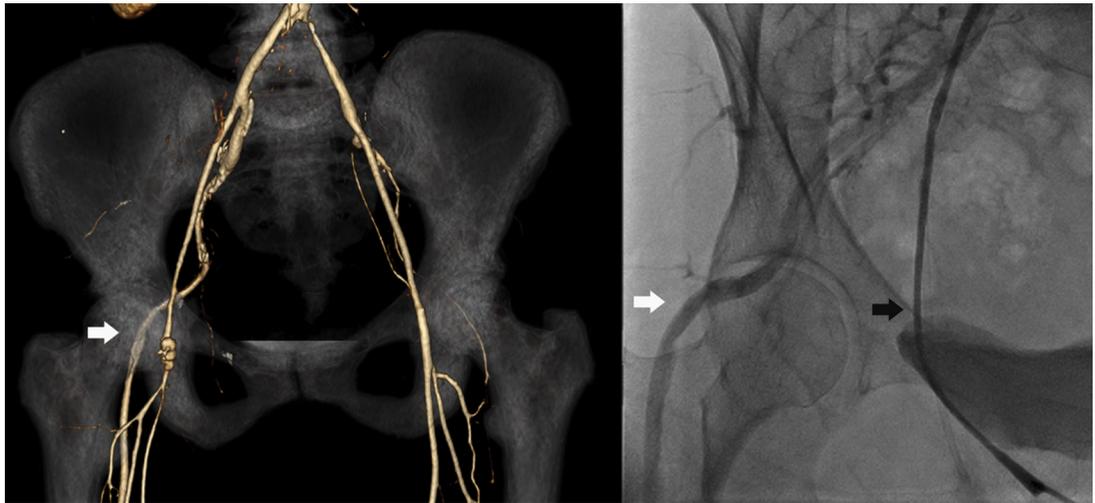
pseudoaneurysm was observed. In addition, the origin of the left iliac artery was severely stenotic (Figure 1).

The sciatic artery is a branch of the umbilical artery and develops into a common and superficial femoral artery during the early embryogenic phase (1). A persistent sciatic artery is a rare anomaly and results from lack of regression of the fetal arterial blood supply, being unilateral in 70%. Five different types have been described. In subtype 2a, as in the current case, the superficial femoral artery is present but does not reach the popliteal artery (2). Persistent sciatic artery is associated with a high incidence of complications, ranging from atherosclerosis to aneurysms (2).

ADDRESS FOR CORRESPONDENCE: Dr. Johannes B. van Rees, Department of Cardiology, Leiden University Medical Center, Albinusdreef 2, Leiden, Zuid-Holland 2300 RC, the Netherlands. E-mail: j.b.van_rees@lumc.nl

From the ^aDepartment of Cardiology, Leiden University Medical Center, Leiden, the Netherlands; and the ^bDepartment of Radiology, Leiden University Medical Center, Leiden, the Netherlands. The authors have reported that they have no relationships relevant to the contents of this paper to disclose.

Manuscript received June 7, 2018; accepted June 12, 2018.

FIGURE 1 Computed Tomography Angiography and Angiography During Catheterization

Volume-rendered computed tomography angiography (**left**) shows a right persistent sciatic artery (**white arrow**) and a right underdeveloped femoral artery with a small pseudoaneurysm. Angiography during the catheterization (**right**) shows the sheath (**black arrow**) inserted in an underdeveloped femoral artery and a right persistent sciatic artery (**white arrow**).

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KEY WORDS coronary angiogram, femoral artery, persistent sciatic artery