Ruptured Popliteal Artery Aneurysm

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Abstract

Rupture of a popliteal artery aneurysm is an uncommon event in an uncommon disease. We present the case of an 88-year-old female with a ruptured popliteal artery aneurysm that was diagnosed by multidetector computed tomography and treated by an endovascular approach.

Keywords ► popliteal artery ► aneurysm ► imaging ► aging ► endovascular

An 88-year-old female, with arterial hypertension, was admitted to our hospital for onset of acute pain and swelling behind her left knee. There was no history of trauma. Physical examination revealed a palpable and pulsatile mass in the upper popliteal fossa. Left ankle brachial index was 0.8 (normal range: 0.9–1.2). Multidetector computed tomography of left lower limb, on axial and sagittal volume rendering technique reconstruction, revealed a voluminous popliteal artery aneurysm (4.1 cm; arrowhead) with partial aneurysm sac thrombosis and signs of contained rupture (► Fig. 1A, B). She was felt to be a candidate for an urgent percutaneous endovascular approach.

Intraprocedural diagnostic digital subtraction angiography confirmed left popliteal artery aneurysm (► Fig. 2; arrowhead). A covered stent was deployed into the left popliteal artery segment with consequent aneurysm sac exclusion (► Fig. 3). The patient’s symptoms resolved after the procedure with an uneventful postoperative course.

Predischarge and follow-up ultrasound color Doppler confirmed thrombosis of the treated left popliteal aneurysm sac and stent lumen patency.

Ruptured popliteal artery aneurysm is an uncommon event in an uncommon disease.1 Multidetector computed tomography in urgent cases is the diagnostic imaging of choice to evaluate aneurysm anatomy and possible complications, as well as for planning treatment approach.1,2 In cases of ruptured popliteal artery aneurysm, as in our patient, with partial thrombosis and good run-off blood flow to the foot, an endovascular approach is indicated.2 Endovascular deployment of a covered stent to exclude the popliteal artery aneurysm is a less invasive procedure compared with a conventional surgical approach.3

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Conflict of Interest
The authors declare no conflict of interest related to this article.

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