

## CLINICAL IMAGE

## Extra-Anatomical Iliac-Popliteal Bypass for Post-Radiotherapy Occlusion of the Left Femoral Bifurcation

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### Case Report

We present a case of extra-anatomical bypass surgery after previous local resection of a sarcoma and subsequent radiotherapy of the proximal left thigh.

A 71 year old male patient suffered rest pain in his left leg. Cardiovascular risk factors were smoking (100 pack years), arterial hypertension and hypercholesterinaemia. Eight years earlier a pleomorphic high grade liposarcoma (score7) of 10x8x7 cm size was removed from the left proximal ventral thigh and subsequently treated by local radiotherapy (66 Gy). MR angiography demonstrated an occlusion of the left femoral bifurcation (Figure 1). The left ankle-brachial-index was 0.4 (right 1.06).

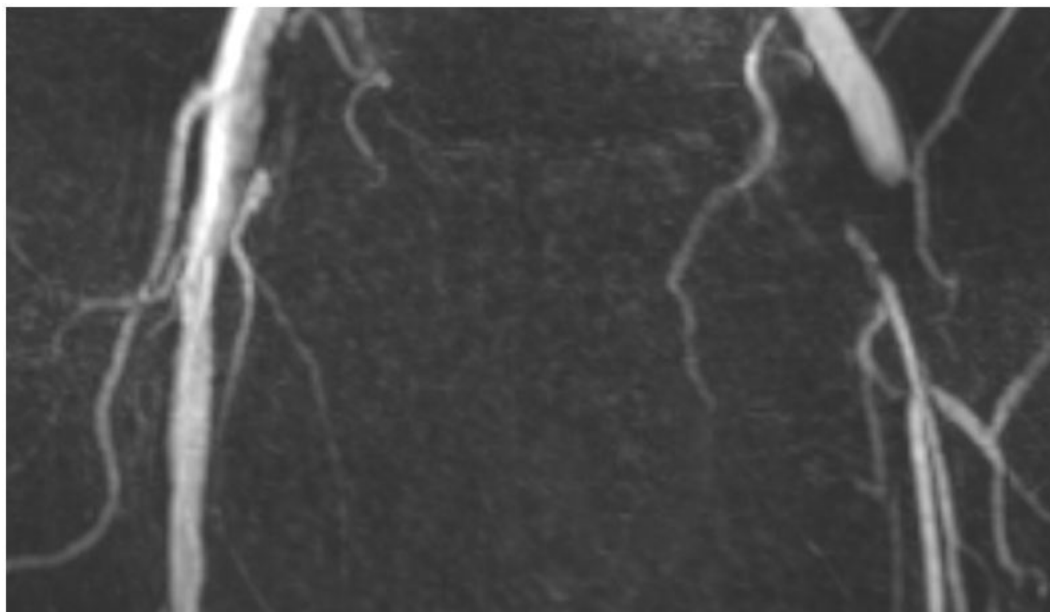


Figure 1

Femoral thrombendarterectomy was not considered an option due to radiotherapy induced scarring. A primary extra-anatomical iliac-popliteal (pars1) bypass with gore-tex (Probatin, Gore, Switzerland) was performed.

The postoperative course was uneventful and without complications. The rest pain disappeared and the free walking distance became unlimited. The left ankle-brachial-index raised to 0.91 (right 1.2). The first surveillance duplex sonography showed a patent bypass without any stenosis.

Radiotherapy may alter arteries (and veins and surrounding tissue) leading to stenosis and occlusion. Vascular surgery on arteries altered by radiotherapy may not be as successful as extra-anatomical reconstructions performed on arteries without post-radiotherapy changes.