10. EXTRA-ANATOMIC BYPASSES: A SOLUTION FOR COMPLEX CLINICAL SCENARIOS IN VASCULAR SURGERY

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Introduction. The extra-anatomic bypass is defined as a vascular reconstruction with tunneling of the graft outside the normal anatomical trajectory of the major arteries. We present three clinical cases, demonstrating the utility of extra-anatomic reconstructions in different clinical situations.

Case statement. First patient (male, 40 years old) was admitted in emergency with infected femoral artery pseudoaneurysm, caused by repeated injections of illicit drugs. Excision of the aneurysm with triple arterial ligation (external iliac, femoral and deep femoral artery) was performed and limb was revascularized via ilio-femoral bypass. The PTFE graft was tunneled through obturator foramen and non-infected tissue plans. Groin wound required serial debridement and application of negative pressure therapy. In the second case an axillary-to-femoral artery bypass with reinforced PTFE graft was performed in an 83 years old male patient with chronic limb threatening ischemia. Anatomic type of reconstruction was considered unsuitable due to the extreme aorto-iliac calcification ("porcelain aorta") and patient frailty. Third patient (male, 57 years old) was operated for giant recurrent sarcoma in the inguinal region with invasion in femoral artery, nerve and vein. Wide excision of the tumor and ligation of the femoral vessels wa

Discussion. Extra-anatomic bypasses are relatively rare performed in vascular surgery. Despite slightly inferior long-term patency and increased technical difficulty these reconstructions can be a unique solution in high-risk situations.

Conclusion. For patients with complex clinical scenarios extra-anatomic bypasses represent an alternative approach and offer acceptable results.