Treatment of Dacron Aortobifemoral Bypass Graft Aneurysm

Murat Ugurlucan¹, Didem Melis Oztas¹, Yılmaz Onal², Metin Onur Beyaz¹, Burçent Acunas², Ufuk Alpagut¹

¹ Istanbul University Istanbul Medical Faculty, Department of Cardiovascular Surgery, Istanbul, Turkey
² Istanbul Medical Faculty, Department of Radiology, Istanbul, Turkey

Objective: Graft thrombosis or infection are well known complications of Dacron grafts. Aneurysm formation is rare. In this report, we present endovascular treatment of Dacron graft aneurysm of an aortobifemoral bypass graft.

Patients and Methods: A 50-year-old male patient underwent aortobifemoral bypass procedure in 2011 with an 18x9mm, 45cm knitted polyester vascular graft. The right limb of the graft occluded in 2013 and he underwent cross-over graft to right femoral artery bypass with a saphenous vein. He presented with enlargement of the left femoral pulsatile mass. A computerized tomography angiography revealed Dacron graft dilation (29.4 mm body size, 14 mm leg size) and a 5cm in diameter left femoral aneurysm.

Results: Aortouniliac endovascular stent grafting and surgical resection of the left femoral aneurysm and an 8mm PTFE graft interposition was performed for the treatment, successfully. He has been followed event free for 6 months.

Conclusion: Dacron graft aneurysms are extremely rare. Most cases present generalized dilation. Fabrication flaws, faulty preoperative management related to methods of sterilization, bio-deterioration related to hematomas or infection, and material fatigue can be considered as reasons of the pathology. The risk of aneurysm rupture is very rare. Endovascular treatment can be considered as a relatively safe option for the treatment of the dilated Dacron grafts.