

Directional atherectomy for treatment of peripheral vascular disease

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Introduction: Peripheral artery disease is narrowing or occlusion of the arteries in the lower extremities. Typical symptom is pain in the lower extremity muscles during walking and relieved with rest. Some patients have pain at rest or even ulcerations on the legs. Therapy includes surgical revascularization, percutaneous transluminal balloon angioplasty (PTA) or stenting, and atherectomy. Atherectomy is a procedure that uses various endovascular devices for physical removal of calcified plaque by cutting or scraping. Directional atherectomy is a procedure that uses a catheter with a rotating blade to remove plaque from arteries.¹ **Aim:** To present the procedure of directional atherectomy for treatment of peripheral vascular disease.

Case report: 74-year-old patient with polyvascular disease complained of pain in the right calf after 100 meters of walking. He had no angina or dyspnea. He was admitted for PTA of right common and superficial femoral artery. An arteriography was performed following a puncture of the left femoral artery, and showed severely calcified lesions. We decided first to perform a directional atherectomy for plaque preparation, before balloon PTA. Using the crossover technique, an introducer was placed in the right external iliac artery. A Spider FX protective mesh was placed in the popliteal artery, and a HawkOne directional atherectomy of the right common and superficial femoral artery was performed. In addition, PTA with scoring and drug eluting balloon was performed. The result was excellent and the procedure went without complications.

Conclusion: Directional atherectomy is an interventional procedure used for the treatment of highly calcified atherosclerotic lesions as a preparation for percutaneous transluminal angioplasty by cutting out the calcified plaque in the artery wall.

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LITERATURE

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