

Acute occlusion of the superficial femoral artery in a very young woman

Ostra niedrożność tętnicy udowej powierzchownej u 18-letniej kobiety

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Serious rest pain of the whole left lower extremity occurred suddenly in an 18-year-old woman 10 days before admission. The patient never smoked. Since the age of 14 she suffered from diabetes mellitus type 1 and was on insulin pump therapy. Furthermore, she used combined hormonal contraception containing ethinyl oestradiol 0.03 mg and gestodene 0.075 mg for three years. The left limb was cold and pale, and only femoral pulse was palpable. Blood examinations were normal. Markers of thrombophilia were negative. Vasculitis was excluded using positron emission tomography. Oesophageal echocardiography ruled out intracardiac thrombus and patent foramen ovale. Computed tomography angiography of abdominal aorta excluded aneurysm. Admission angiography showed an occlusion at the origin of the superficial femoral artery (SFA) with its filling in Hunter's canal (Fig. 1A, B, arrows). The popliteal artery and crural arteries were patent. The occlusion of the SFA was crossed with the guidewire easily. Mechanical thrombectomy using the 6 F Rotarex catheter was completed and the patency of the SFA was restored after one passage; only a residual stenosis at the origin of the SFA persisted (Fig. 1C, arrow). However, embolisation into the distal popliteal artery and crural arteries appeared (Fig. 1D, arrows). Percutaneous aspiration thromboembolectomy was successful only partially, and therefore a thrombolytic catheter was placed in the tibioperoneal trunk. A self-expandable stent, Absolute Pro (Abbott Vascular) 6 × 60 mm, was deployed in the origin of the SFA (Fig. 1E, arrow). After 24 h of intra-arterial thrombolysis using 1 mg of recombinant tissue plasminogen activator per hour, the patency of the popliteal and crural arteries was achieved (Fig. 1F). Hormonal contraception was discontinued definitely on admission. The patient was discharged without any symptoms. Five months later, left calf claudication occurred. The walking distance shortened from 500 to 100 m progressively. A new angiography was performed 10 months after the first intervention. Significant restenosis of the SFA above the stent and in-stent appeared (Fig. 2A, arrows). Percutaneous transluminal angioplasty (PTA) using a paclitaxel eluting balloon was performed (Fig. 2B, arrow). During the PTA, strong pain occurred in the treated limb, which was due to severe vasospasms of the SFA lasting 10 min and requiring an administration of isosorbide dinitrate intra-arterially. After the PTA, a dissection of the SFA was apparent (Fig. 2C). However, it did not prevent the fast flow of the contrast medium. Because of a tendency towards vasospasms percutaneous radiofrequency lumbar sympathectomy (L3) on the left side was performed. Two years after the manifestation of peripheral arterial disease, the patient remains free of symptoms. Ultrasonography revealed no significant restenosis or dissection of the examined arteries. An acute, verisimilar thrombotic occlusion of the SFA in a young patient is reported. We assume that it was caused by an additive procoagulable effect of diabetes mellitus and oral contraception. Caution in prescribing hormonal contraceptives should be recommended, especially when other conditions enhancing coagulability are present.

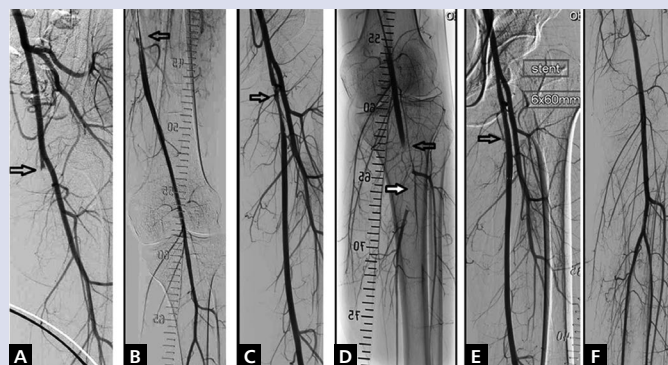


Figure 1. A–F. Admission angiography

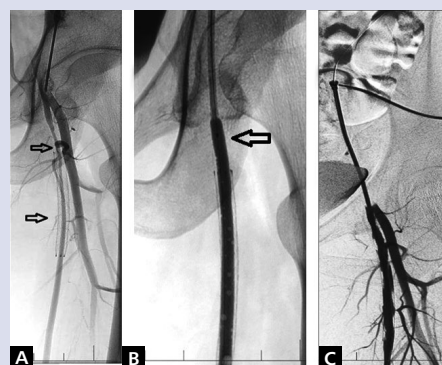


Figure 2. A–C. Angiography 10 months later

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