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Lower Extremity Arterial Lysis After Acute on Chronic Thrombosis

Patient History

A 54-year-old male presented to the emergency department with worsening of left calf claudication, and now with rest pain:

- History of hypertension, COPD, morbid obesity, atrial fibrillation and end-stage ischemic cardiomyopathy status post 3 LVAD (HeartMate XV) devices, the last being in December of 2007
- The right popliteal was determined to have chronic thrombus that could not be crossed with a wire after multiple attempts
- ABI 0.54 on the right, 0.37 on the left
- Duplex showed no flow in the left common femoral artery or distally
- Arteriogram via the right femoral artery revealed left common, profunda, and superficial femoral as well as distal tibial occlusion due to emboli
- Evidence of chronic thrombosis to the right lower extremity with less severe occlusive disease than the left

Treatment

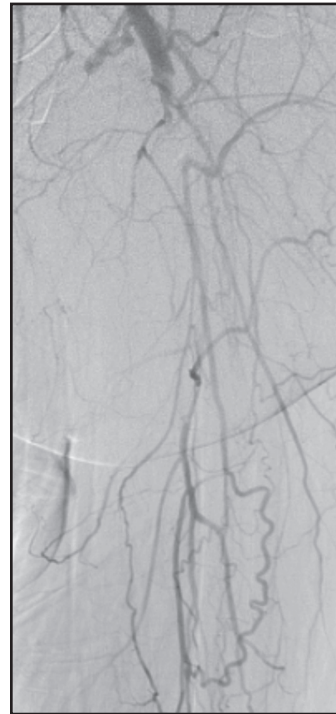
EKOS 50 cm treatment zone device was placed from the left femoral down to the knee joint in order to lyse the more recent acute thrombus

- EKOS ultrasound-accelerated thrombolysis with 0.5 U/hr reteplase, and 500 U/hr heparin

Results

Patient brought back 12 hours after EKOS was placed:

- Left SFA was patent except for some minimal non-flow limiting thrombus in the proximal SFA and thrombus in the profunda
- Decision made not to reposition device and continue lysis due to patient's difficulties lying flat on the angio table and concomitant heart failure
- Brief attempt was made using Angiojet Possis of the proximal SFA without any change
- Post-lytic ABI was significantly improved at .77 and he was symptomatically greatly improved



Left SFA pre-lysis



Left popliteal pre-lysis



Left SFA post-lysis



Left anterior tibial post lysis



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