Treatment of peripheral vascular disease is not straightforward, with many options available to the radiologist. All treatment forms have their advantages and limitations in terms of success and outcomes. We present a case report for a patient treated with the Straub Mechanical Thrombectomy System – a ‘one for many’ device which is capable of rapidly removing occlusive material from the artery, and capable of doing this without regard to the age, type or genesis of the thrombus.
A Case Report

The patient was an 81 year old male, presenting with acute short distance claudication in the left leg. The initial CT angiogram demonstrated thrombo-embolus at the common femoral bifurcation and a second thrombo-embolus in the tibio-peroneal trunk. Based on this information a right side femoral access point was chosen, with a contralateral approach to the occlusion.

Figure 1:
Pre-procedure angiogram showing a distal femoral occlusion, with further stenosis in the tibial peroneal trunk.

An initial angiogram showed that the proximal thrombo-embolus had moved downstream and had lodged in the mid SFA. The lower thrombo-embolus now also involved the distal popliteal artery.

Figure 2:
Tortuosity in the iliac vessels due to infra-renal aortic aneurysm.

In addition, the anatomy in the iliacs was extremely tortuous due to an infra-renal aneurysm in the abdominal aorta. A 10F Arrow sheath was passed over the bifurcation with some difficulty, and after exchanging the guidewire for the 0.018" wire supplied with the Rotarex®S set, the Rotarex®S was advanced also with difficulty. The sheath was pulled back in line with the device head, and the two were advanced together.

The start position for the device is two head lengths from the occlusion, and when this was achieved, and the Rotarex®S was started, the device was advanced in a forward movement one head length into the occlusion, and brought back in to the blood flow to ensure there was adequate aspiration of the catheter.

Figure 3:
Post procedure angiogram. No PTA or stent placement was necessary.

This was repeated until the occlusion was cleared. The device was kept running while the catheter was slowly brought back to the original start position, and then a second pass was made. An angiogram revealed that the occlusion had been cleared and normal blood flow had been maintained to this section of the vessel. The result was excellent, with no requirement for secondary treatment with stents or PTA.

We did not have a Rotarex®S 6F catheter in stock, so an antegrade puncture was made in the left common femoral artery, and an ipsilateral approach was taken to aspirate the fresh clot in the tibial trunk using a 6F guiding catheter and a 50ml Luer lock syringe. This was successfully cleared.