Successful Endovascular Treatment with Rotarex®S Endovascular System in Patients with Acute Thromboembolic Ischemia of the Lower Limb Including the Crural Arteries: A Mini-series.

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Background:
Acute thrombotic lower limb ischemia represents a medical emergency that requires prompt diagnosis and treatment in order to preserve the viability of the affected limb. With recent technical developments, percutaneous mechanical debulking using the Straub Rotarex®S system represents an alternative to surgical embolectomy techniques. However, the 6F Rotarex®S catheter system is currently limited to vessels of ≥3mm diameter, caution is needed, when applying the system in below-the-knee arteries.

Endovascular Procedures:
Herein, we present a mini-series of 4 patients with acute lower limb ischemia involving thromboembolic occlusion of the proximal crural vessels, who were all successfully treated using percutaneous mechanical debulking after failed catheter-guided aspiration (Table). In all 4 cases, the 6F Rotarex®S catheter was used in proximal and partially in the median part of relatively big ~3.0 to 3.5mm diameter crural arteries with a very good angiographic success and without requiring subsequent local thrombolysis to treat residual thrombus formation. We did not see vascular complications in terms of dissection or vessel perforation. Some representative images can be appreciated below.

![Image A](imageA.png)
![Image B](imageB.png)
![Image C](imageC.png)
![Image D](imageD.png)

Thrombotic occlusion of the left CFA (a), which was treated with 6F Rotarex®S thrombectomy and followed by local thrombolysis. The next day after lysis new occlusion of the popliteal artery was noted, possibly due to embolization (b) so that 6F Rotarex®S thrombectomy was repeated in the popliteal and in the anterior tibial artery (c). This resulted in restoration of flow (d).

![Image A](imageA.png)
![Image B](imageB.png)
![Image C](imageC.png)
![Image D](imageD.png)

Thrombus formation in the CFA can be appreciated in (a). Repeated 6F Rotarex®S thrombectomy was performed, resulting in thrombus resolution and good angiographic reflow (b). However, DSA revealed further thrombus formation in the popliteal and in the anterior tibial artery (c). Subsequent treatment in the proximal and mid anterior tibial artery resulted in restoration of flow and to prompt resolution of ischemic symptoms.

![Image A](imageA.png)
![Image B](imageB.png)
![Image C](imageC.png)
![Image D](imageD.png)

Thrombotic occlusion of the right popliteal artery (blue arrows in a). 6F Rotarex®S thrombectomy was performed (b). However, remaining thrombus formation was detected in the tibiofibular trunk and in the posterior tibial artery (blow and yellow arrows, respectively in c). Repeated thrombectomy was performed in the proximal and mid posterior tibial artery, leading to full flow restoration (d).

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