Endovascular Treatment of an Iatrogenic Rupture of the External Iliac Artery following Rotational Thrombectomy

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Introduction
Rotational thrombectomy is useful in the treatment of infra-aortic acute and subacute arterial thrombotic occlusions. However, it may be associated with certain complications. We report a case in which a patient treated using covered stents for iatrogenic rupture of the external iliac artery following rotational thrombectomy.

Case Presentation
A 78-years-old female patient presented with severe claudication (Rutherford III) of the right lower limb for two months. She had a past medical history of arterial hypertension and lumboischialgia. Duplex ultrasound demonstrated an occlusion of the right external iliac artery. Angiography was carried out using a retrograde left transfemoral approach followed by a crossover approach. Using a 6F sheath the occlusion was passed with a 0.035 inch hydrophilic wire splinted with a 4F catheter and then switched to a 0.018 inch wire. Thereafter, passage of the occlusion with a 6F Rotarex device. The patient complained of right lower abdominal pain. An angiogram showed a rupture of the right external iliac artery. Initial prolonged balloon inflation did not seal the perforation. Accordingly, two covered stents (Lifestream 6x37x80 und Lifestream 7x26x80) were deployed which successfully ceased the bleeding followed by deployment of two self-expanding stents in the right external iliac artery.

Results
Post-intervention CT angiogram excluded active bleeding. With a short-term use of analgesics symptoms settled down. After 7 days of hospitalization, the patient was discharged with an ambulatory follow-up.

Discussion
Iatrogenic rupture of arterial wall using rotational thrombectomy could be safely treated endovascularly using covered stents.