

1104 **A Case of Vessel Rupture during Endovascular Treatment of an Iliac Artery Occlusive Lesion with Severe Eccentric Calcification**

Motoaki Kai¹

Kazuki Tobita², Hikaru Tanemura¹, Shun Sawada¹, Eiji Koyama¹, Hirokazu Miyashita¹, Shigeru Saito¹

1 Cardiology, Shonan Kamakura General Hospital, Japan

2 Cardiology, Ikegami General Hospital, Japan

A woman in her 70s was referred for intermittent claudication. Angiography showed occlusion of the left external iliac artery (EIA) and a heavily calcified occlusive lesion extending from the right common iliac artery (CIA) into the EIA. Endovascular therapy (EVT) for the left iliac lesion was planned via a right radial approach.

Using a 5Fr Parent Select as guiding catheter, antegrade crossing with a 0.018-inch guidewire failed due to severe distal EIA calcification. IVUS showed subintimal wire passage at the calcified segment; after intraluminal dilation of the CIA to proximal EIA, a retrograde left femoral approach was added. The wire crossed retrogradely, and rendezvous with the antegrade microcatheter established a pull-through wire. IVUS confirmed intraplaque passage across a lesion with continuous 180-270° eccentric severe calcification. A VIABAHN 7.0/50mm stent graft was deployed at the most eccentrically calcified site, followed by an overlapping bare nitinol stent (9.0/80mm) from the CIA to EIA. Post-dilation with a 6mm balloon caused sudden hypotension, and angiography revealed vessel rupture at the stent overlap. Antegrade balloon tamponade was performed immediately, with additional retrograde deployment of a VIABAHN 8.0/50mm. Dilation with a SHIDEN HP 6.0/40mm balloon at 10 atm achieved hemostasis and good flow on bidirectional angiography. Two units of packed red cells were transfused postoperatively; blood pressure remained stable with no hemoglobin drop, and the patient was discharged ambulatory on postoperative day 3.

A stent graft was chosen at the eccentric calcification site due to anticipated poor dilation, and a self-expandable device was selected over a balloon-expandable one for better vessel conformability, but undersizing led to rupture. Vascular injury during iliac EVT is a potentially fatal complication, underscoring the need to anticipate this risk and be prepared for rapid management. We report the procedural details of this case, with discussion.