

Clinical-Medical Image

Management of Iliac Artery Rupture in Endovascular Treatment Based on the Endoleak-type System

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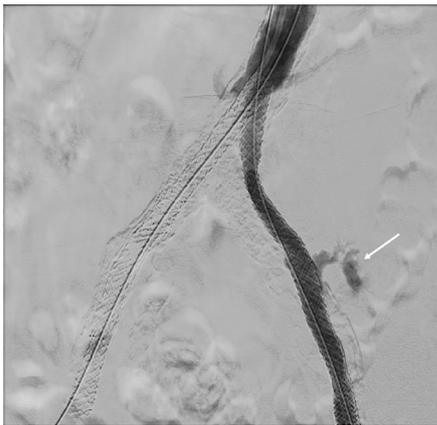


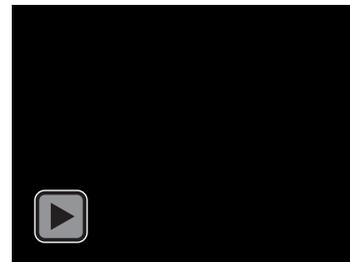
Figure 1: Angiography revealed a rupture from lack of overlap similar to type III endoleak in endovascular repair.



Figure 2: Deployment revealed a rupture from the distal graft attachment site similar to type Ib endoleak in endovascular repair.



Video 1:



Video 2:

Clinical-medical Image

A 72-year-old man with hypertension presented with intermittent claudication of the bilateral lower limbs. His right and left ankle-brachial indices (ABI) were 0.42 and 0.39, respectively. Computed tomographic angiography revealed total occlusion of the infrarenal aorta and chronic total occlusion of the bilateral iliac artery with severe calcification. Following confirmatory aortography via the bilateral common femoral artery and the left radial artery, we crossed the occlusion from the infrarenal aorta to the bilateral iliac artery using the rendezvous technique. Intravascular ultrasound could not reveal the wire passage due to severe calcification. After deploying two VBX stent-grafts (7 × 79 mm, 7 × 79 mm, W. L. Gore & Associates) in the left iliac artery, angiography revealed a rupture from lack of overlap similar to type III endoleak in endovascular repair (Figure 1) (Video 1). Angiography performed immediately following additional stent-graft (VBX, 7 × 59 mm) deployment revealed a rupture from the distal graft attachment site similar to type Ib endoleak in endovascular repair (Figure 2) (Video 2). Additional stent-graft (VBX, 8 × 39 mm) deployment for the distal site successfully covered the ruptured iliac artery, resulting in complete haemostasis. The patient's circulation was stable. The patient has recovered and was doing well 6 months postoperatively. His most recent right and left ABIs were 0.92 and 0.90, respectively. Previous studies have demonstrated that endovascular revascularization of chronic aortic occlusion is safe and associated with acceptable early and medium-term patency rates [1]. According to another report, an endovascular procedure can provide a fast, efficient, and less aggressive treatment of rupture of the EIA during angioplasty [2]. In contrast, there have been few reports of rupture

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detected via angiography after deploying stent-grafts in the iliac artery. However, this outcome is an impressive and educational demonstration of the need for management of iliac artery rupture in endovascular treatment for occlusive arterial disease based on the endoleak-type system.

Keywords: Iliac artery rupture; Angiography

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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