

2013 Unexpected occlusion of an internal iliac artery causing acute limb ischemia

A 76-year-old man with diabetes mellitus and hypertension admitted to our hospital due to intractable skin ulcers in the left toes. His bilateral ankle-brachial index was immeasurable, and his skin perfusion pressure on the dorsal and planter sides of the left foot was 58 mmHg and 22 mmHg, respectively. Pre-procedural computed tomographic angiography revealed total occlusion in the bilateral orifice external iliac arteries (EIAs) and left superficial femoral artery (SFA). Firstly, we tried to endovascular treatment for the left EIA using a bidirectional approach via the left brachial artery and left common femoral artery (CFA), which were 5-Fr and 7-Fr systems, respectively. After retrograde puncture using a stiff tail of a 0.035-inch guide wire, a conventional 0.014-inch guide wire easily crossed the target lesion. An intravascular ultrasound catheter could cross the lesion and demonstrated low-attenuation plaque with large quantity of thrombi. For preventing distal embolism, we dilated the lesion using a 6.0 mm balloon with simultaneously 7-Fr sheath aspiration. However, he complained of a pain in the left toes after dilatation. Unexpectedly, angiography revealed acute total occlusion in the left internal iliac artery (IIA), which had a jeopardized collateral artery to the left profunda femoris and distal SFA. Deploying a stent in the left iliac artery across the IIA was necessary for revascularization, therefore we tried to rescue the IIA. Given total occlusion in the orifice IIA without a stump, we unfortunately failed to cross this occlusion despite using high load-tip wire with a double lumen catheter and gave up to rescue the IIA. Finally, we deployed an 8-mm self-expanding stent in the left iliac artery across the IIA, and fortunately succeeded in relieving his pain. Final angiography confirmed acceptable flow to below-knee, but periprocedural creatine kinase release was accompanied. We should have recognized the IIA to be the jeopardized collateral artery and protected it.