

1082 **Endovascular Treatment of Chronic Upper Limb Ischemia Due to Brachial Artery Occlusion Associated
With a Heavily Calcified Aneurysm at the Arteriovenous Access Anastomosis**

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A 68-year-old man receiving maintenance hemodialysis for diabetic nephropathy was referred to our hospital in May of year X—1 for treatment of digital necrosis of the left hand. Contrast-enhanced computed tomography revealed occlusion of the left brachial artery at the arteriovenous access anastomosis, with aneurysmal dilatation and severe calcification. Because the patient declined surgical treatment, endovascular therapy was performed. Balloon angioplasty restored perfusion, and the wound healed. However, digital necrosis recurred in October of year X. Angiography demonstrated reocclusion of the brachial artery within the anastomotic aneurysm, and repeat endovascular therapy was undertaken. An antegrade guidewire introduced from the right femoral artery advanced only into the aneurysm; therefore, a retrograde approach via distal radial artery puncture was added. The antegrade and retrograde guidewires met within the aneurysm. After balloon dilatation within the aneurysm using a 4.0-mm balloon from the antegrade direction, the retrograde guidewire advanced proximally along the aneurysmal wall. Following guidewire externalization using a snare, a 5.0-mm stent graft (VIABAHN) was implanted to reduce the risks of distal embolization from intra-aneurysmal thrombus, recoil due to severe calcification, and vessel rupture. A 5.5-mm interwoven nitinol stent was subsequently deployed inside the stent graft for reinforcement. Final angiography confirmed satisfactory restoration of blood flow, and the wound healed within 2 months. The combined use of a stent graft and an interwoven nitinol stent may represent a useful endovascular option for brachial artery occlusion associated with a heavily calcified arteriovenous access anastomotic aneurysm when surgical treatment is not feasible or is declined.