Case Report: Chocolate® PTA Balloon for revascularization of a chronically occluded popliteal artery as a standalone therapy

A case-based discussion of the use of Chocolate® PTA Balloon in challenging anatomy.

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On October 16, 2012, a 62 year old male with known coronary disease and PAD presented with CLI of the left lower extremity. The patient was admitted for an attempt to treat a CTO of his left popliteal artery. The case was further complicated by the presence of a knee metal prosthesis limiting the fluoroscopy imaging at the popliteal area.

Ipsilateral antegrade left common femoral artery access was obtained. Angiography demonstrated a chronic total occlusion of the left popliteal artery that reconstituted below the knee at the level of the distal popliteal artery with good run-off of the distal vessels. Several initial attempts at wire engagement and crossing of the lesion were unsuccessful due to the multiple collaterals arising from the occlusion.

A decision was made to recanalize the CTO using a retrograde approach, and provisional stenting of the popliteal artery. The anterior tibial artery was punctured using a micropuncture kit. After multiple attempts using multiple views, which produced multiple subintimal dissection tracts, the CTO at the popliteal artery was successfully crossed from distal to proximal using a 0.014” guidewire. The wire was then snared and pulled out through the femoral artery sheath.

PTA of the popliteal artery was performed with a Chocolate® 4.0x80mm balloon in 2 sequential inflations: First inflation to nominal pressure (9 atm) for 60 sec and second inflation to 12 atm for another 60 sec. This sequence was repeated at the distal part of the popliteal artery (Fig. 2).

The final angiographic result demonstrated well opened popliteal artery without any dissection (Fig. 3). No stent was required or deployed.

This case nicely demonstrates the potential advantage of the Chocolate PTA balloon catheter to achieve optimal “stent like” results even in complex CTO lesions. This advantage is particularly important in treating a “no-stenting” zone as in this case - the popliteal artery.

“This is very impressive. No other device should be used after such optimal result”.

– Dr. William Gray