Directional Atherectomy With Antirestenotic Therapy vs Drug-Coated Balloon Angioplasty Alone for Isolated Popliteal Artery Lesions

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**Aim:** To report a single-center study comparing drug-coated balloon (DCB) angioplasty vs directional atherectomy with antirestenotic therapy (DAART) for isolated lesions of the popliteal artery

**Patients:**
- October 2009 - December 2015
- 31 Patients DCB/41 DAART
- Vessel calcification (29% vs 29%)
- Mean lesion length (47 vs 42 mm)

**End Points:**
- Technical Success rate (TSR)
- Primary Patency rate (PPR)
- Secondary Patency rate (SPR)
- Target lesion revascularization (TLR)

**Results:**
- TSR: 84% vs 93%, P=.24
- PPR: 65% vs 82%, P=0.02
- SPR: 96% vs 96% -------
- Freedom from TLR: 82% vs 94%, P=.07
- Bailout Stenting: 16% vs 5%, P=.13
- Aneurysmatic Degeneration: 0% vs 7%, P=.25

**Conclusions:** DAART was associated with a higher PPR. Both treatment options showed excellent 12-month SPR. Aneurysmal degeneration of the popliteal artery and increased bailout stenting compromise the outcomes of DAART and DCB, respectively