NOVEL TECHNIQUE OF DUPLEX ULTRASOUND GUIDED CANNULATION OF COMPLETE FLUSH OCCLUSION OF SFA AND BYPASS GRAFT

i2 Poster Contributions
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Background: A small subset of patients (pts) with chronic total occlusion (CTO) of the superficial femoral artery (SFA) are “flush” occluded that shows no residual ostial “stumps” on angiogram. This population poses a particular predicament for percutaneous endovascular intervention (PEI) due to inability to identify and cannulate a “flush” occluded vessel. We evaluated the utility of arterial duplex ultrasound in guiding wire/device access and catheter placement into totally occluded SFA or bypass grafts that show no residual “stumps” on angiography.

Methods: From January 2007 to August 2009, 394 consecutive pts with CTO of the SFA underwent PEI for symptomatic peripheral arterial disease. From this cohort, 18 pts presented with a “flush” occluded SFA or femoral to distal artery bypass graft.

Results: The mean age was 70.6 years, with a high rate of co-morbidities, including coronary artery disease (57.1%), diabetes mellitus (35.7%) and chronic renal failure (28.6%). All “flush” occluded vessels were successfully recanalized without any procedural complications. The real-time ultrasound imaging provided in-depth anatomical information while cannulating the “flush” occluded vessel. It also ensured that the guidewire stays intraluminal and in the case of “in-situ” saphenous vein grafts, averted the wire from tracking-off into side branches.

Conclusions: Duplex ultrasound is a useful adjunctive imaging modality for PEI of CTOs to guide the safe recanalization of “flush” occluded SFA or bypass grafts.