



AV access

A case review from the Ross Pilot Study

Pilot study* of IVUS imaging during endovascular interventions of failing hemodialysis access grafts

PI: John R. Ross, MD

The Dialysis Access Institute at the Regional Medical Center
Orangeburg, South Carolina

Study design:

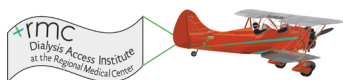
Prospective, randomized, unblinded, single-center study comparing intravascular ultrasound (IVUS) to traditional digital subtraction angiography (DSA) in patients with failing hemodialysis access grafts. 100 patients were enrolled.

Patient history:

The patient is a 35 year-old African American woman with a history of hypertension and congestive heart failure who was hemodialysis dependent for approximately 2.4 years.

She was referred for evaluation of slow flow and prolonged cannulation site bleeding of a right upper extremity HeRO graft during hemodialysis 2 days prior to the index procedure.

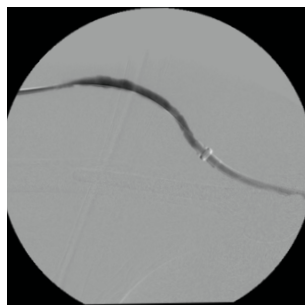
*ClinicalTrials.gov: NCT01929369



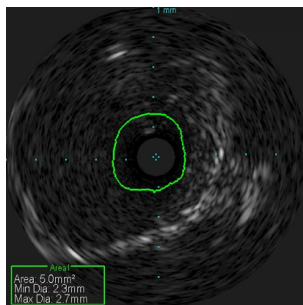
Pre-treatment:

Tightest Stenosis by IVUS = 5.0 mm²

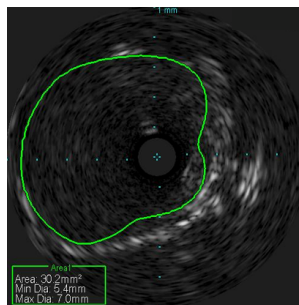
Reference Area by IVUS = 30.2 mm²



DSA was unremarkable



IVUS: intra-graft lesion (pre-PTA)



IVUS: intra-graft reference (pre-PTA)

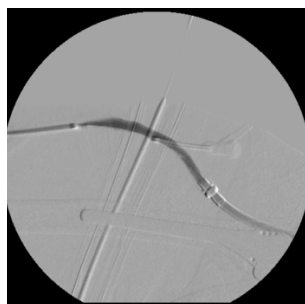
Intervention: 7 X 80 mm (sized per IVUS)

Post-treatment:

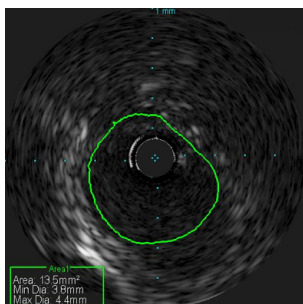
Tightest Stenosis by IVUS = 13.5 mm²

Reference Area by IVUS = 27.1 mm²

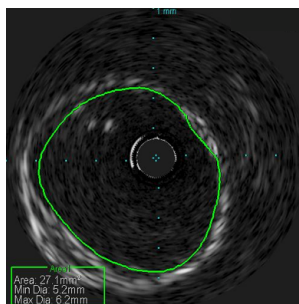
Luminal Gain by IVUS = 8.5 mm² or 70%



DSA was unremarkable



IVUS: intra-graft lesion (post-PTA)



IVUS: intra-graft reference (post-PTA)

Clinical findings:

Stenosis without evidence of thrombosis. IVUS modified treatment because the target lesion was not seen angiographically. Lesion detection and size measurements led to intra-graft balloon angioplasty.

For more information, please visit www.volcanocorp.com/venous.

The opinions and clinical experiences presented herein are for informational purposes only. The results from this case study may not be predictive for all patients. Individual results may vary depending on a variety of patient-specific attributes and related factors.