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Phoenix with IVUS Case Review

Case Performed by

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The Phoenix atherectomy system is intended for use in atherectomy of the peripheral vasculature.
The system is not intended for use in the coronary, carotid, iliac or renal vasculature.

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Patient Presentation

65 year-old female referred due to life-style limiting claudication with a history of:

- Diabetes
- Hypertension
- Renal Insufficiency

Referred due to life-style limiting claudication and ulceration on her left foot

Had resting pain

Underwent non-invasive peripheral arterial assessment that demonstrated a stenosis in the pedal plantar region

600-0100.188/LB

Image is a model, not an actual patient

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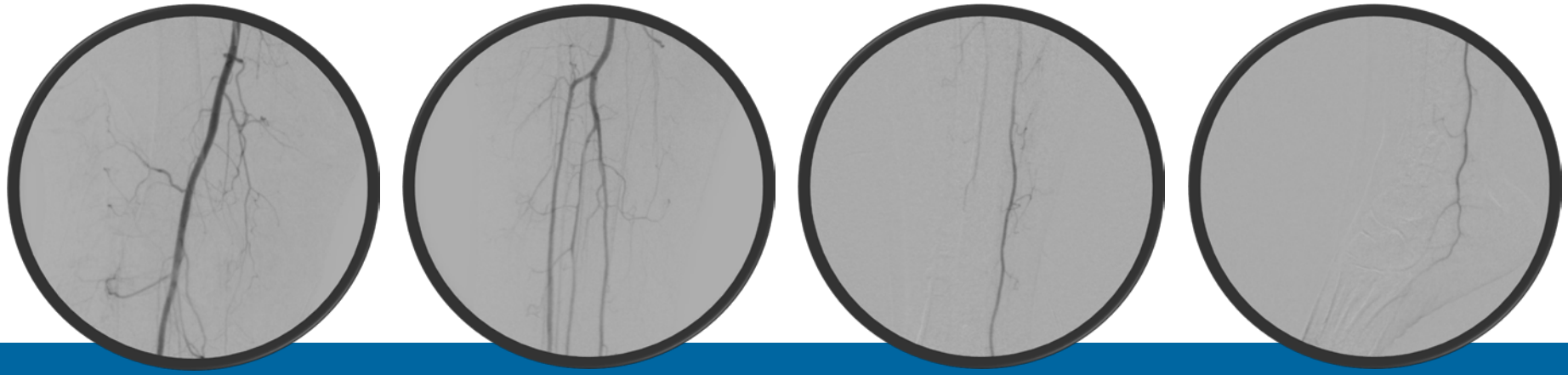
Initial Angiogram



- Initial angiogram demonstrated patent SFA with three vessel runoff and a CTO in the Pedal Plantar Loop.
- Based off the angiogram and the patient's clinical presentation what should we do?
- What is the size of the vessel and how long is the lesion?
- What type of disease does the patient have? Is it highly calcified? If there is calcium where is it located in the vessel? Is the calcium superficial or deep?
- My initial strategy was to cross the lesion with a wire and perform a balloon angioplasty with a 2.0 x 100mm balloon.

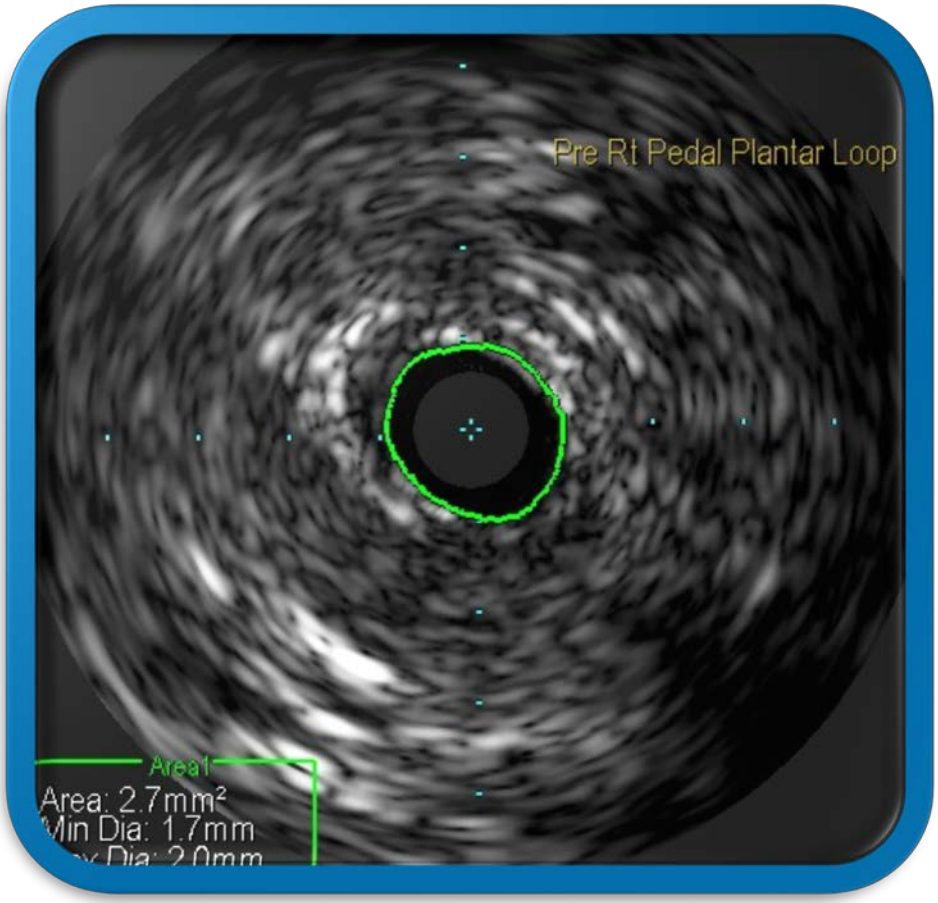
Initial IVUS Assessment

IVUS identified:

- The length of plaque and vessel diameter of 2.5mm thus aiding the physician in determining the appropriate sized and length of balloon to use.

- The type of disease present and size of vessel was suitable for treatment with the Phoenix 1.8mm atherectomy device.

- Beginning lumen area before treatment is 2.7mm^2.



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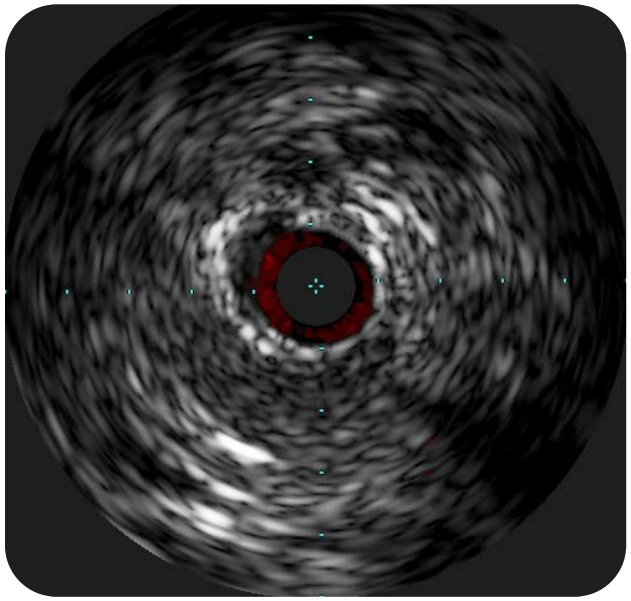
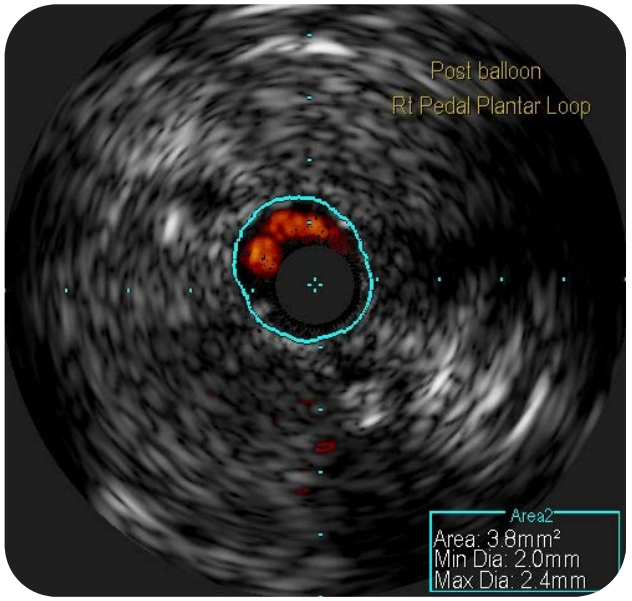
1.8mm Atherectomy Device and Angioplasty

Atherectomy performed by Phoenix 1.8mm x 149cm



IVUS immediately post atherectomy and angioplasty with 2.5 x 150mm Sterling balloon



- IVUS performed directly after atherectomy and again post angioplasty to determine adequacy of therapy due to patient having renal insufficiency issues.
- IVUS images showed no adventitial injury or flow-limiting dissections.

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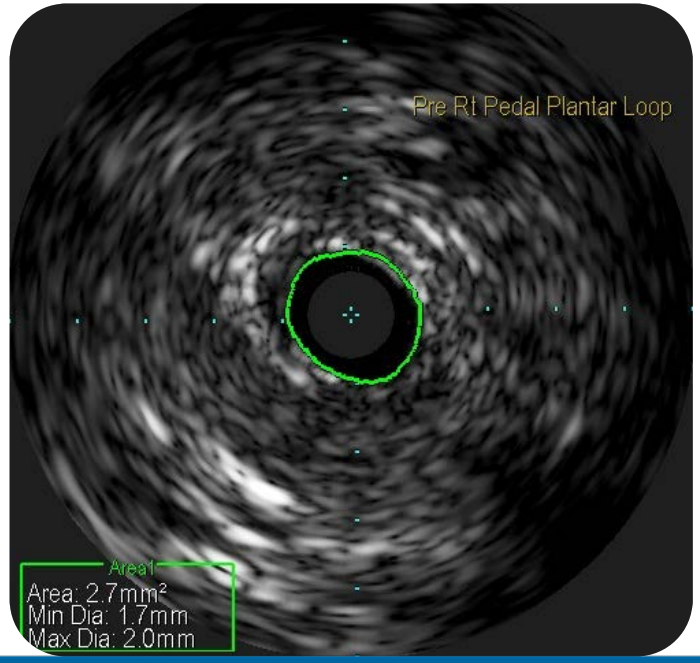
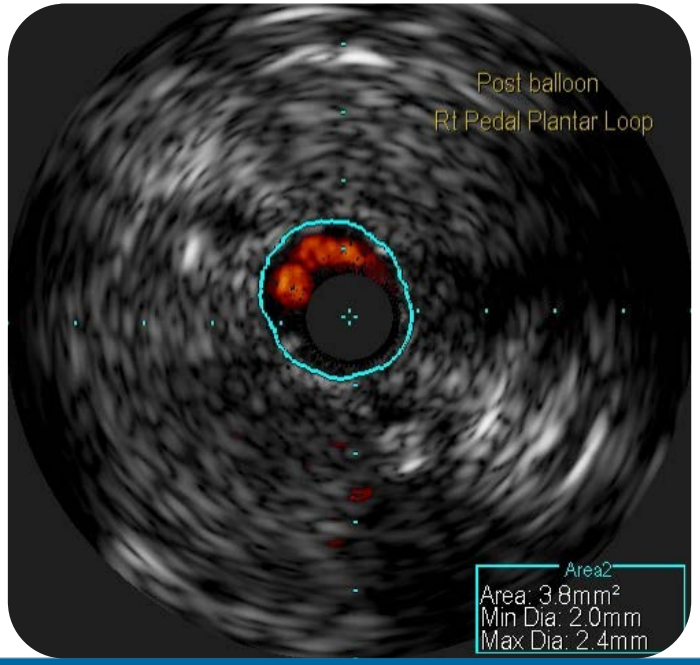
Pre and Post Therapy IVUS

Pre-Therapy IVUS



Final Post-Therapy IVUS



- 71% luminal gain post atherectomy and angioplasty.

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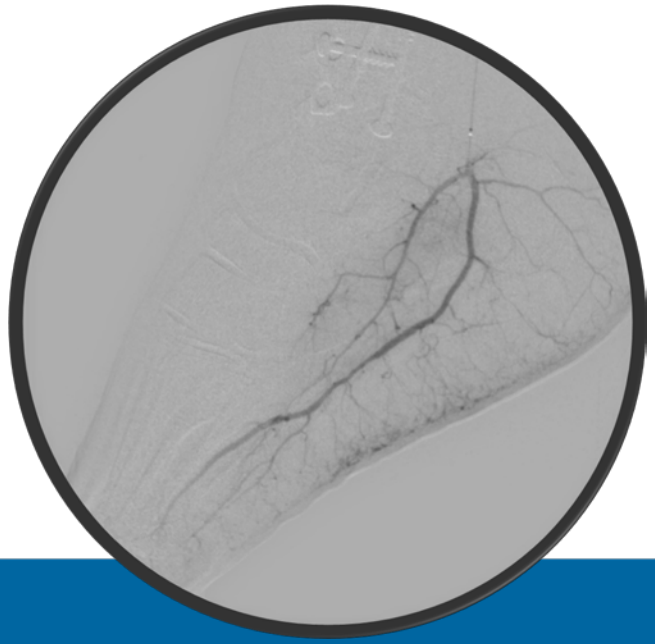
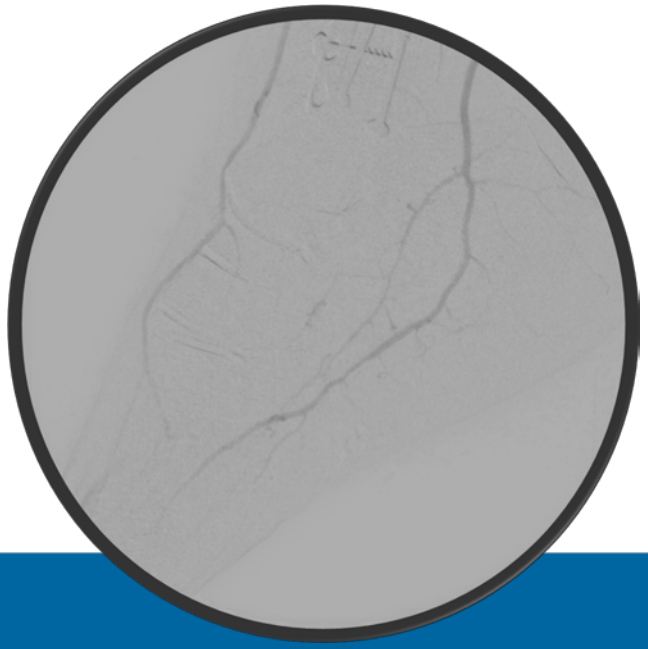
Final Angiogram

Pre-Therapy Angiogram

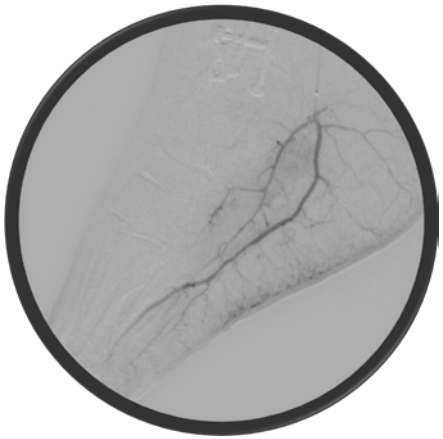


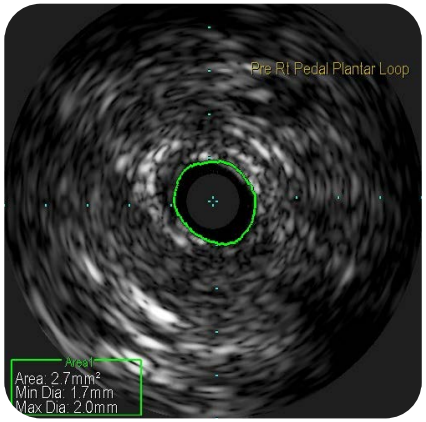
Post-Therapy Angiogram

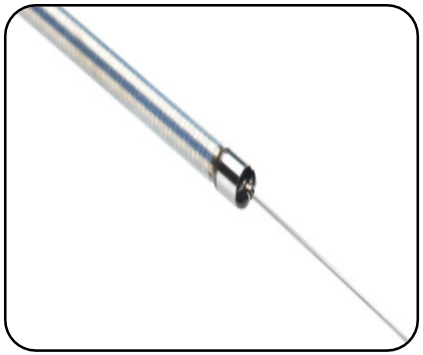


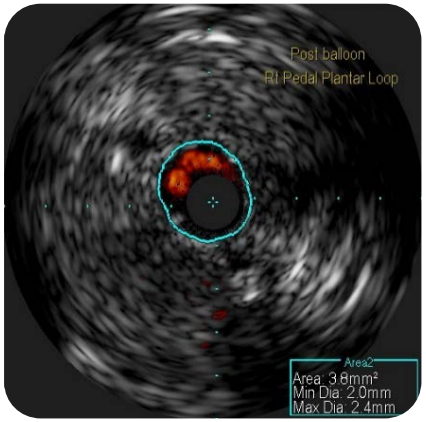
Case performed with 15cc of contrast and 12 minutes of fluoroscopy time.

Conclusion









- Angiogram demonstrated patent SFA with 3 vessel runoff and a CTO in the Plantar Arch.
- The initial IVUS assessment helped to determine the size of the vessel and plaque type was suitable for treatment with the 1.8mm Phoenix device and a 2.5 x 150mm Sterling balloon.
- 1.8mm Phoenix Atherectomy device was utilized to debulk the lesion prior to balloon angioplasty.
- Post IVUS and Angiogram confirmed adequacy of Phoenix Atherectomy with balloon angioplasty. Specifically, IVUS images showed a 71% increase in luminal gain achieved with no adventitial injury or major dissection.
- This case was performed with 15cc of contrast and a final fluoroscopy time of 12 minutes.

*Disclaimer: Intraluminal crossing of the wire through the lesion was achieved first prior to therapy being delivered

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