Imaging Tools To Increase The Safety/Accuracy Of Endovascular Procedures And Reduce Radiation And Contrast Media

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Define the anatomy with CTA/MRA
- Multiple reformats/3D reconstruction

Fusion of Image and Integrated Registration

Left CIA PTA using Vessel ASSIST (GE Discovery 740)

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DISCLOSURE
Consultant
- Terumo Interventional Systems
- Baylis Medical
- GE
- Guerbet

Advisory Board
- Medtronic
- Boston Scientific

Total contrast volume: 15 cc
Left SFA Angioplasty with Vessel ASSIST

Innova Breeze, 10 cc of contrast
Diagnostic CTA
3D Roadmapping

Radial to peripheral using fusion of image
• Store fluoro, monitor
• Store picture,
• No DSA

Simultaneous injections for cone beam CT to define the recanalization path in CVO

Accuracy / safety during Power wire technique in CVO

L SFA 6 x 150 mm DEB PTA, electronic magnification to check details

L SFA 6 x 150 mm DEB PTA, Blended Roadmap, brightness/contrast adjustment during fluoro.
Accuracy / safety during Power wire technique in CVO

Cone beam CT: 3D model fused with fluoroscopy
Safer recanalization path in CVO

RF wire technique is important to check alignment in 3 views: 3D model fused with fluoroscopy follows the obliques

RF wire technique and Image Fusion
Integrated registration

RF wire technique with a curved Power wire
Bilateral Iliac veins and IVC recanalization. Power wire through a tortuous track

Power wire technique - 18 m FU

Bilateral Iliac veins and IVC recanalization. Power wire through a tortuous track

Arterial
Venous
3D model with both
Bilateral Iliac veins and IVC recanalization. Power wire through a tortuous track

CONCLUSION
Recent image technology innovations decrease

- Radiation exposure
- Volume of contrast media
- Complications
- Procedure time

6 months FU