Pedal Arch Reconstruction

George L. Adams MD, MHS, FACC, FSCAI
North Carolina Heart and Vascular
Director of Cardiovascular and Peripheral Vascular Research, Rex / UNC Healthcare
Clinical Associate Professor of Medicine, University of North Carolina Health Systems
Disclosures

- Consultant
  - Abbott Vascular
  - Asahi
  - Bard
  - Cook Medical
  - Cordis
  - CSI
  - Daiichi Sankyo
  - Gore
  - Lake Region Medical
  - Medtronic
  - Penumbra
  - Terumo
  - Volcano

- Research
  - Boston Scientific
  - CloSys
  - CSI
  - Daiichi Sankyo
  - Medtronic
  - Volcano

- Speaker
  - Abbott Vascular
  - Cook Medical
  - CSI
  - Spectranetics
PAD Patients at an Increased Risk for Critical Limb Ischemia

**Advanced Age**
- 40.3M 65+ yrs old in U.S. \(^{(1)}\)
- 85+ age group is fastest growing in U.S. \(^{(1)}\)

**Diabetes**
- Up to 26M in U.S. \(^{(2)}\)
- Diabetes is fastest growing health problem in U.S. \(^{(3)}\)

**Kidney Disease**
- Up to 31M in U.S. \(^{(4)}\)
- Diabetes is leading cause of kidney disease \(^{(2)}\)

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1. The Older Population: 2010 (2010 U.S. Census Briefs; C2010BR-09)
3. Diabetes Fact Sheet from American Diabetes Association
Consequences of CLI & Amputations

4M People with Critical Limb Ischemia

25% Die within 1 yr of CLI onset

30% will get amputation

Of those with an amputation...
Nearly half will die within 2yr

Death within 2 year

Death
Amputation

1. Nehler et al., Epidemiology of peripheral arterial disease and critical limb ischemia in and insured national population. J Vasc Surg, 2014; 60(3): 686-695
For Healing to Happen, the Pipes Must be Open!
Angiosomes of Source Arteries (Lower leg)

- Anterior Tibial Artery (anterior/lateral)
- Posterior Tibial Artery (medial)
- Peroneal Artery (posterior)
Angiosomes of Source Arteries (Foot)
Essentials for Complex CLI Treatment

Tools
- “Carpenter is Only as Good as His Tools”

Skill
- Access
- Crossing
- Treatment

Time
- Patience and Perseverance are Key
Transcollaterals

Deep Femoral (Profunda) – SFA

Geniculate branches from Popliteal – Tibials

Tibial – Tibial
- Peroneal Anterior Comm Branch – ATA
- Peroneal Posterior Comm Branch – PTA
- Plantar Arch Collateral – ATA to PTA
Transcollateral Tools & Techniques

- **General**
  - Long
  - Low Profile
  - Flexible

- **Wires (Collateral)**
  - Floppy Tip
  - Hydrophilic Polymer Coated
  - Strong Body
  - 0.014
  - Recs: Runthrough, Prowater, Sion, Sion blue, Whisper

- **Support Catheter**
  - Flexible
  - Low Profile
  - Hydrophilic
  - Recs: Corsair, Caravel, Micro

- **Wires (CTO)**
  - Stiff Tip
  - Hydrophilic Polymer Coated
  - Strong Body
  - 0.014
  - Recs: 18 & 25g Approach, 18g Victory, 30g Astado Control

- **PTA**
  - Long Shaft
  - Low Profile
  - Rapid Exchange
  - Recs: Cook 0.014LP, Coronary

- **Techniques**
  - Wrapping Wire
  - Double Balloon
Patient History

- 68 y/o female
- IDDM, HTN, and Hyperlipidemia
- Non-Healing wound on the right great toe.

Which Artery is Affected?
Right Great Toe Ulcer
Right Great Toe Ulcer
Right Great Toe Ulcer
Right Great Toe Ulcer

Post-PTA

Post Sheath Removal/PTA
The Impact is Real
Thank you
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