Veith 2018

DEBATE:
IN THE NEAR FUTURE ALMOST ALL LOWER EXTREMITY TREATMENT FOR OCCLUSIVE LESIONS WILL BE ENDOVASCULAR AND ENDO-FIRST WILL BE THE RULE

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Disclosures
• None relevant to this lecture

Peripheral Intervention Evolution
• Better Imaging
• Better Crossing
• Distal Protection
• Ability To Deal With Calcium
• Better Patency
  • Drug-Coated Balloons
  • Wire-Interwoven Nitinol Stents (Supera)
  • Covered Stents (Viabahn)
  • Drug-Eluting Stents (Eluvia and Zilver PTX)/ Coronary DES BTK

Rationale for Endovascular Therapy First
(MUCH LESS INVASIVE)
• Patients are often old and infirmed. Many are not considered surgical candidates because of overall health.
• Surgery requires
  • Inflow
  • Outflow
  • Conduit
  • Incision
• Active infection problematic for surgery (graft infection or sepsis)
• Extensive scarring may make surgery difficult
• PAD is Progressive disease (Interventions can be repeated easily)

Rationale for Endovascular Approach
• PRIMUM NON NOCERE (First do no harm) - Hippocratic oath
  • Entire procedure performed via a sheath from a remote site away from infection.
  • Shorter recovery time and less pain
  • No extensive scar created at access sites
  • BAD INTERVENTION OR BAD SURGERY TAKES AWAY TREATMENT OPTIONS.
Viabahn Endoprosthesis Description

MAJESTIC (Eluvia DES) Subgroup Analysis – 3 Years

Severe Calcification, Occlusion, Diabetes

3-Year Freedom from TLR

Low re-intervention rates among patients with challenging medical and lesion characteristics at baseline

Randomized comparison of Viabahn vs. PTFE femoral-popliteal bypass

(Reprinted from Journal of Vascular Surgery, 2010)

SFA DCB RCT Studies

12-month Primary Patency in perspective

36-Month Safety Profile

- 85.3% Freedom from TLR rate (K-M estimate)
- No target limb major amputations
- 2 deaths at >365 days post-procedure, unrelated to study device or procedure
- No stent fractures

Supera Optimal Deployment Leads To Low Re-intervention Rate Out to 3 Years

SUPERB Freedom from TLR (K-M) by Percent Compression / Elongation at 12, 24, and 36 months

Note: Kaplan-Meier estimates.
**Excellent Freedom From Clinically Driven TLR Through 3 Years**

![Graph showing TLR freedom over time](image)

1. Supera Peripheral Stent System Instructions for Use

See Important Safety Information referenced within.

**Infrapopliteal DES – Meta Analysis**

- **Risk Estimates for DES Therapy versus Control Therapy**
  - In patients with focal disease of infrapopliteal arteries, DES therapy:
    - Reduces the risk of reintervention and amputation compared with plain balloon angioplasty or BMS therapy without impact on mortality and RC at 3-year follow-up

**Revascularization and Amputation Rates Vary by Geography**

![Map showing amputation and revascularization rates](image)

**Decade of LE Endovascular Interventions**

**Intervention taking away surgical options?**

- Extensive wire dissection beyond the point of vascular reconstitution. **(BAD TECHNIQUE)**
- Stenting across common femoral or a patent popliteal artery **(BAD TECHNIQUE)** Surgeons do not bypass to occluded popliteal arteries.
- Embolization compromising outflow **(CAN MITIGATE THIS BY UTILIZING DISTAL PROTECTION)**
- **Interventional-First Approach Should Be Routine**