Dedicated Venous Stents
Comparison of characteristics

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Disclosures

- Optimed GmbH; BARD; TVA; Cordis/Cardinal Health;

Results deep venous stenting

- High mid- to long-term patency: 80-90% secondary
- Optimizing results
  - Anticoagulation
  - Hemodynamics/inflow
  - Stents/stent design
    - Dedicated venous stents

Stents and stent design

- Wallstent
  - First results, NEJM 1991
  - FDA approval for venous use 2001
- “non-dedicated” nitinol stents
  - SMART, Luminex,
- “Dedicated” venous stents
  - Zilver Vena[1,3,5], VICI, sinusi Venous[6]

Anatomical considerations

- “Dedicated” venous stents
  - Zilver Vena; sinusi Venous; Veniti VICI; sinus XL flex
  - Consecutive 10 implanted
- Obstructions
  - Unilateral PTS
  - MTS
  - NO extensive disease/ endophlebectomy
- Imaging/stent evaluation
  - Post-stenting: IVUS and cone-beam CT
  - 6M and 12M follow-up: DUPLEX and X-ray

4. Rosales et al. Eur J Vasc Endovasc Surg 2010
5. George et al. Eur J Vasc Endovasc Surg 2014
6. Park et al. Phlebology 2013
10. De Wolf et al. EJVES. 2015
Surface area and stent integrity

Veniti

Straightening & kinking

6M follow-up 12M follow-up

Straightening & Apposition

Stent positioning
Key points & Recommendations

- New venous stents, pro’s and con’s
  - Fractures
  - Straightening/kinking
  - Poor crush resistance
- Location specific challenges
  - External force at the iliac confluence
  - S-shape curve iliac veins
  - Fracture resistance around inguinal ligament
- Long-term stent integrity
  - Relatively young patients
  - Delayed patency loss