1-Year Experience With Drug Eluting (Everolimus) Biodegradable Stents (ABSORB BVS From Abbott) In BTK Arteries, Including The Tibias

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Disclosure

Speaker name: Ramon Varcoe
Consulting: Abbott, Boston, Gore, Covidien, Medtronic
Advisory Board: Abbott

Why Use Stents?
- Elastic Recoil
- Treat Dissection
- Deliver Drug To The Intima To Prevent Restenosis
- Reduce Late Lumen Loss

Bio-Resorbable Vascular Scaffold
**Absorb BVS Preclinical Safety**
Representative Photomicrographs to 42 months

**A New Paradigm: Vascular Reparative Therapy**

- Mechanical Conditioning
  - Gradual disappearance of supportive structure

Vessel recovers the ability to respond to physiologic stimuli
- Shear stress, pulsatility & cyclic strain
- Tissue adaptation
- Structure and functionality

**STUDY DESIGN**

- Single centre
- 3 Implanters under special access conditions
- Chronic lower limb ischemia: RC 3-6
- Direct replacement for DES
- De novo lesions; length ≤4cm, diameters 2.5-4.0mm
- Tibial arteries (distal P3)

**ENDPOINTS**

- **Safety:** Major adverse events @ 30d
  - Death, target limb loss, major morbidity
- **Feasibility:** Technical success

- Clinical Improvement: Rutherford-Becker Class
- Duplex FU; 1,3,6 & 12mo (PSVR > 2.0)
  - Primary, assisted primary & secondary patency
- TVR, TLR

**RESULTS**

- 37 Limbs (CLI 73%; IC 27%)
  - 32 patients
  - Age range 65-97yo
  - M:F 51:49
- 48 Scaffolds
  - Vessels treated
    - ATA 10
    - PTA 7
    - PA 10
    - TPT 19
    - P3 2
- Mean lesion length 18.7 ±11.1mm (5-50mm)
RESULTS

- 100% Procedural success
- 1 Acute occlusion (day 1: no DAPT)
- 3 death (10%): Outside 30d
- 1 lost to follow up (paf. Ca)

- Clinical Improvement 73%
  - Primary patency 95.5%
  - Assisted primary/secondary patency 100%
  - Limb salvage 100%
  - TLR 4.5%
  - TVR 4.5%

Sustained Clinical Improvement in 73%

\[ \text{Number of Limbs} \]

Rutherford-Becker Class

DESTINY study

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CONCLUSIONS

• BVS can be implanted safely within the tibial vasculature
• Excellent immediate angiographic results and promising 12-month patency can be achieved
• Dual anti-platelet agents are recommended to prevent thrombosis

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