Update On 3-Year Experience With The Absorb Everolimus Drug Eluting Bioresorbable Stent (BRS) From Abbott For BTK Lesions
Promising Results Beyond 2 Years

Ramon L. Varcoe MBBS, MS, FRACS, PhD
Associate Professor of Vascular Surgery
University of New South Wales
Prince of Wales Hospital
Sydney, Australia

Disclosure
Speaker name: Ramon L. Varcoe

I have the following potential conflicts of interest to report:
- Receipt of grants/research support
  Details: Abbott Vascular
- Receipt of honoraria and travel support
  Details: Abbott Vascular, Medtronic, Boston Scientific
- Employment in industry
  Details:
- Shareholder in a healthcare company
  Details:
- Owner of a healthcare company
  Details:
- I do not have any potential conflicts of interest to report

ADVANTAGES OF STENTING

• TO IMPROVE PATENCY
• MECHANICAL SUPPORT
  • Scaffolding
  • Elastic Recoil
  • Flow Limiting Dissection

ADVANTAGES OF STENTING

• TO IMPROVE PATENCY
• MECHANICAL SUPPORT
  • Scaffolding
  • Elastic Recoil
  • Flow Limiting Dissection
• DRUG DELIVERY

DISADVANTAGES OF STENTING

• VESSEL WALL EFFECTS
  • Vasomotion
  • Autoregulation
  • Adaptive Remodelling
• LATE FAILURE
  • Incomplete endothelialisation
  • Fracture
  • Malapposition
• IMPEDIMENT TO FUTURE REVASCULARISATION

A BVS MAY BE THE BEST OF BOTH WORLDS?

• Mechanical Scaffolding
• Drug Delivery
• Potential Return of Normal Vessel Wall Function
• Then Disappears!
**Poly-L-Lactic Acid structure**
- Poly-D,L-Lactic Acid polymer
- Everolimus (100µg/cm²)
- 80% (±10%) elutes 28d

**Multilink design**
- Circumferential hoops
- Straight connection bridges
- Radio-opaque platinum markers
- 150 µm strut thickness

**STUDY DESIGN**
- Prospective, Non-Randomised, Single-Center Study

**Inclusion Criteria**
- Chronic lower limb ischemia: RC 3-6
- Life expectancy >1yr
- Single or Multiple De novo lesions; >60%
- Infrapopliteal arteries (distal P3)
- Total Lesion Length ≤5cm (Max 2xBVS)
- Diameters 2.5-4.0mm

**PATIENTS**
- 48 Patients
  - Male:Female 56:44%
  - Mean Age 82yrs (range 65-97yrs)
- 55 Limbs
  - Left:Right 45:55%
  - CLI:IC 73:27%

**RESULTS**
- 71 Scaffolds Implanted
  - Target vessels treated
    - ATA 15
    - PTA 9
    - PA 15
    - TPT 29
    - P3 2
  - Mean lesion length 20.1 ±10.8mm (5-50mm)

**ENDPOINTS**
- Binary Restenosis
- Primary Patency
- CD-TLR
- CD-TVR
• 100% Procedural & Technical success
• 12 deaths (25% of cohort) (All Outside 30d)

Mean Follow-Up 24 months
Sustained Clinical Improvement 93%
Primary patency 61/71 (85.9%)
Assisted primary/secondary patency 100%
Limb salvage 100%

Sustained Clinical Improvement in 93%
Change in Rutherford Category

0 5 10 15 20 25 30 35
-1 -2 -3 -4 -5 -6

1 0 -1 -2 -3 -4 -5 -6
Change in Rutherford Category

Patency N at risk 48 31 15
SE (%) 3.5 3.9 6.5
Freedom from TLR N at risk 48 31 15
SE (%) 2.0 2.0 6.2

PRIMARY PATENCY 92.0%
CD-TLR 97.2%

PRIMARY PATENCY 90.1%
CD-TLR 97.2%
CONCLUSIONS

- Vascular restorative therapy with BVS offers several advantages over metal stents
- Safety using ABSORB BVS within the tibias has been demonstrated, now at longer timepoints
- Excellent 12 & 24-month patency has been maintained to “best-in-class” 36-month results

Update On 3-Year Experience With The Absorb Everolimus Drug Eluting Bioreosorbable Stent (BRS) From Abbott For BTK Lesions
Promising Results Beyond 2 Years

Ramon L. Varcoe MBBS, MS, FRACS, PhD
Associate Professor of Vascular Surgery
University of New South Wales
Prince of Wales Hospital
Sydney, Australia