VasQ™ improves functional maturation: Randomised controlled multinational study results

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Disclosure

Speaker name:

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I have the following potential conflicts of interest to report:

☐ Consulting

☐ Employment in industry

☐ Stockholder of a healthcare company

☐ Owner of a healthcare company

☐ Other(s)

X I do not have any potential conflict of interest
Hemodynamic changes promotes intimal Hyperplasia

- High wall tension
- Areas of turbulent flow promote low shear stress
- Low Sheer stress and High wall tension promotes intimal hyperplasia
The Brace
Inducing Unidirectional Flow

Multidirectional/turbulent flow

Optimized peri-anastomotic geometry

Unidirectional/Laminar flow

Angle
Radius of curvature
Pressure at the heel of the artery
The Braid
Increase Wall Shear Stress, Reduce Wall Tension

Unsupported
- High wall tension
- Decreased shear stress

Optimized vein configuration
- Conical configuration
- Optimized proximal/distal diameter ratio

Supported vein segment
- Relieves wall tension
- Increased shear stress
Implantation Procedure
Functional maturation: Patient with patent fistula, needing dialysis and using fistula as access.
Higher Freedom from Stenosis and Occlusion

![Graph showing the percentage of patients free from event over time with two curves representing Control and Device groups. The graph indicates a statistically significant difference (P=0.0439).]
Improved vein remodeling
Barcelona Single Center Experience

› **9 patients** received BrachioCephalic Fistula with VasQ™
  between Aug. 2017 and Jan. 2018

› Patients selection based on standard of care with no exclusions
Results

- Perfect Primary Patency
- **No** Occlusions and Stenosis
- Average Time from Operation to fistula use: **38 days**

- One patient needed **superficialization** due to obesity
Short Time for Fistula Use

Maturation and Functionality Rate

Fistula Functionality
N=5

Maturation
N=9

- Fistula Functionality - % of patients on dialysis using fistula
Improved Fistula Functionality at 3 Months

**Extension Study**
- Control: 45%
- VasQ: 55%
- Catheter: 10%
- Fistula: 90%

**Barcelona Experience**
- VasQ: 100%

$p = 0.024$
Conclusions

Use of VasQ shows promising results in:

✓ Promote improved **patency**
✓ Shorten **time to use** of the fistula
✓ Increase **functionality** of the fistula