3 Year Results
Vasculomimetic Stents (Supera, Abbott) in Angulated Arteries

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Disclosures
None Pertaining to this Presentation...

Challenges in Non SFA territory
- Across joints /cavities /curves
- Flexibility of arteries
- Conformability at angulations
- Kink/Fractures

Supera Stent
- Mimics the natural structure and movement of the anatomy
- Low chronic outward force (1:1 sizing)
- High Radial strength
- Durable/Low fracture design
- Kink resistant
- Stands up to calcium (no recoil)
- No difference in restenosis rates between 12 cm and 3.5 cm lesions
- Low re-intervention rates out to 2 years

Properties of Supera Stent utilised in Non Fem-Pop Regions
- Conformability
- Flexibility
- Mobility
NON SFA TERRITORIES

STENTING ARM AVF’s

CHALLENGE

• Withstand pulsatility, external compression forces, and bending fatigue
• No single stent is ideal for all indications
• EIA stents more prone to fractures
• ~5%


• Need: flexible, compliant, self-expanding with very high radial resistive force

Subclavian Artery Stenting

ANGULATIONS CIA, EIA
Extension-inflation-torsion experiments at different axial strains (0–20%), transmural pressures (0–200 mmHg) and torsion (±25°) on preconditioned arterial tubes were performed.

- Residual stresses in both circumferential and axial direction were determined.
- Both arteries showed distinct stiffer behavior in circumferential than in axial direction.

Circumferential stiffness of common iliac arteries at physiological conditions increased significantly with ageing (r=-0.67, p<0.02).
Transbrachial Approach

Our Experience

- August 2015 onwards
- 35/248 cases (Non Fem-pop)
- On going followup
- 100% patency till now, No Fractures
- Experience...... other centers
- Follow up

THANK YOU
Review of Literature

Supera- Limitations

- Difficult to land precisely
- Does not conform well in areas of size mismatch
- Must utilise an 0.018 or 0.014 wire
- Maximum Diameter available in India- 7mm
- Maximum length available – 200 mm (5,6mm, 7mm-80mm)

Tortuosity Index

Ratio of vessel curve length over the line distance between the two ends