F/B EVAR for Post-Dissection TAAAs with Value of Inner Branches and the New BeGraft+

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Lay-out

• Updated Results of F/B EVAR
• Value of Inner Branched Grafts
• The new BeGraft+ for branches

Feasibility

– We can work in a small True Lumen
– Fairly Easy to switch from True/False lumen
  ← Many entries/re-entries...
– Additional technical challenges ← unfriendly anatomy

Experience Nürnberg/Regensburg

Outcomes of Fenestrated/Branching Endografting in Post-dissection Thoracoabdominal Aortic Aneurysms

Experience Nürnberg/Regensburg
Experience Nürnberg/Regensburg

Updated Experience (N=78) Nürnberg (N=49)/Regensburg (N=29)

• 57/78 after previous surgery:
  – Proximal stent-grafting for Type B (N=34)
  – Open surgery for Type A (N=23)

• Type of Graft:
  – Combination of Fenestrations/Branches (N=27)
  – Fenestrations only (N=43)
  – Branches only (N=8)

Surgical Outcome

• Technical Success (endovascular): N=74 (95%)
  – 1 Assisted (Retrograde renal catheterisation)
  – 2 RA Catheterization Failure
  – 1 Conversion

• 30-d Mortality: N=4 (5%)
  – Cardiac (N=2)
  – MOF (N=1)
  – Caval Vein rupture (post-op Sheldon) (N=1)

Surgical Outcome

• SCI: N=12 (15.4%)
  – Paraparesis (N=9), complete recovery
  – Paraplegia (N=3), improvement to paraparesis

Late Results: Survival
F/U: 26.6 months (1-77 months)

• 12 Aneurysm unrelated deaths

• No ruptures

Late Results: Target Vessels
F/U: 26.6 months (1-77 months)

98.6 ± 8.0% 1 Year
97.2 ± 1.3% 2 Years
Late Results: Target Vessels
F/U: 26.6 months (1-77 months)

- Target vessel occlusion: N=6
  (3x RRA, 1x LRA, 1x SMA, 1x CA)
  - 4 Patients asymptomatic (RRA, LRA, SMA, CA)
  - 1 Iliac-renal Bypass (RRA)
  - 1 Dialysis (RRA, with occlusion of LRA)

Late Results: Reinterventions
F/U: 26.6 months (1-77 months)

75.8 ± 5.7%  1 Year
62.7 ± 6.8%  2 Years

- Reinterventions due to Endoleak
  - Target vessels N=13 (18 vessels)
  - IBD uni/bilaterally N=6
  - Extension to EIA/Embolization IIA N=2
  - Coil Embolization Type II N=2
  - Lap. Clipping IMA N=1

Type I EL (left renal artery)

Distal landing in dissected CIA

Distal landing in dissected CIA

Complete sealing during F/U:

Intraoperative Endoleak

Complete sealing @ 12 months
Persisting endoleak @ 9 months

Intraoperative Endoleak
Persisting endoleak @ 9 months

Reintervention: Bilateral IBD

Distal landing in dissected CIA
Incomplete sealing during F/U:

Sac Diameter Regression during F/U

65.5 ± 10.4 mm → 54.2 ± 13.6mm
(p=0.005)

The "Inner Branch Option“ in a Post-Dissection TAAA
Launch BeGraft peripheral
Launch BeGraft peripheral - modified design -
Launch BeGraft peripheral PLUS

Higher Radial Force

Flexible and Kink-Resistant

RRA
Nürnberg Experience with BeGraft* (initially tested in „difficult anatomy“)

- **Patients:** N=32 (BeGraft+: N=57)
  - Branches in TAAA patients: N=42
  - IBD branches: N=15

- **Outcome**
  - Occlusion: N=1 (1.8%) due to Transition Problem

**Conclusions**

- F/B grafts are a realistic option to treat “Post-dissection TAAAs”
  - Careful planning and technical execution required

- Inner Branches additional valuable option (not only for post-dissection TAAAs)

- BeGraft+ new generation of Bridging Stent-grafts