Outer/Inner/Upward branches or fenestrations: Strategies for complex aortic repair for patients with Chronic TBADs: Advantages and limitations of each

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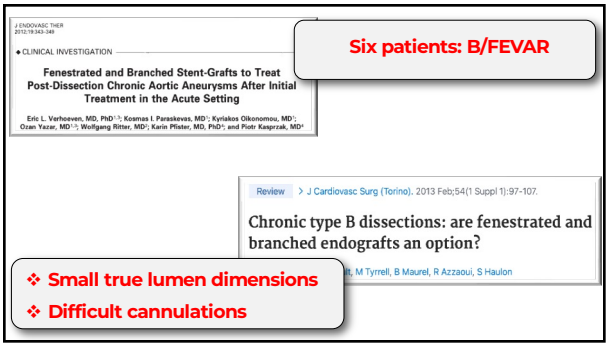
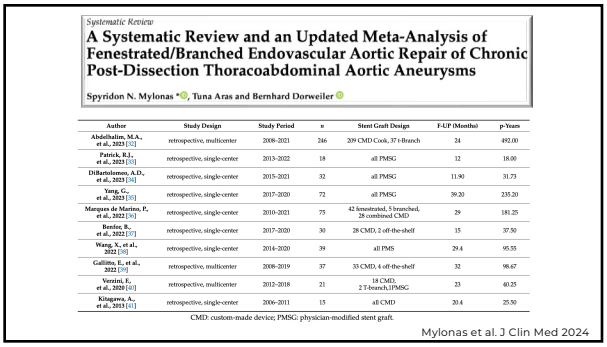
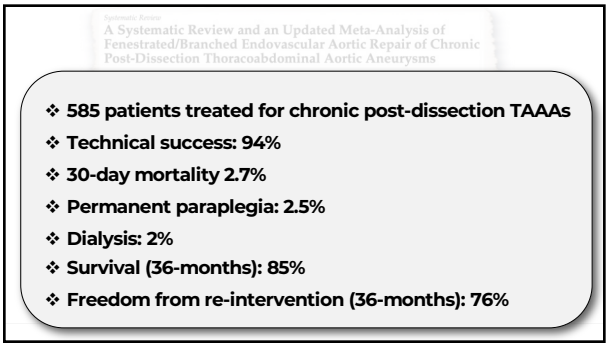


Six patients: B/FEVAR

- Small true lumen dimensions
- Difficult cannulations

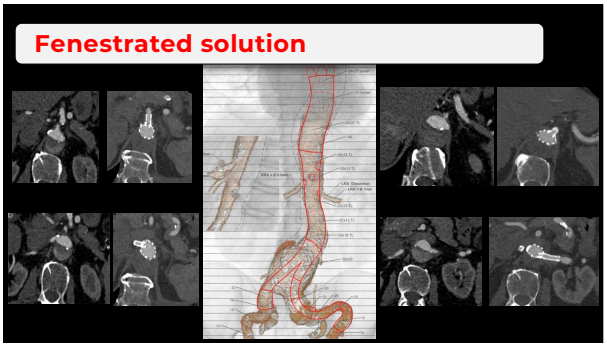


Mylonas et al. J Clin Med 2024



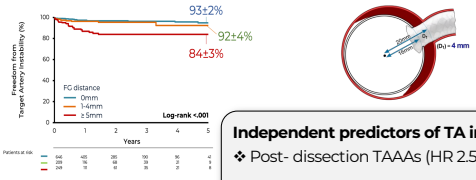
- 585 patients treated for chronic post-dissection TAAAs
- Technical success: 94%
- 30-day mortality 2.7%
- Permanent paraplegia: 2.5%
- Dialysis: 2%
- Survival (36-months): 85%
- Freedom from re-intervention (36-months): 76%

Fenestrated solution



Impact of gap distance between fenestration and aortic wall on target artery instability following fenestrated-branched endovascular aortic repair

Jesse Chait, DO,[a] Emanuel R. Tenorio, MD, PhD,[a,b] Bernardo C. Mendes, MD,[a] Guilherme B. Barbosa Lima, MD,[a] Giulianna B. Marcondes, MD,[a] Joshua Wong, MBE,[a] Thanila A. Macedo, MD,[a] Randall R. De Martino, MD,[c] and Gustavo S. Oderich, MD,[a] *Rochester, Minn; and Houston, Tex*

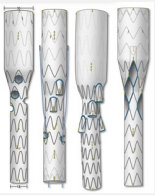


Independent predictors of TA instability:
- Post- dissection TAAAs (HR 2.5, CI 1.2-5.4)
- FG ≥5 mm (HR 1.6; CI 1.2-1.8)

Chait et al. J Vasc Surg 2022

Evolution in endovascular approaches

- Fenestrated→ Outer branches → Inner branches
- Off the shelf
- Device profile
- Reducing gap to target vessel ostium
- Trans-femoral approach
- Choice of mating stent



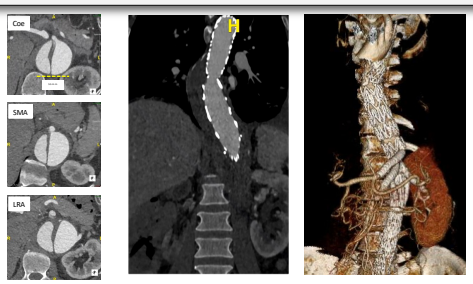
From the Society for Vascular Surgery

Multicenter trans-Atlantic experience with fenestrated-branched endovascular aortic repair of chronic post-dissection thoracoabdominal aortic aneurysms

- 246 patients treated for chronic post-dissection TAAAs
- Fenestrations 581 (63%)
- Directional branches 336 (37%)
- Patient specific 209 (85%), tBranch 37 (15%)

Abdelhalim et al. J Vasc Surg 2023

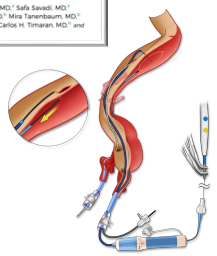
Outer branches



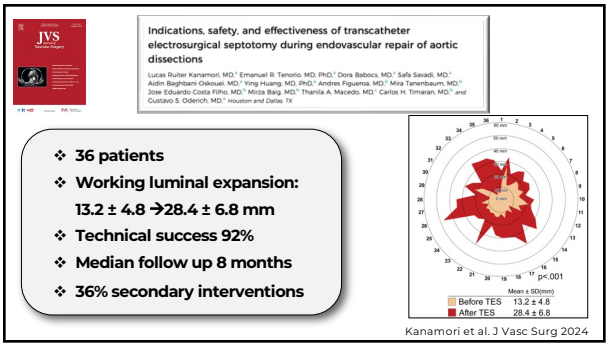
Indications, safety, and effectiveness of transcatheter electrosurgical septotomy during endovascular repair of aortic dissections

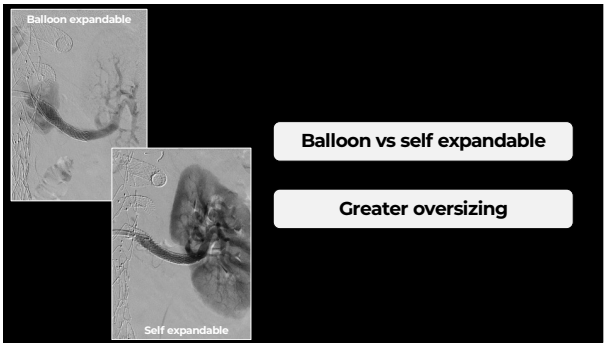
Lucas Ruiter Kanamori, MD,[a] Emanuel R. Tenorio, MD, PhD,[a] Dora Baboca, MD,[a] Safa Savadi, MD,[a] Aidin Baghbani-Oskouei, MD,[a] Ying Huang, MD, PhD,[a] Andres Figueroa, MD,[b] Mira Tanenbaum, MD,[b] Jose Eduardo Costa Filho, MD,[a] Mirza Baig, MD,[a] Thanila A. Macedo, MD,[a] Carlos H. Timaran, MD,[a] and Gustavo S. Oderich, MD,[a] *Houston and Dallas, TX*

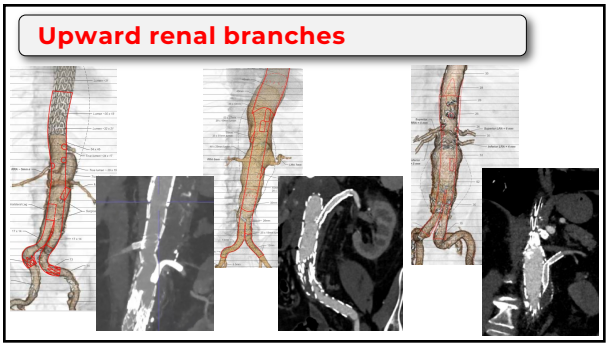
- 36 patients
- Working luminal expansion: 13.2 ± 4.8 →28.4 ± 6.8 mm
- Technical success 92%
- Median follow up 8 months
- 36% secondary interventions

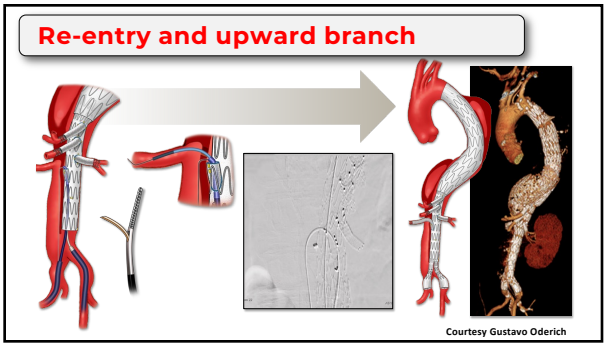


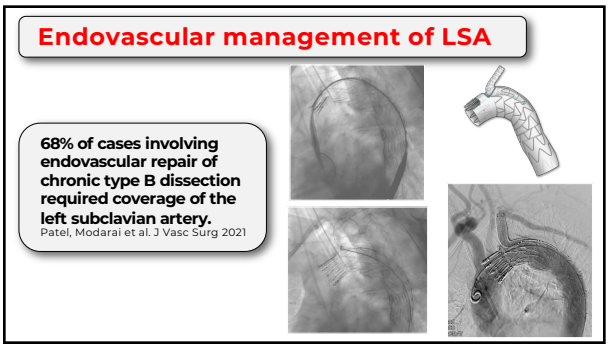
Kanamori et al. J Vasc Surg 2024





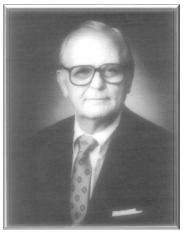






Summary and conslusions

- Endovascular TBAD treatment presents challanges
- These challenges require a range of graft designs
- Re-intervention is common
- Paradigms for index Intervention have evolved
- Fertile ground for novel endovascular solutions



E. Stanley Crawford
1922-1992

“No patient should be considered cured of aortic dissection”