



Professor Andrew
Holden

Challenges in EVAR: Focus on Aortic Dissections

Treatment Approaches for the Distal Landing Zone in Type B Dissection

LINC 2021 1.28.21



Disclosure

Professor Andrew Holden

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I have the following potential conflicts of interest to report:

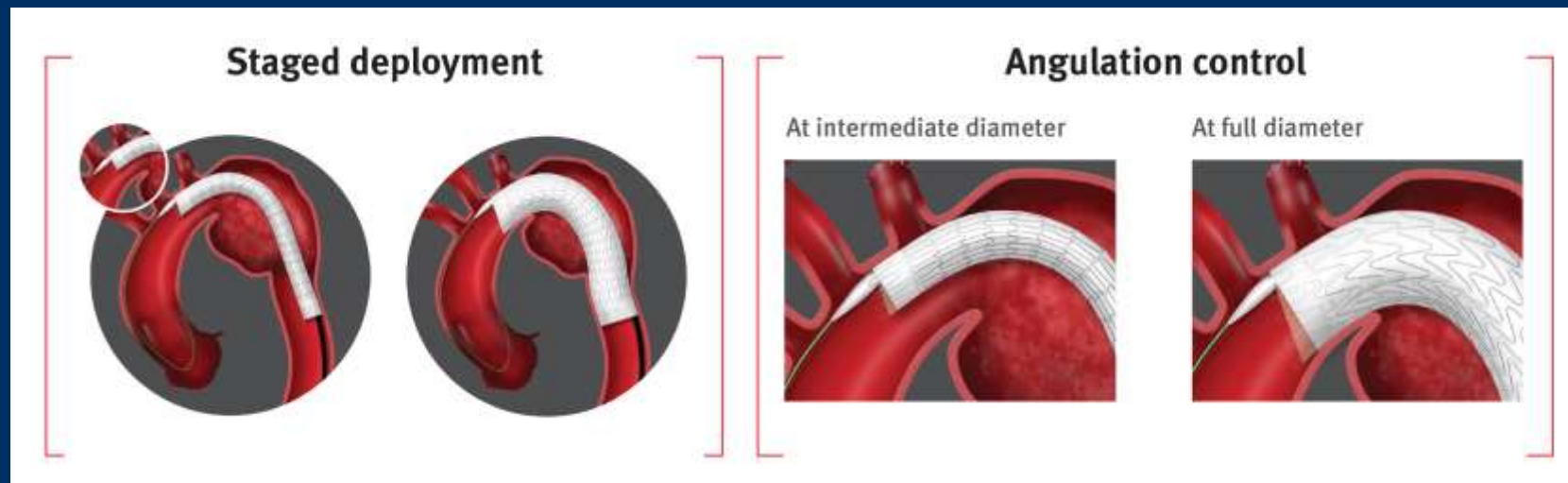
- Consulting – Advisory Board Member for Medtronic, Gore, Boston Scientific, Philips
- Employment in industry
- Stockholder of a healthcare company
- Owner of a healthcare company
- Other(s) – Clinical Investigator for Abbott, e-Femoral, Biotronik, Surmodics

- I do not have any potential conflict of interest



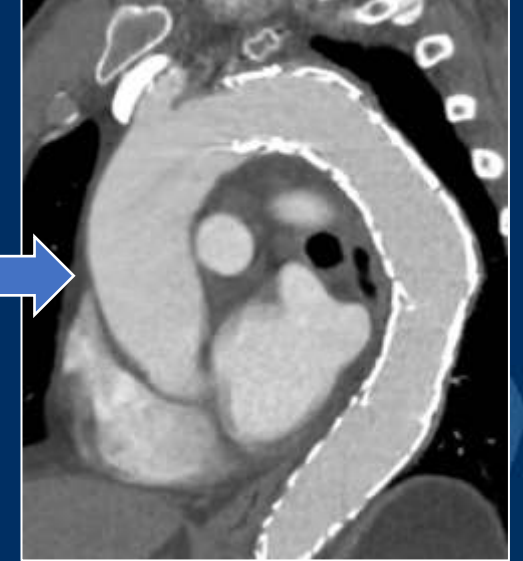
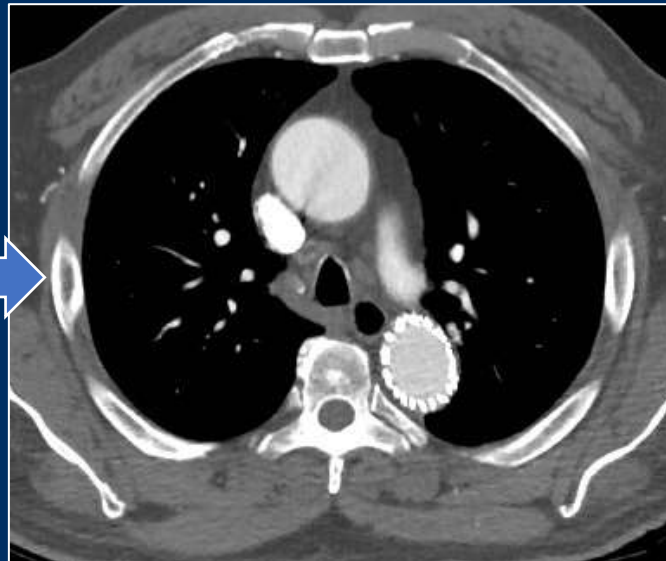
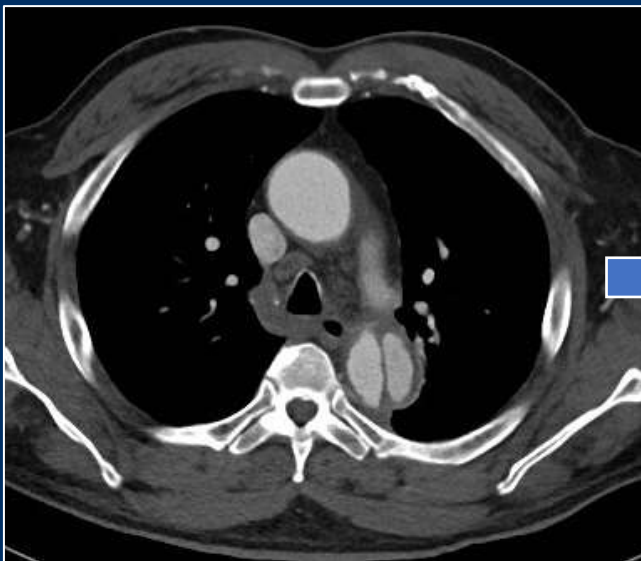
Background

- For all aortic pathologies, accurate and predictable proximal endograft landing and deployment is vitally important to optimize seal and preserve aortic branches
- The GORE® TAG® Conformable Thoracic Stent Graft with ACTIVE CONTROL has a number of design features to facilitate this



Background

- However, the importance of accurate distal landing is often overlooked
- In Type B aortic dissection, more extensive descending thoracic aortic coverage results in improved true lumen expansion and coverage of intimal fenestrations but at a small increased risk of spinal cord ischemia



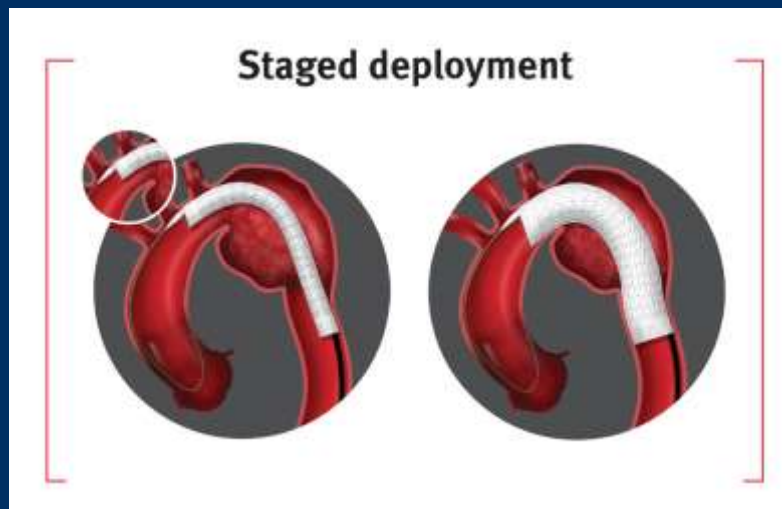
Background

- However, the importance of accurate distal landing is often overlooked
- In Type B aortic dissection, more extensive descending thoracic aortic coverage results in improved true lumen expansion and coverage of intimal fenestrations but at a small increased risk of spinal cord ischemia
- Accurate distal landing prevents unplanned coverage of aortic branches including intercostal arteries and the visceral arteries
- The distal thoracic aorta is often tortuous, challenging accurate distal landing

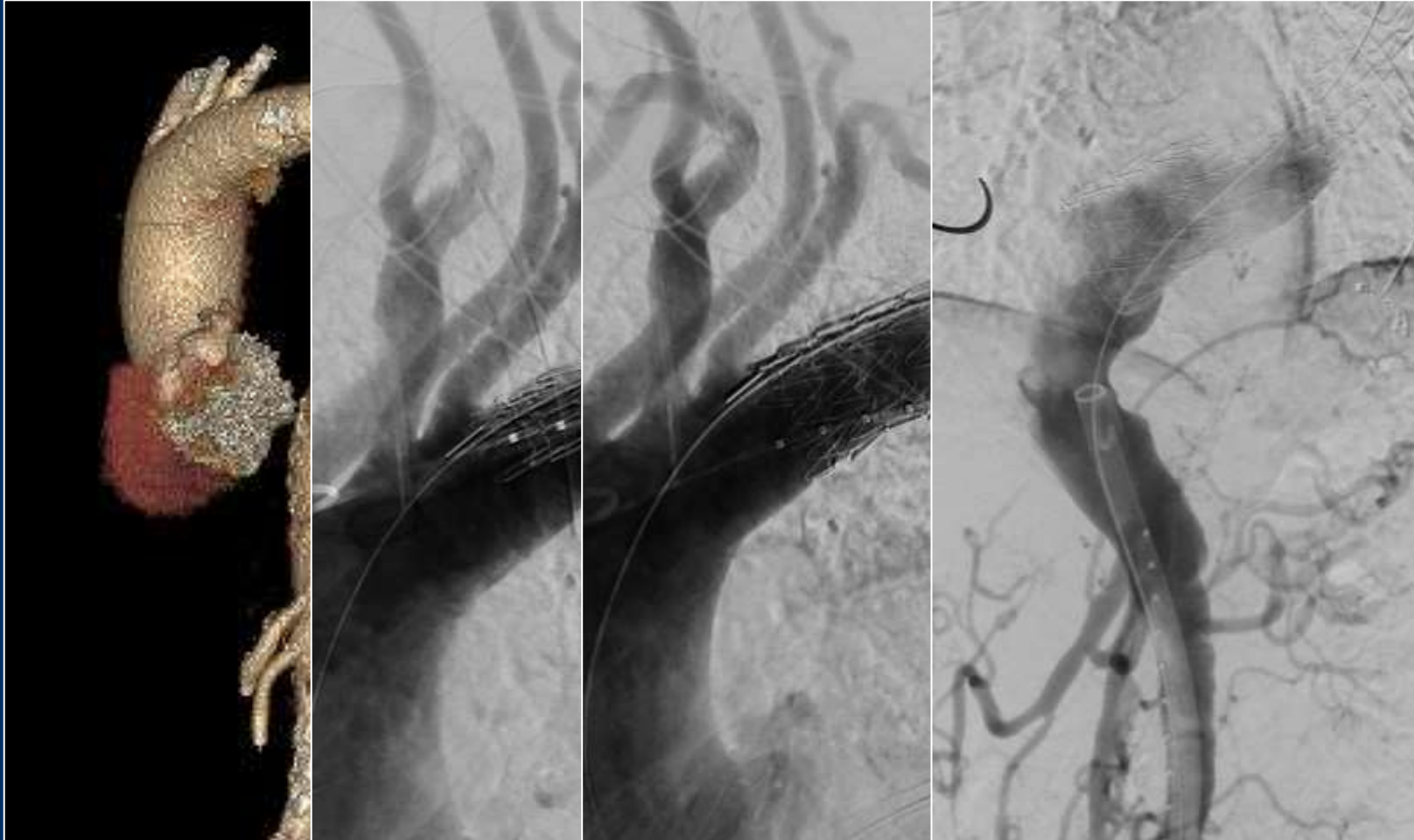


Optimized Distal Landing

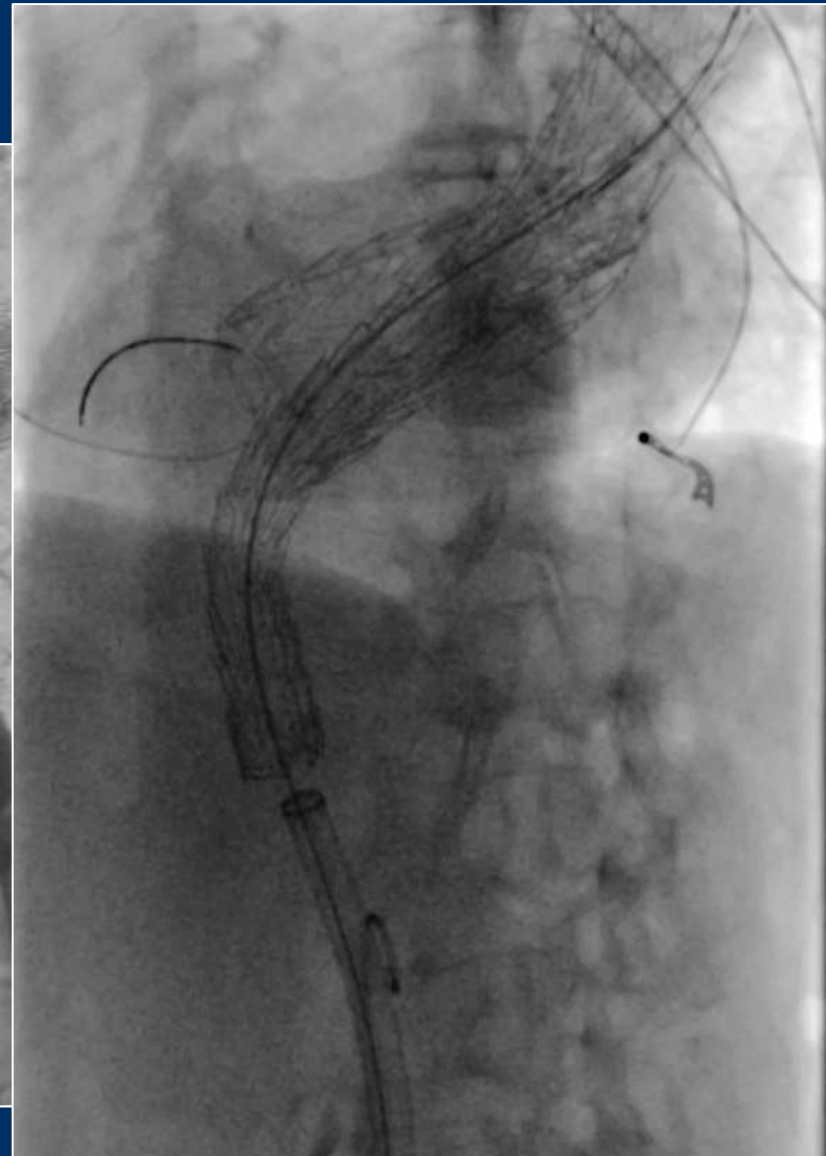
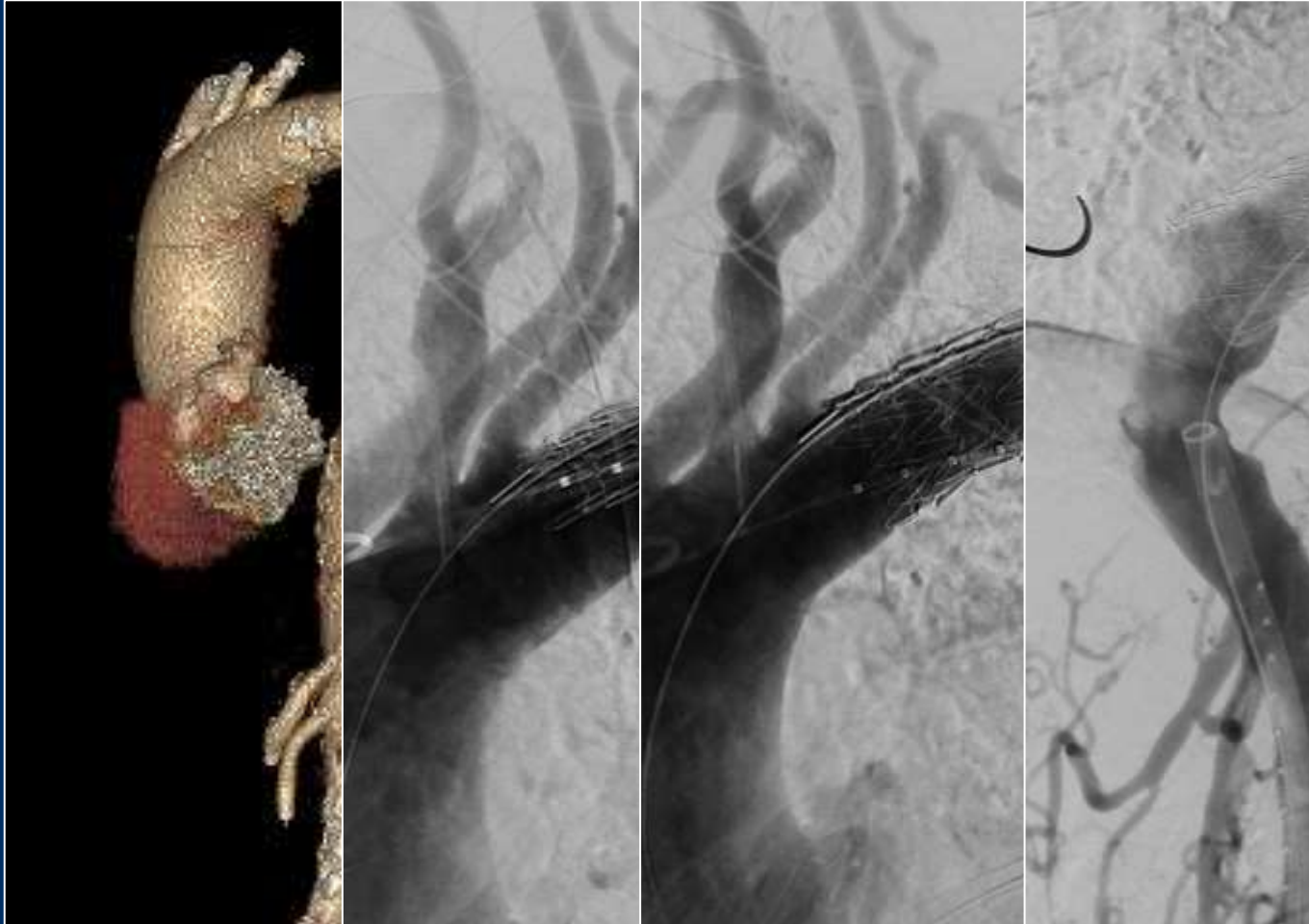
- The GORE® TAG® Conformable Thoracic Stent Graft with ACTIVE CONTROL also has design features to optimize distal landing
- Deployment between intermediate to full diameter is from DISTAL – PROXIMAL, minimizing the risk of migration
- Distal end is fully covered, designed to decrease the risk of septal perforation at the distal landing zone in dissection



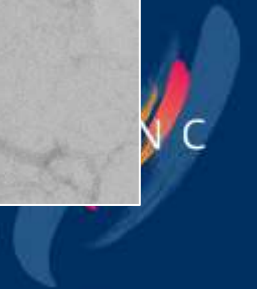
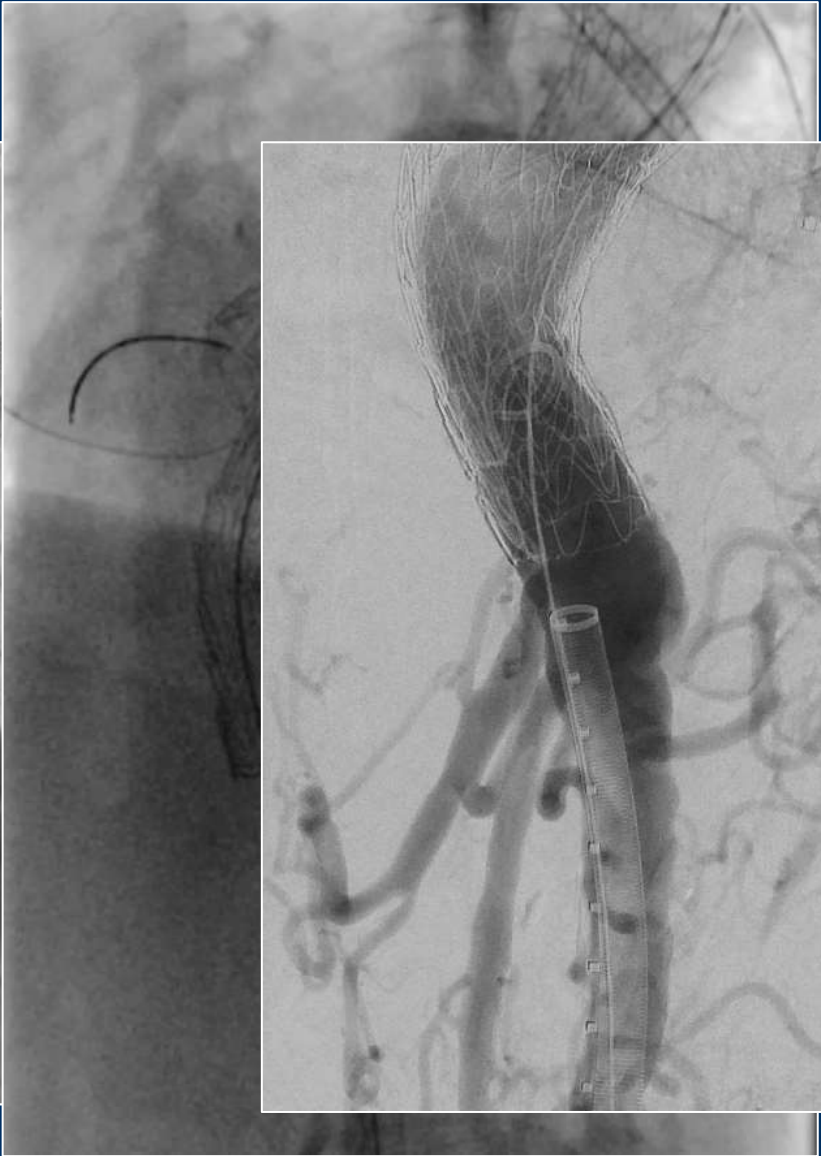
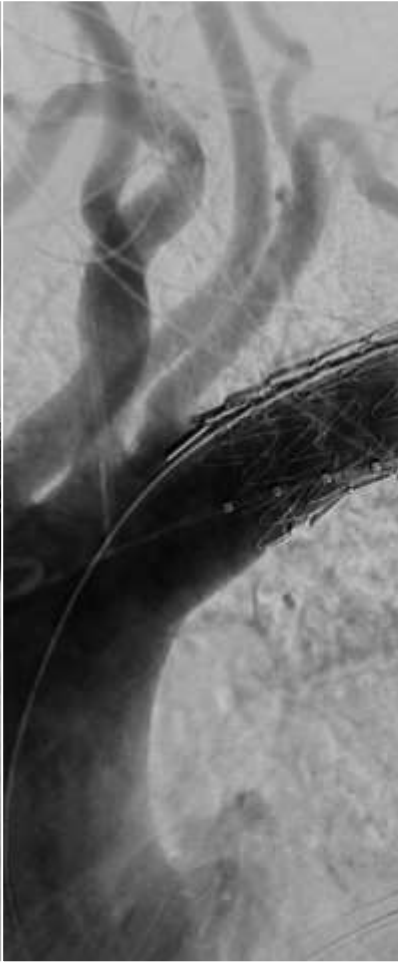
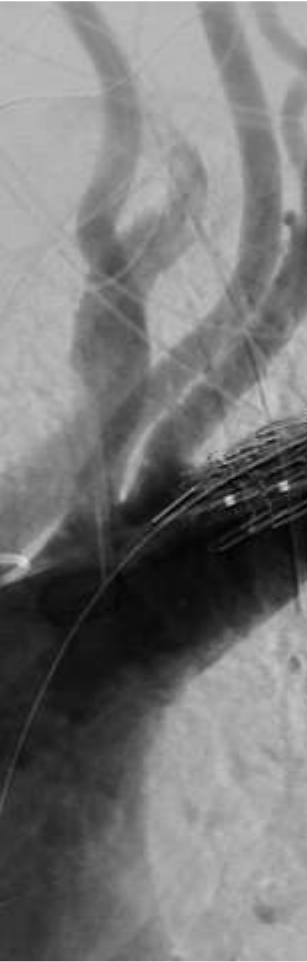
Optimized Distal Landing



Optimized Distal Landing

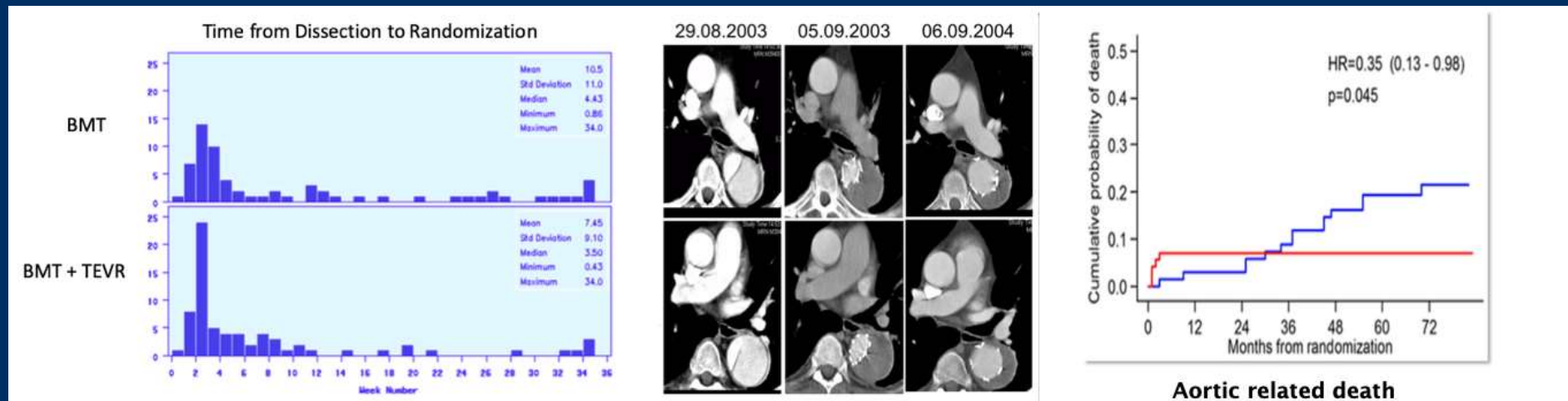


Optimized Distal Landing



False Lumen Management in Aortic Dissection

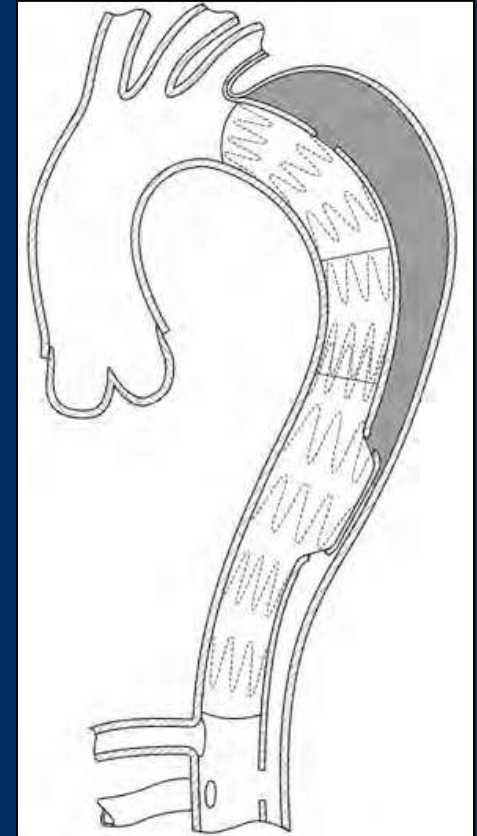
- False lumen thrombosis and favourable aortic remodelling significantly reduces the incidence of aortic-related death
- This was clearly demonstrated in the INSTEAD Trial, with patients largely treated in the sub-acute phase^{1,2,3}



1. Nienaber C et al, Circulation 2009;120:2519-28
2. Mani et al Eur J Vasc Endovasc Surg 2012;43:386-91
3. Nienaber C et al, Circ Cardiovasc Int 2013;6:407

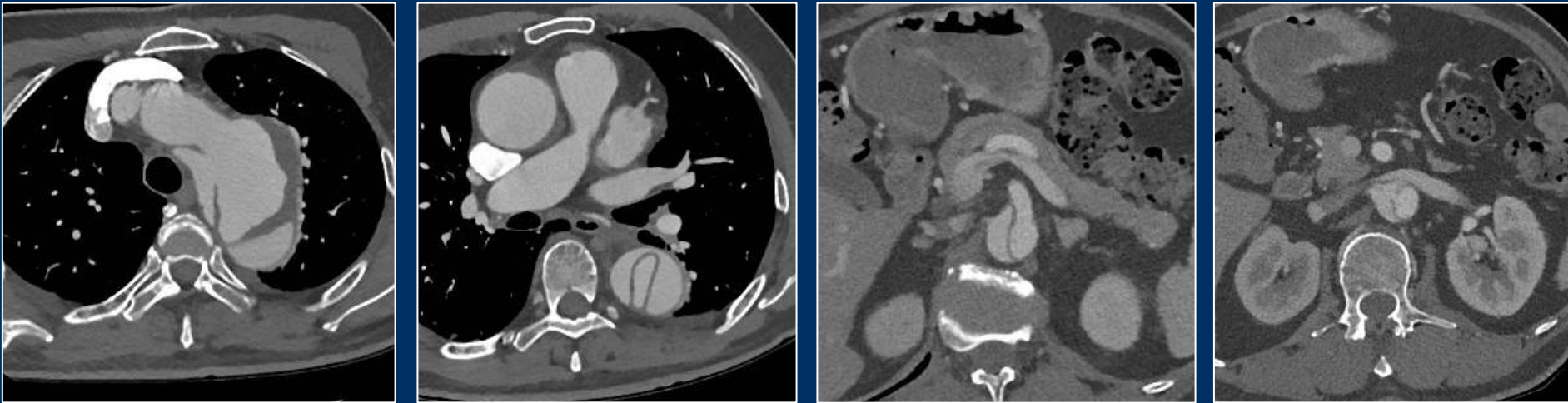
False Lumen Management – Knickerbocker Technique

- A relatively simple and effective method of excluding the false lumen in the thoracic aorta and preventing retrograde perfusion
- Used extensively in sub-acute and chronic aortic dissection
- Conventional endografts can be used in the descending thoracic aorta, sized approximately to the outer diameter of the dissected aorta



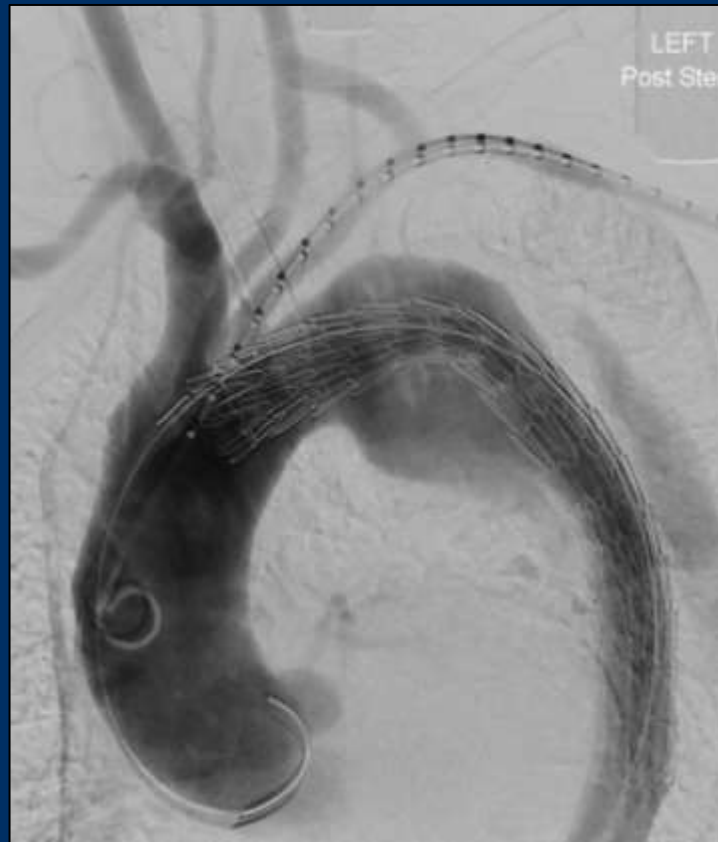
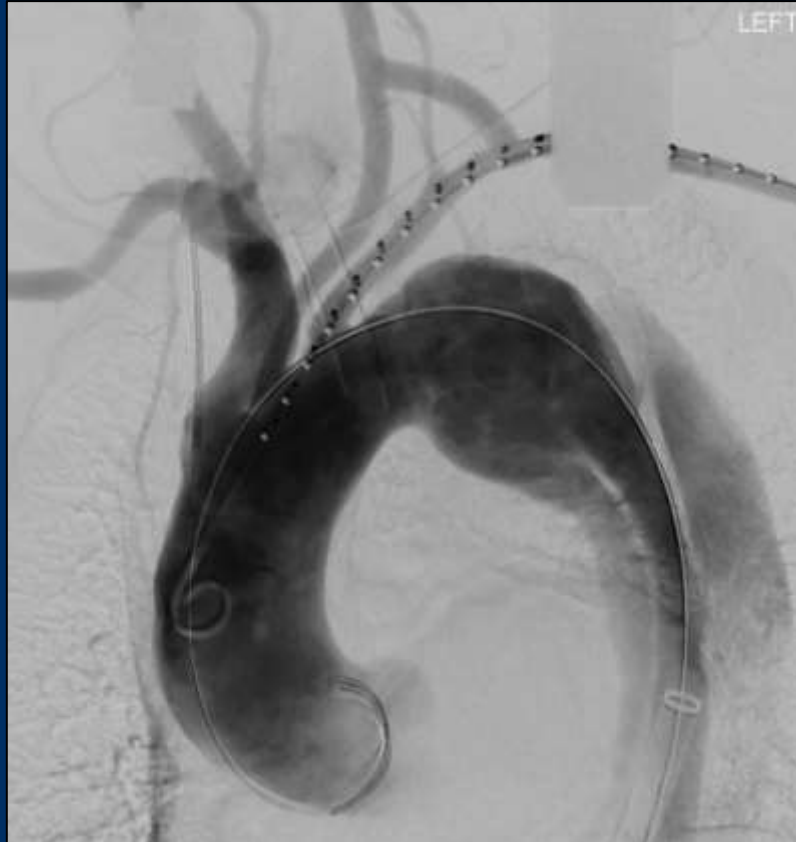
False Lumen Management – Knickerbocker Technique

- A compliant balloon is used
- A long supportive sheath is advised to prevent caudal migration
- The dilated segment should be at least 1 stent element above the distal landing zone to avoid further intimal disruption



55 year female, chronic TBAD, progressive dilatation

False Lumen Management – Knickerbocker Technique





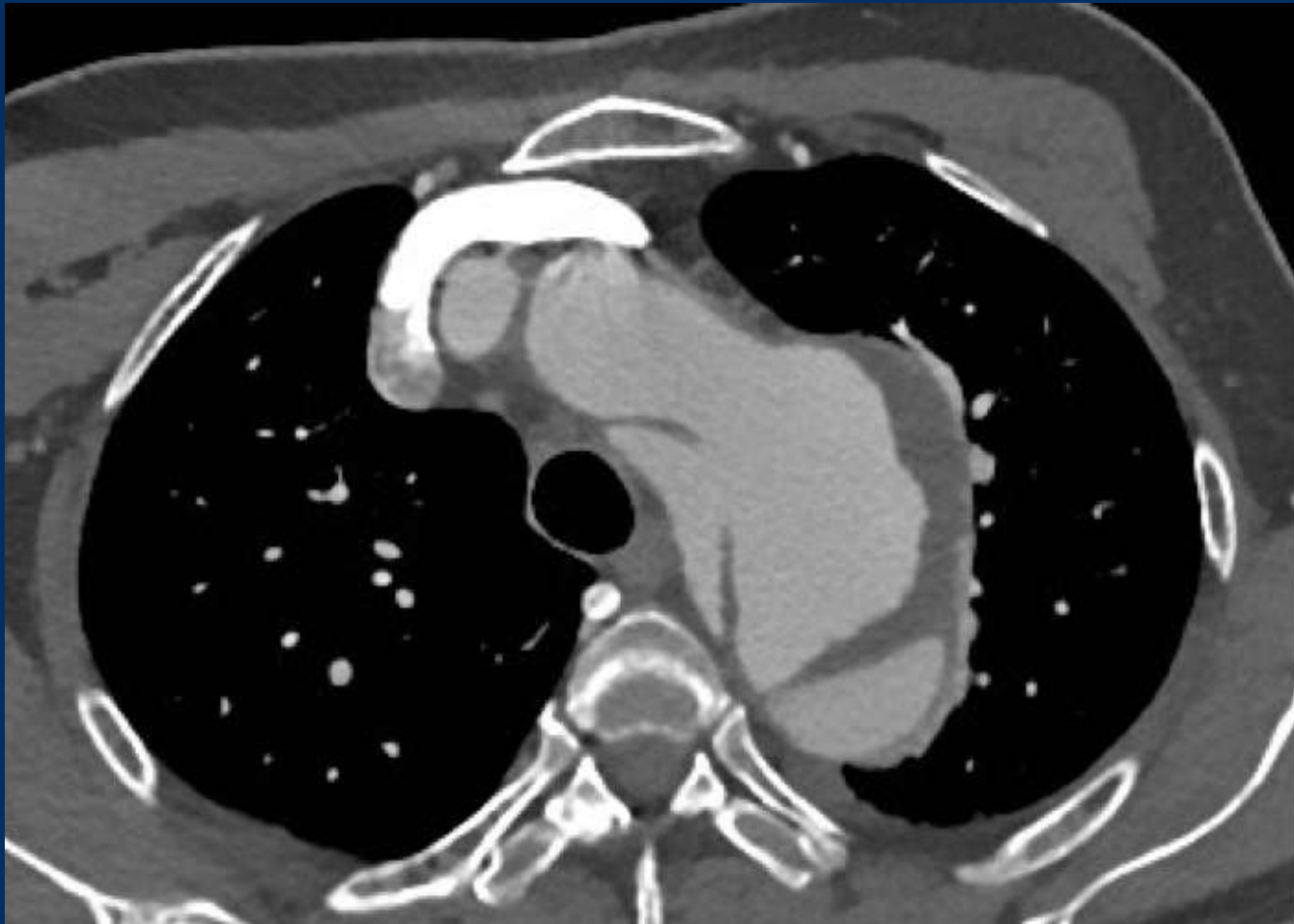




Pre-Knickerbocker



Post-Knickerbocker



Conclusions

- Accurate and predictable distal landing of endografts is an important feature of aortic dissection management
- The GORE® TAG® Conformable Thoracic Stent Graft with ACTIVE CONTROL has design features to optimize distal landing
- False lumen thrombosis and positive aortic remodelling is important to optimize patient survival and can be facilitated by the simple and effective Knickerbocker Technique





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