Management of Branch Vessel Occlusions and Lower Extremity Ischemia Associated With Aortic Dissection

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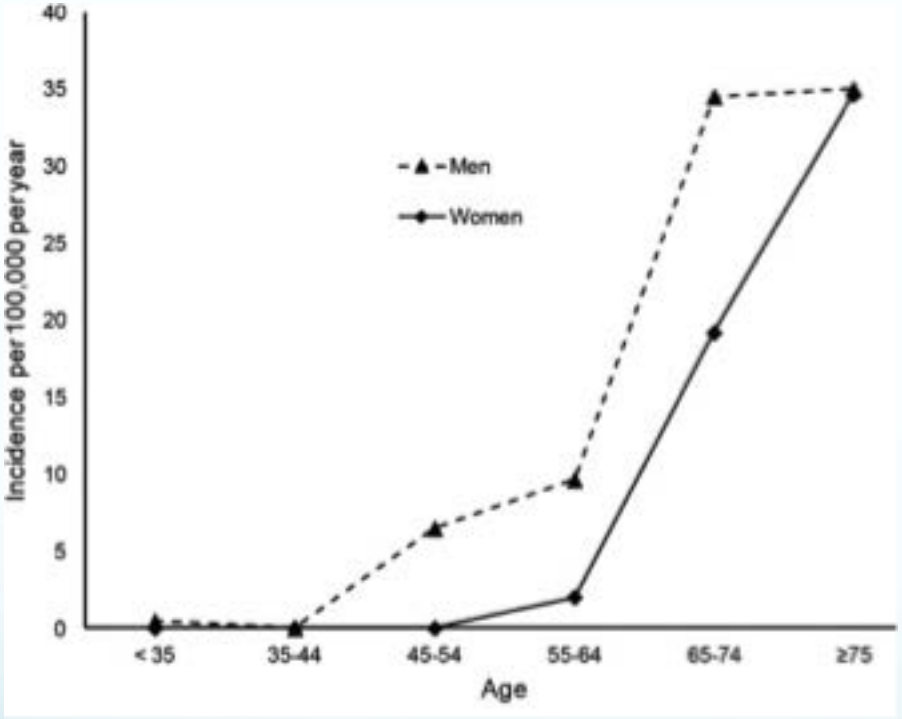
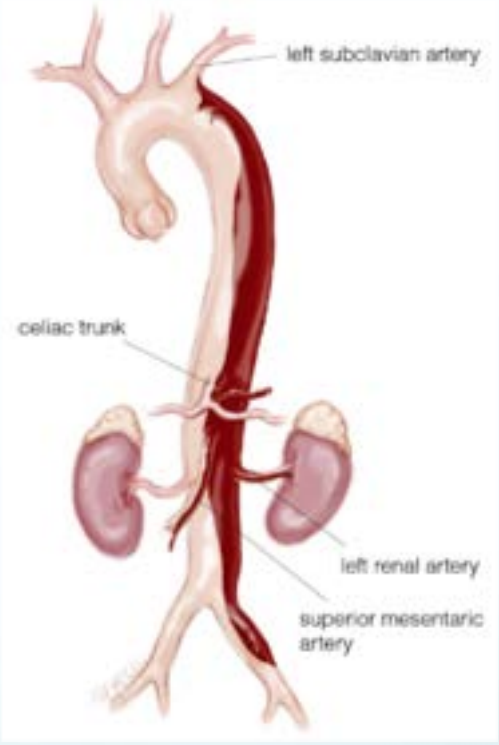
Disclosure

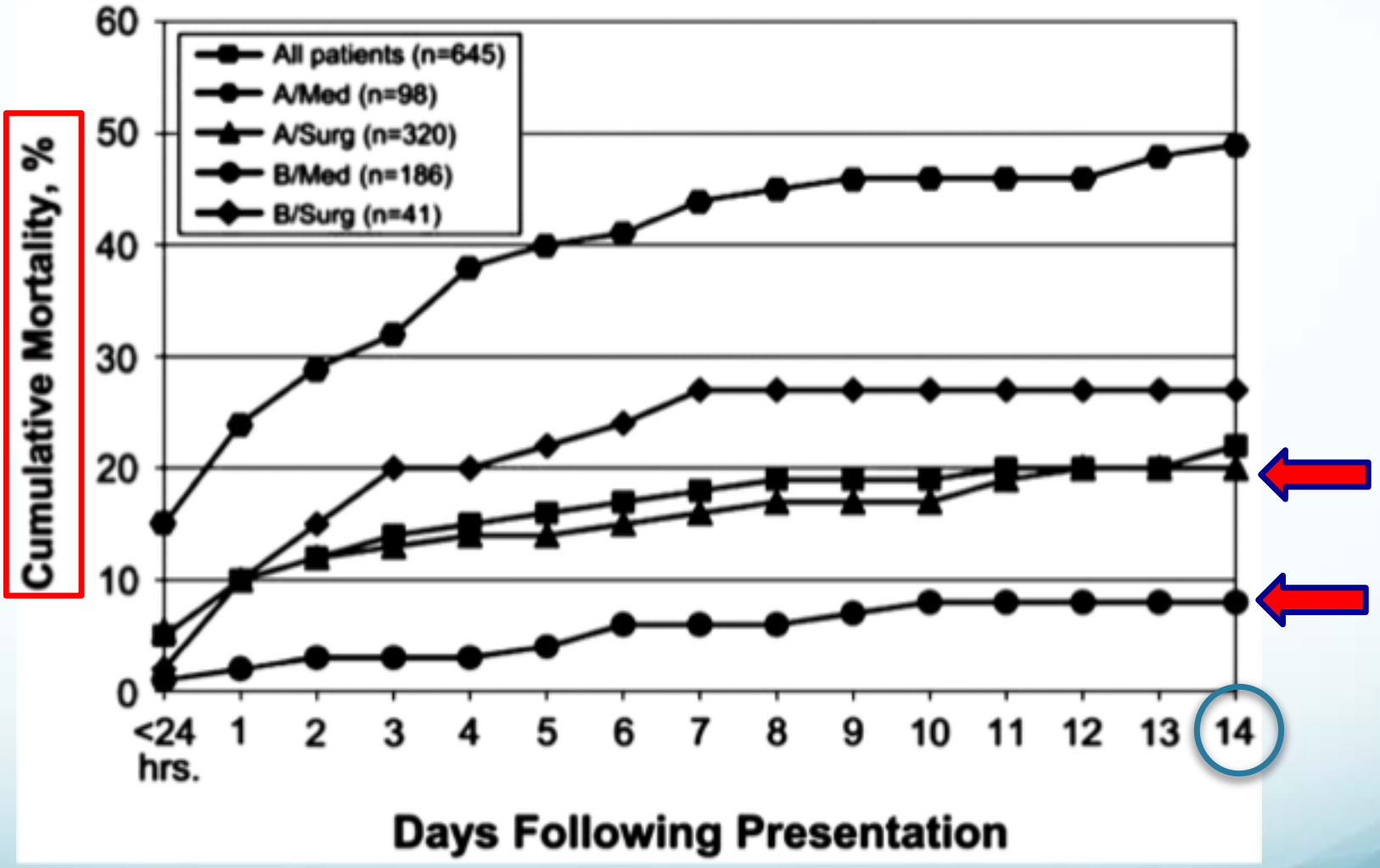
- None

Type B Aortic Dissection (TBAD)





Dominic et al. Ann Cardiothorac Surg. 2014 May; 3(3): 278–284.



Tsai, et al. Eur J Vasc Endovasc Surg (2009) 37, 149e159

INSTEAD XL

Aortic Morphology at 5 Years

	OMT	OMT+TEVAR	*P* Value
FL thrombosis	11/50 (22.0%)	48/53 (90.6%)	<0.0001
Partial FL/no FL thrombosis	39/50 (78.0%)	5/53 (9.4%)	<0.0001
Remodeling of thoracic aorta*	5/50 (10.0%)	42/53 (79.2%)	<0.0001
Critical expansion of thoracic aorta†	33/50 (66.0%)	11/53 (20.8%)	<0.0001

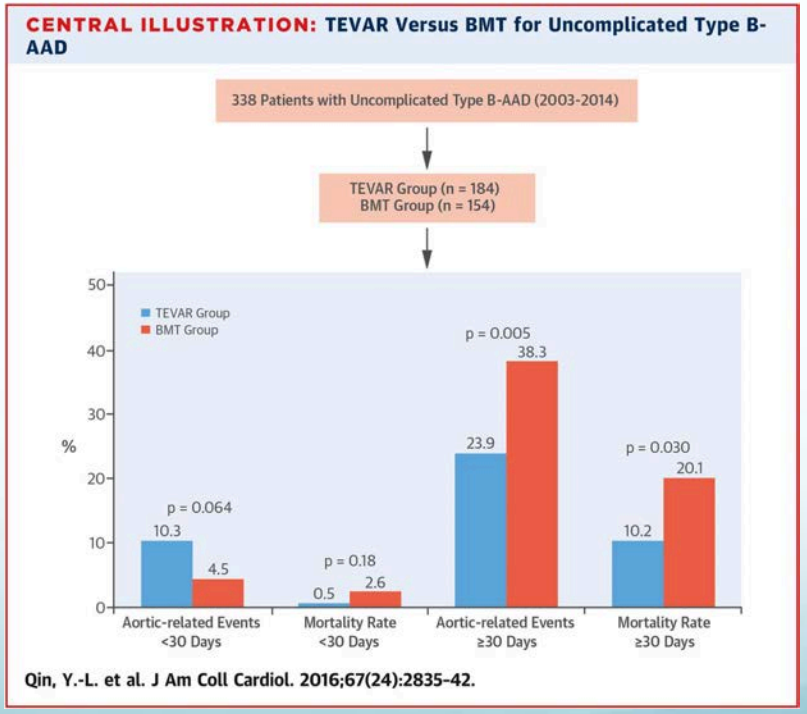
FL indicates false lumen; OMT, optimal medical treatment; and TEVAR, thoracic endovascular aortic repair.

* Based on aortic morphology as assessed vs baseline.

† Occurring within long-term follow-up.

Timing

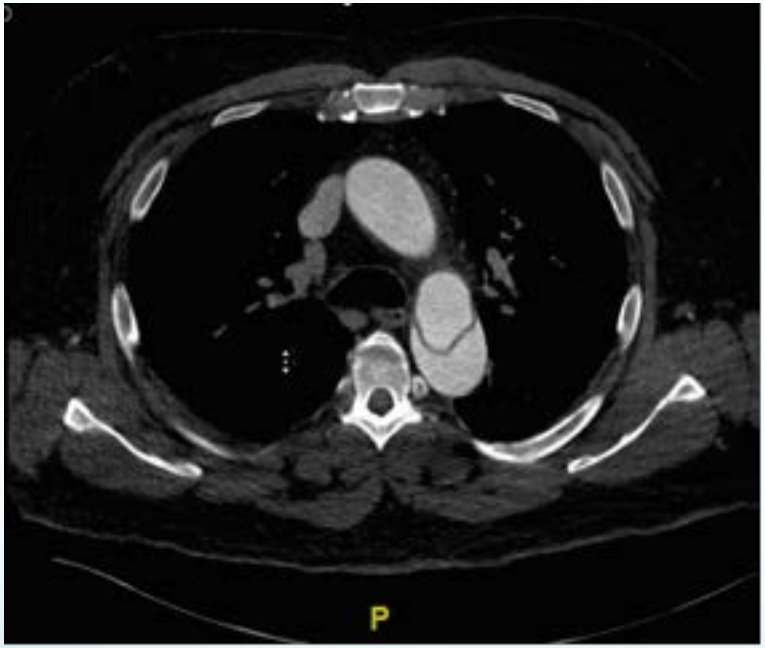
- Most publications suggest
  - **15-90 days**
  - **For non-complicated TBAD**

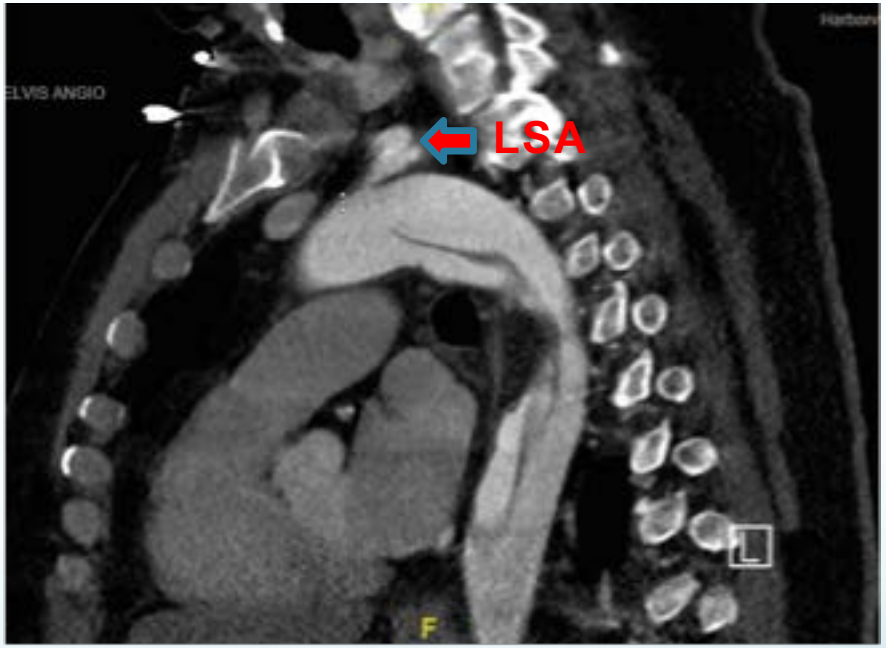


Case Presentation

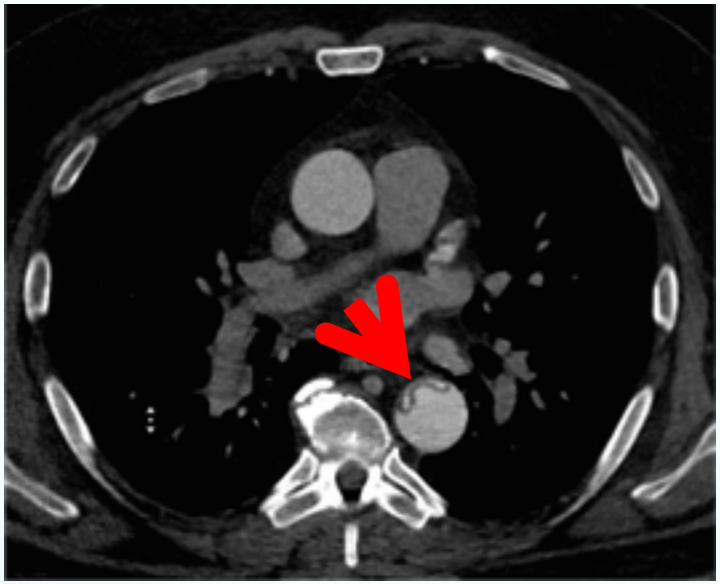
- 49 yo M with PMH of cocaine abuse, EtOH abuse, MI
- Presented with acute chest pain, hypertension with systolic blood pressure 160s
- EKG and cardiac enzymes: no MI
- Obese, + abdominal tenderness
- LLE cool and pulseless, + Doppler signals

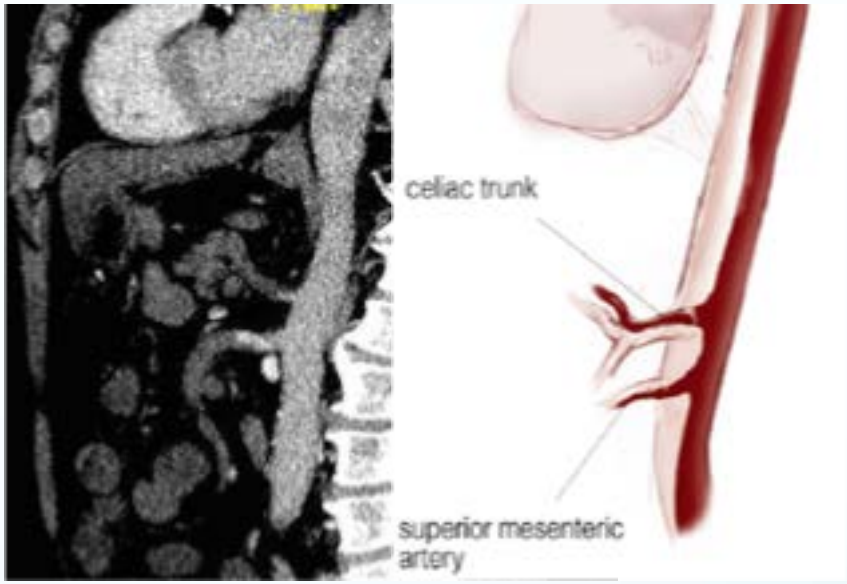
Case Presentation





Case Presentation

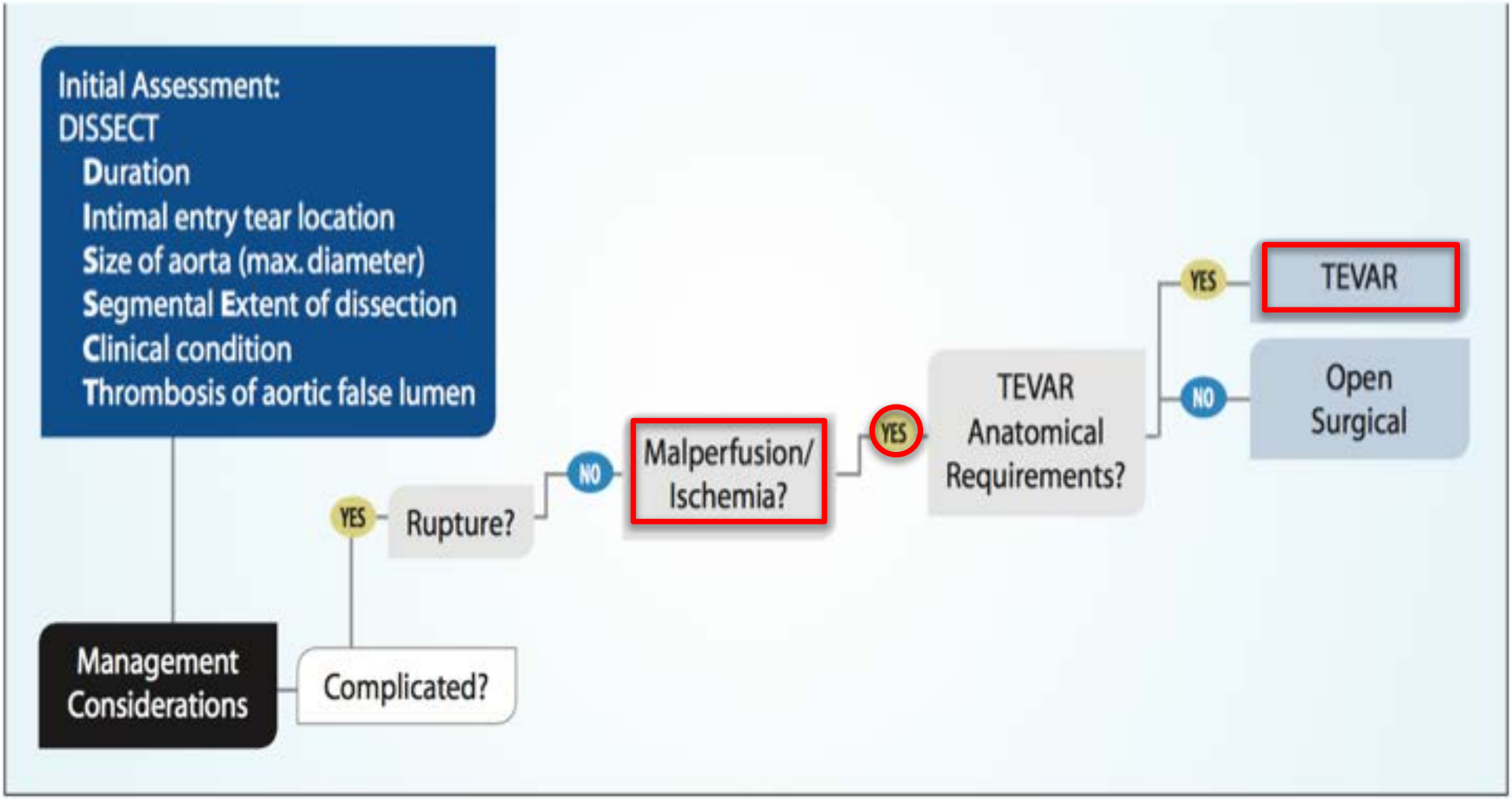




WBC: 15

Lactate: 5.1

Management



Dake M. ENDOVASCULAR TODAY NOVEMBER 2014 ; 42-52.

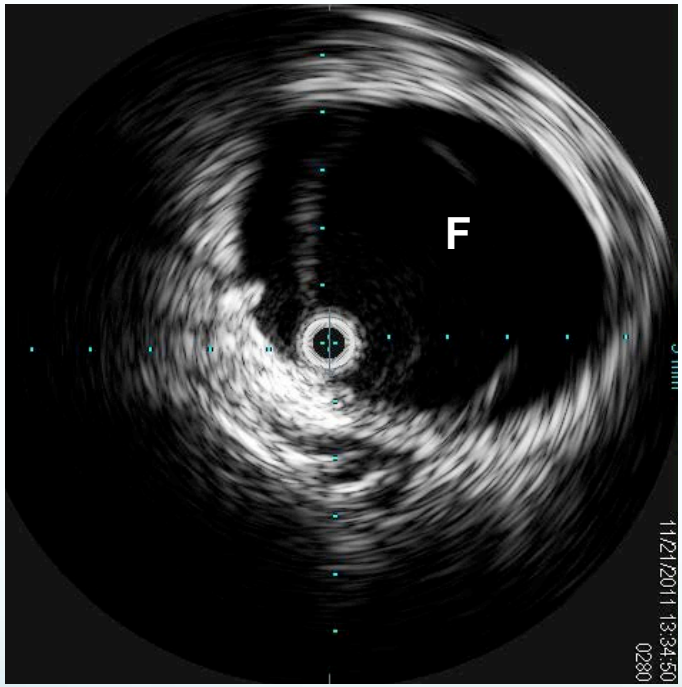
Indications for Emergent Surgery

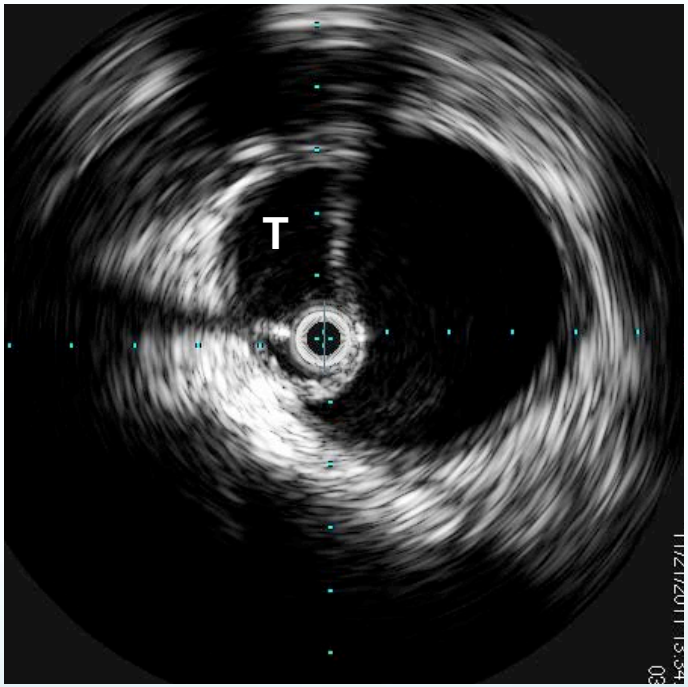
- Complicated
  - Rupture
  - Visceral ischemia
  - Limb threatening ischemia

- Up to **30%** of patients develop some degree of malperfusion or ischemia

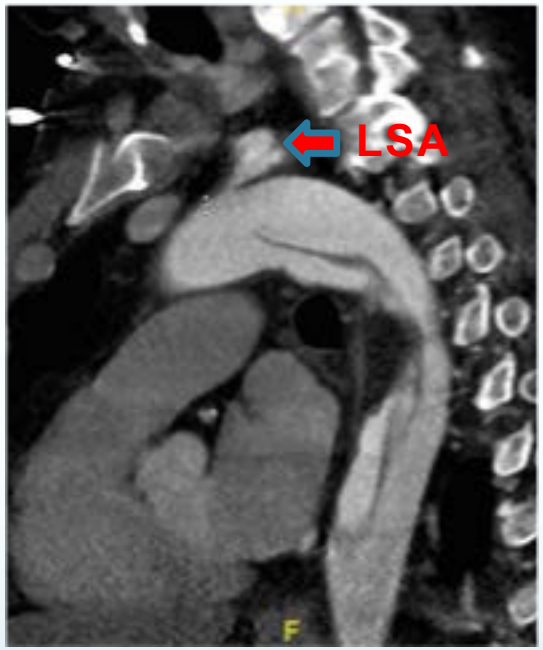
Access

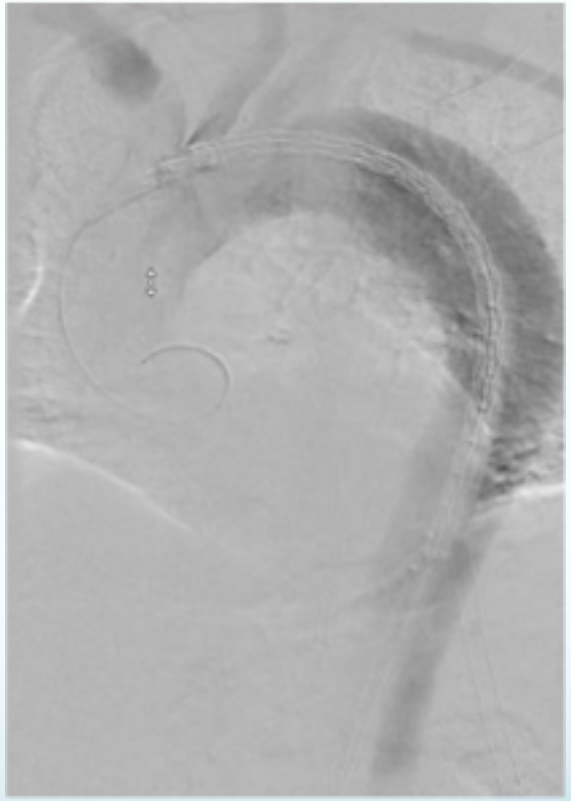
IVUS



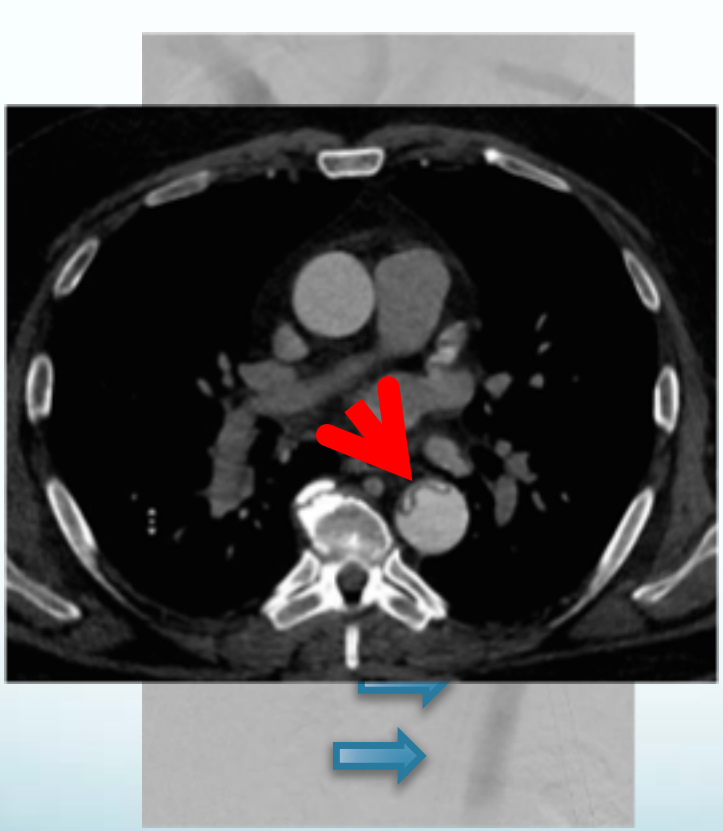


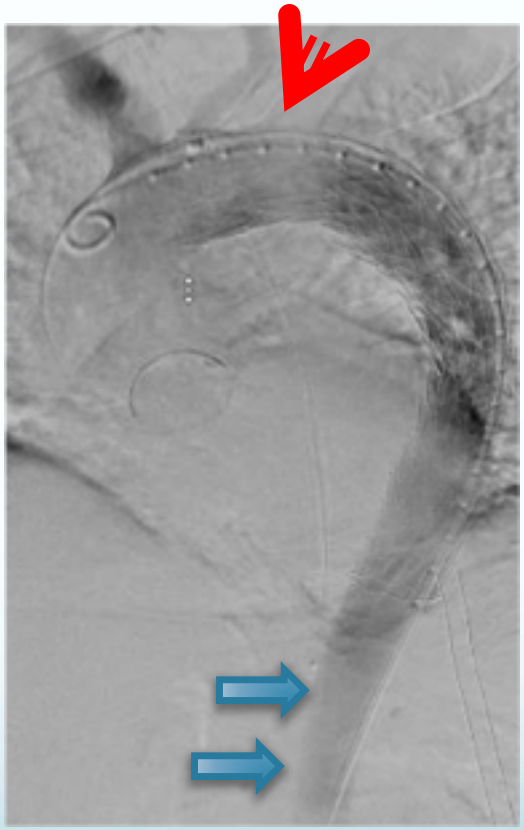
TEVAR





Do we need to revascularize LSA?





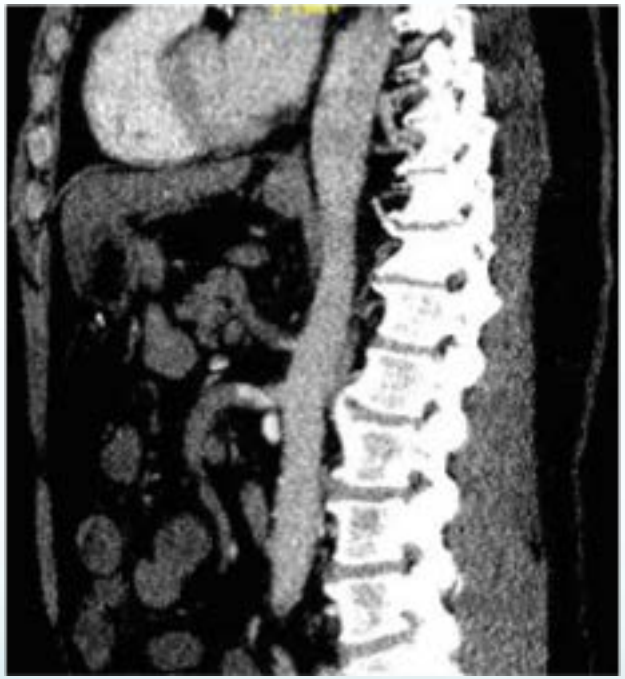
SVS PRACTICE GUIDELINES

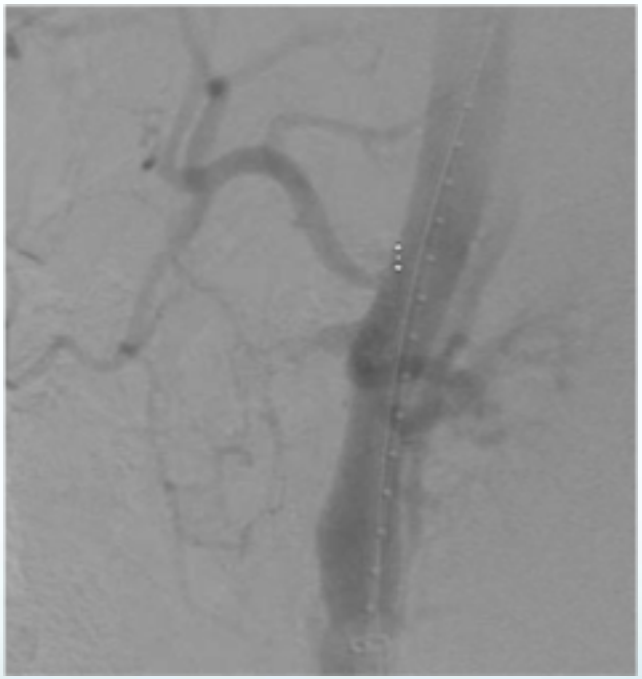
The Society for Vascular Surgery Practice Guidelines: Management of the left subclavian artery with thoracic endovascular aortic repair

Jon S. Matsumura, MD,[a] W. Anthony Lee, MD,[b] R. Scott Mitchell, MD,[c] Mark A. Farber, MD,[d] Mohammad Hassan Murad, MD, MPH,[e] Alan B. Lumsden, MD,[f] Roy K. Greenberg, MD,[g] Hazim J. Safi, MD,[h] and Ronald M. Fairman, MD,[i] for the Society for Vascular Surgery, *Gainesville, Fla; Palo Alto, Calif; Chapel Hill, NC; Rochester, Minn; Houston, Tex; Cleveland, Ohio; and Philadelphia, Pa*

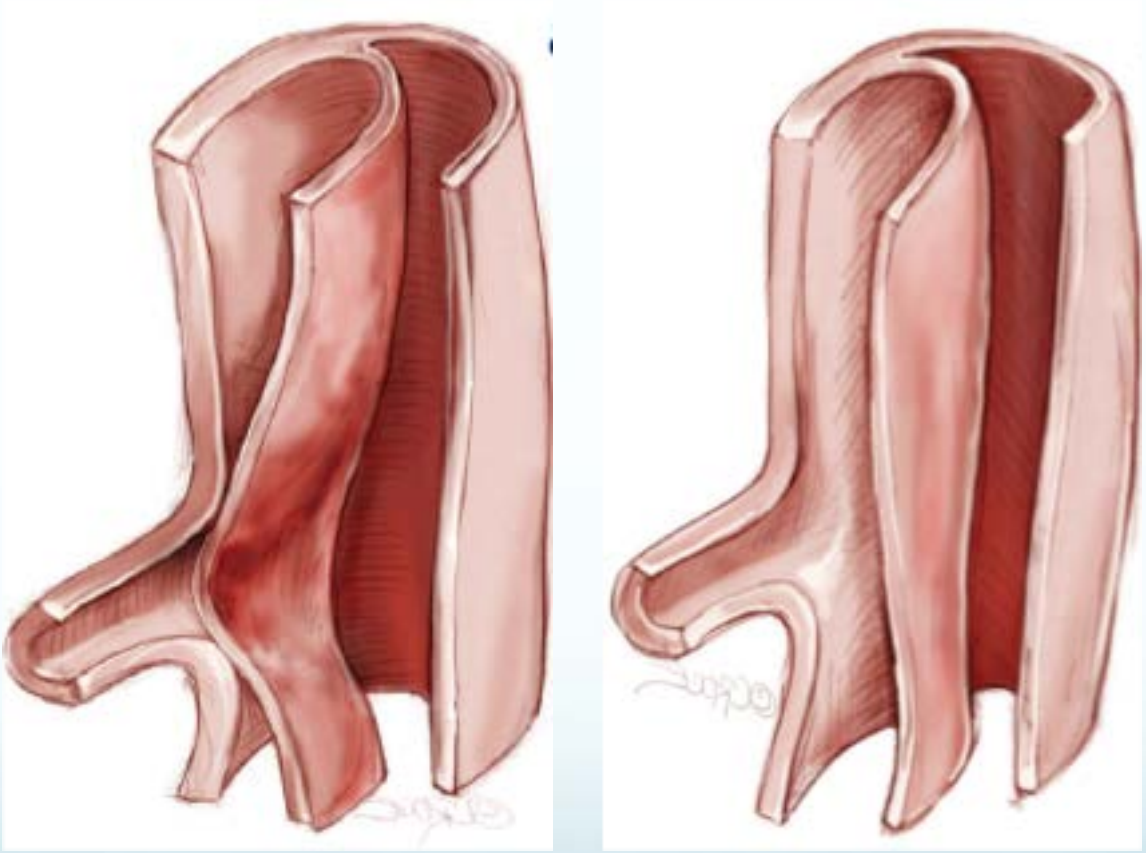
The Society for Vascular Surgery pursued development of clinical practice guidelines for the management of the left subclavian artery with thoracic endovascular aortic repair (TEVAR). In formulating clinical practice guidelines, the society selected a panel of experts and conducted a systematic review and meta-analysis of the literature. They used the grading of recommendations assessment, development, and evaluation (GRADE) method to develop and present their recommendations. The overall quality of evidence was very low. The committee issued three recommendations. *Recommendation 1:* In patients who need elective TEVAR where achievement of a proximal seal necessitates coverage of the left subclavian artery, we suggest routine preoperative revascularization, despite the very low-quality evidence (GRADE 2, level C). *Recommendation 2:* In selected patients who have an anatomy that compromises perfusion to critical organs, routine preoperative LSA revascularization is strongly recommended, despite the very low-quality evidence (GRADE 1, level C). *Recommendation 3:* In patients who need urgent TEVAR for life-threatening acute aortic syndromes where achievement of a proximal seal necessitates coverage of the left subclavian artery, we suggest that revascularization should be individualized and addressed expectantly on the basis of anatomy, urgency, and availability of surgical expertise (GRADE 2, level C). (J Vasc Surg 2009;50:1155-8.)

Branch Vessel Occlusions

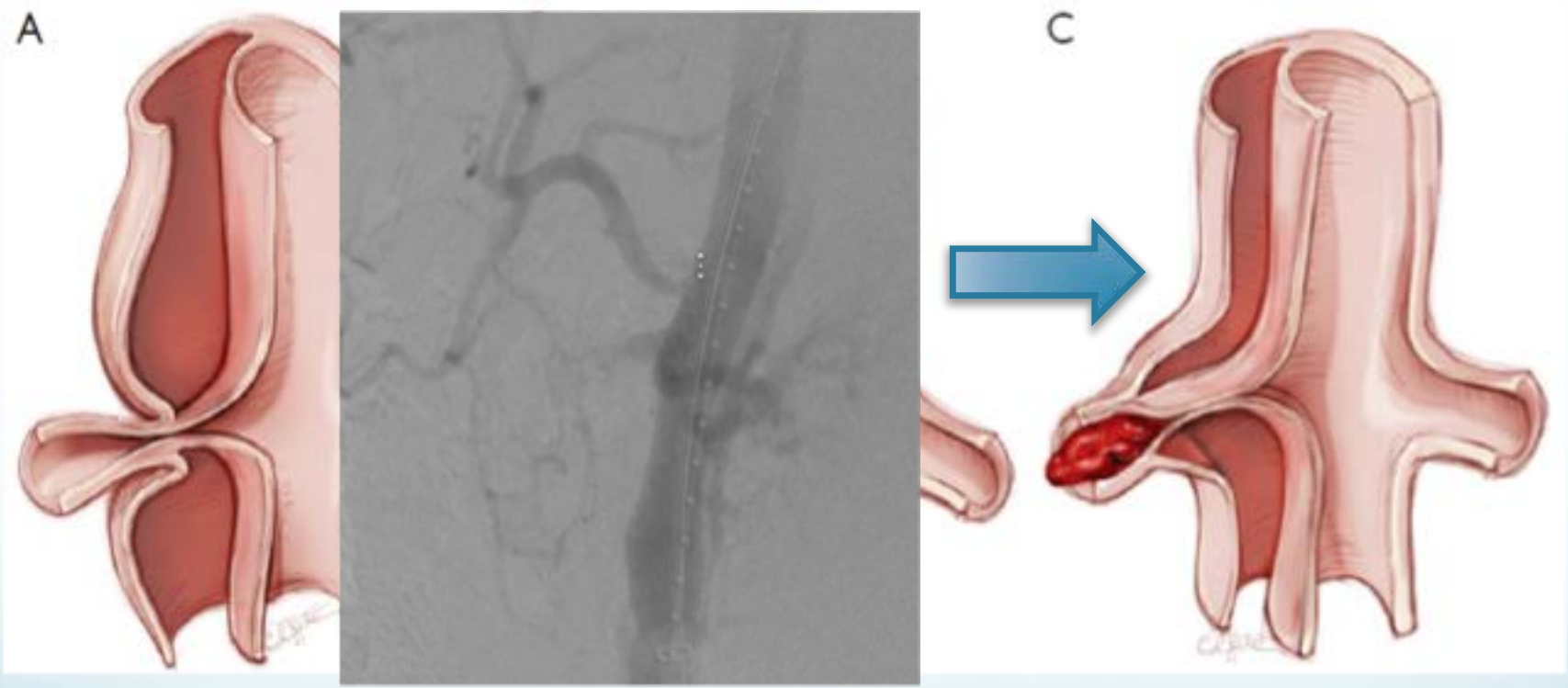




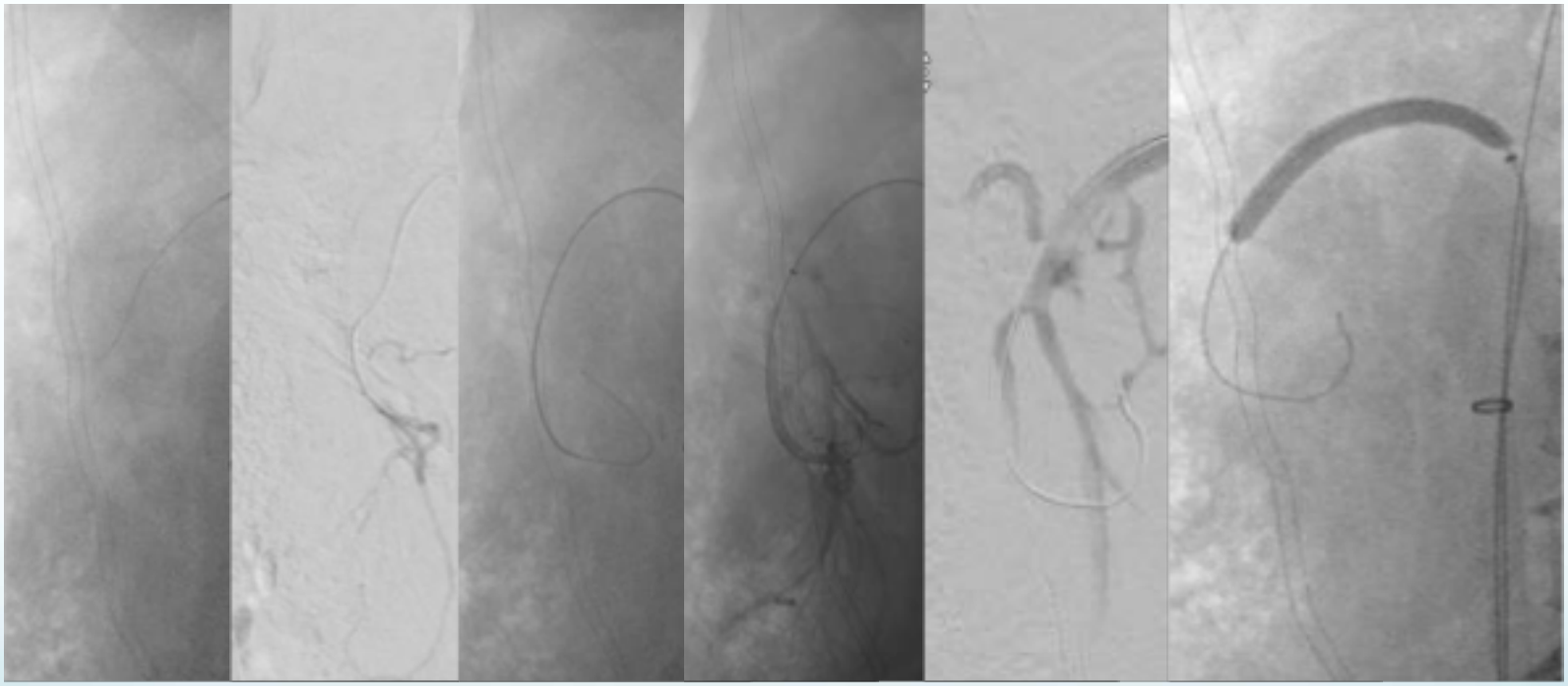
Dynamic Occlusion

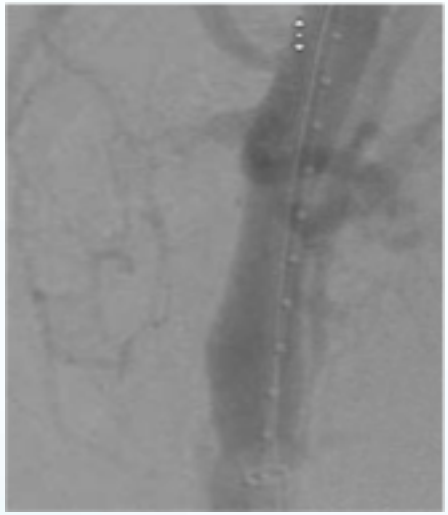


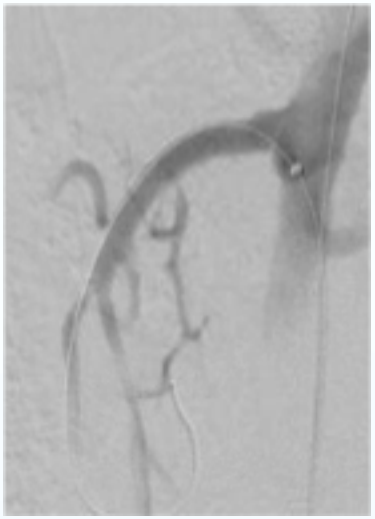
Static Occlusion



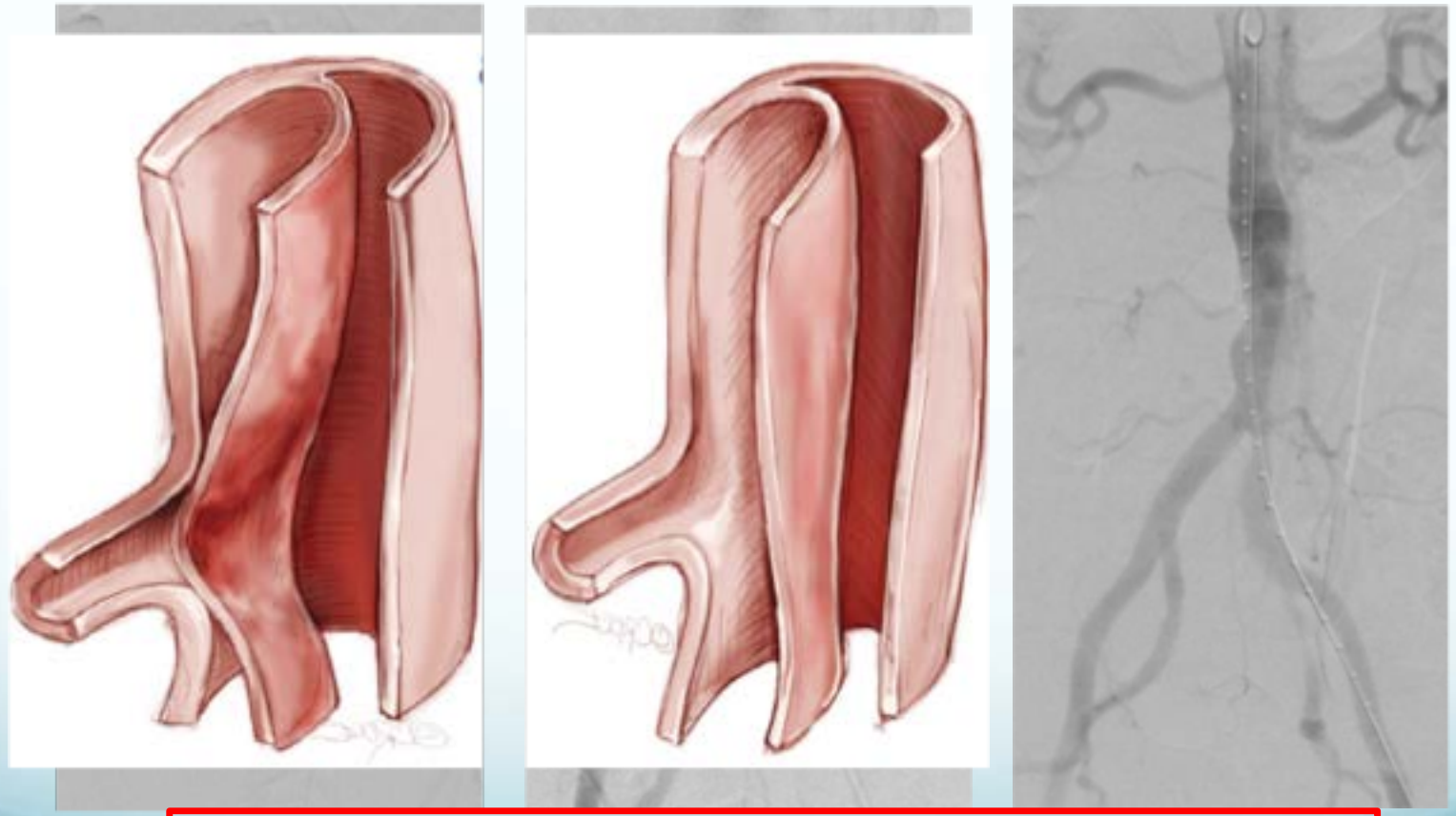
SMA Stenting





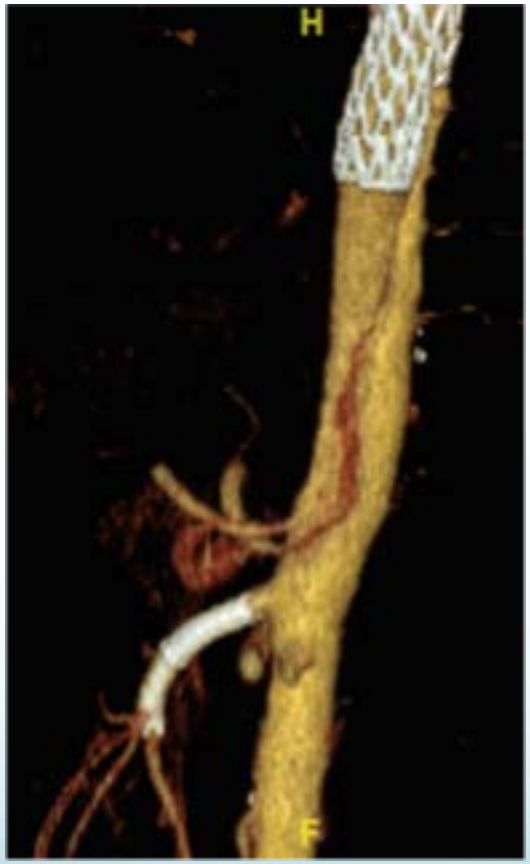


Satisfied?



Angio before and after TEVAR

Follow-up CTA



Summary

- Indications for emergent intervention
  - Complicated acute TBAD
- Preoperative planning
  - CTA
  - Supplies and equipment
  - Position and access
    - Prepare for arm (R) access and open surgery if needed
- Confirm true lumen: IVUS
- TEVAR first
  - LSA can be covered if necessary
- Branch artery stenting: if needed
- Antiplatelet: Clopidogrel for 6 weeks, then ASA
- Continue to follow periodically


Thank you