Peripheral arterial disease and TAVR

Roadblock management

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Disclosure of Relevant Financial Relationships

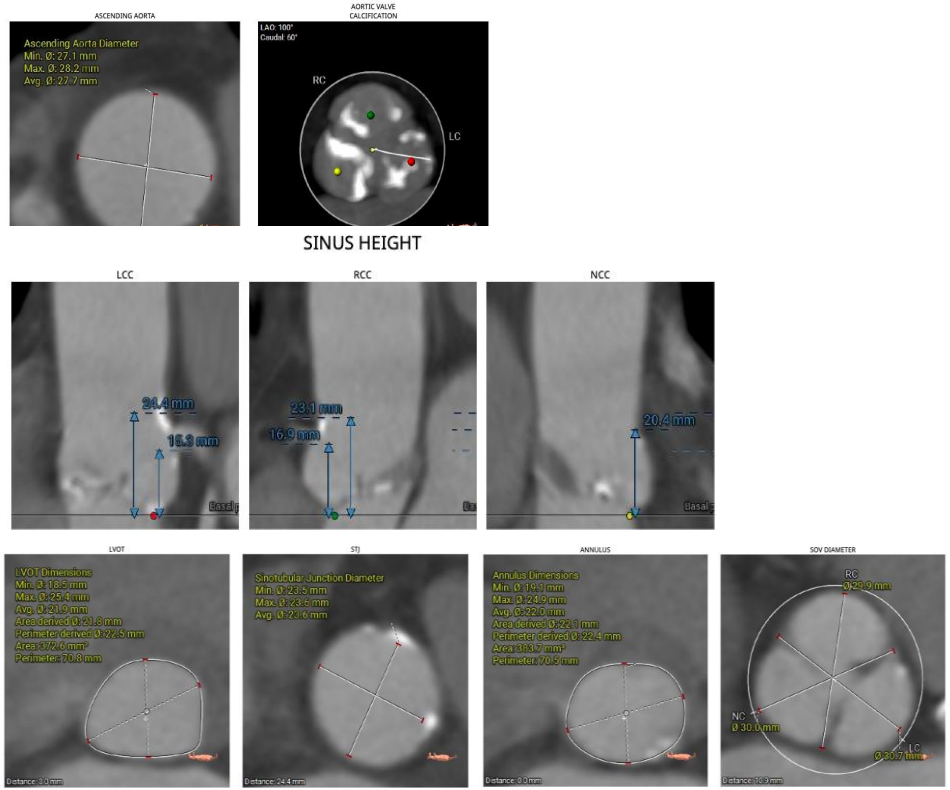
I, Kevin Tijerina Flores DO NOT have any financial relationships to disclose.

Case Presentation

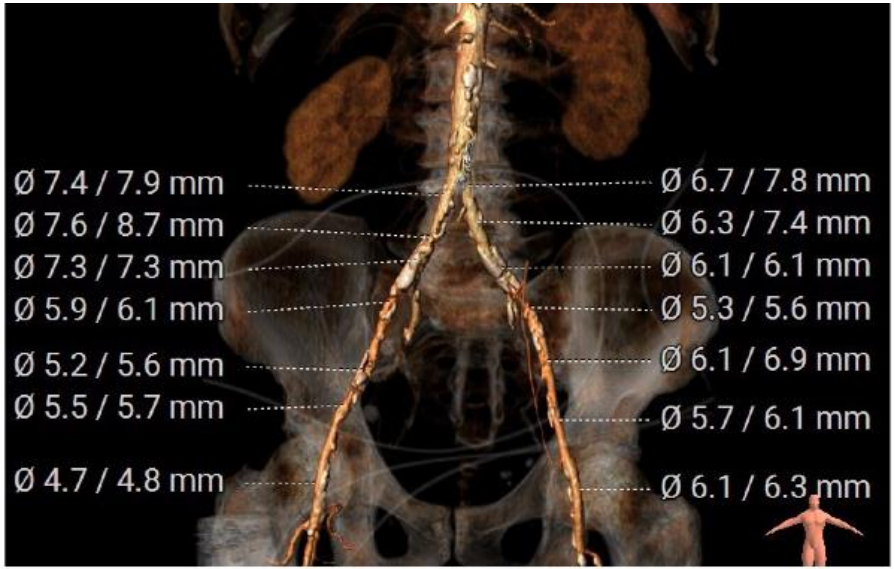
- Male 73 yr. Retired worker, active and independent living
- Past smoker for 50 years (50 paq/year).
- HTN 10 yrs (amlodipine/valsartan/HCZ)
- Chronic bronquitis/COPD
- No other relevant diseases or cardiovascular history
- Functional class deterioration (SoB)

- Echocardiogram:
  - LVDD 36, LVSD 26, EF 68%, no regional wall motion abnormalities. No mitral regurgitation.
  - Aortic valve: severe AS, Max V 4.3 m/s, Mean gradient 41 mmHg, AoVA 0.8 (iAoVA 0.4). AR ++/++++. SV 35 ml
- Left and right heart catheterization:
  - Normal epicardial coronary arteries
  - LSVP 155, LVEDP 18, peak-to-peak gradient 60 mmHg. Ventriculography no wall motion abnormalities. Mild MR +/++++
  - RHC: RAP 5, PA 34/13 (22), PW 15, RV 34/2 (12), TPR 3.73 WU

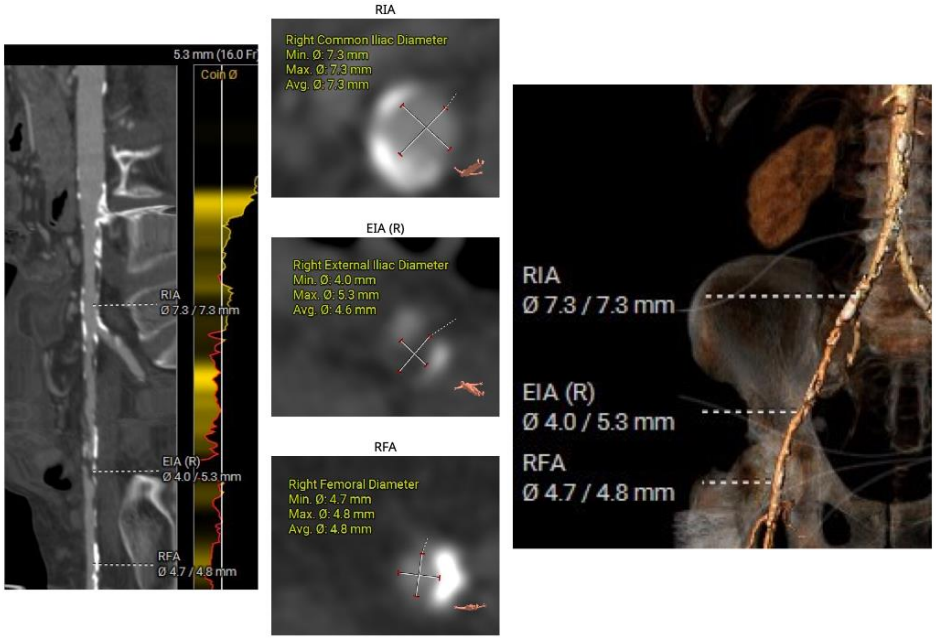
Case Presentation – TAVR protocol



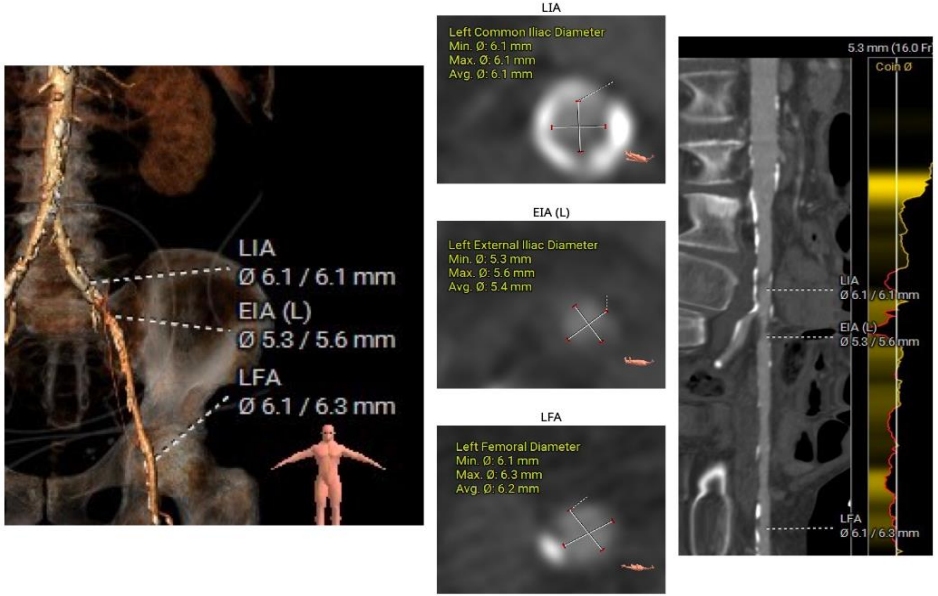
Peripheral arterial disease

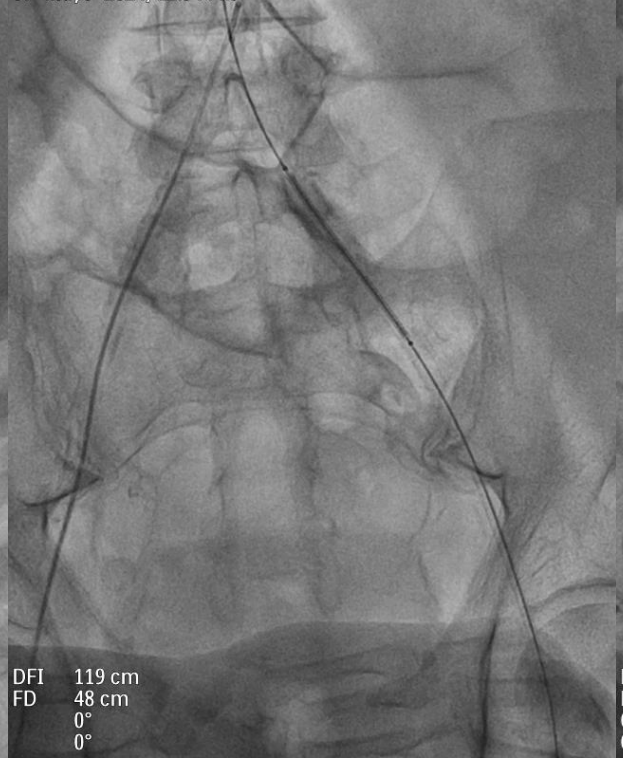


Roadblock #1: Right femoral access

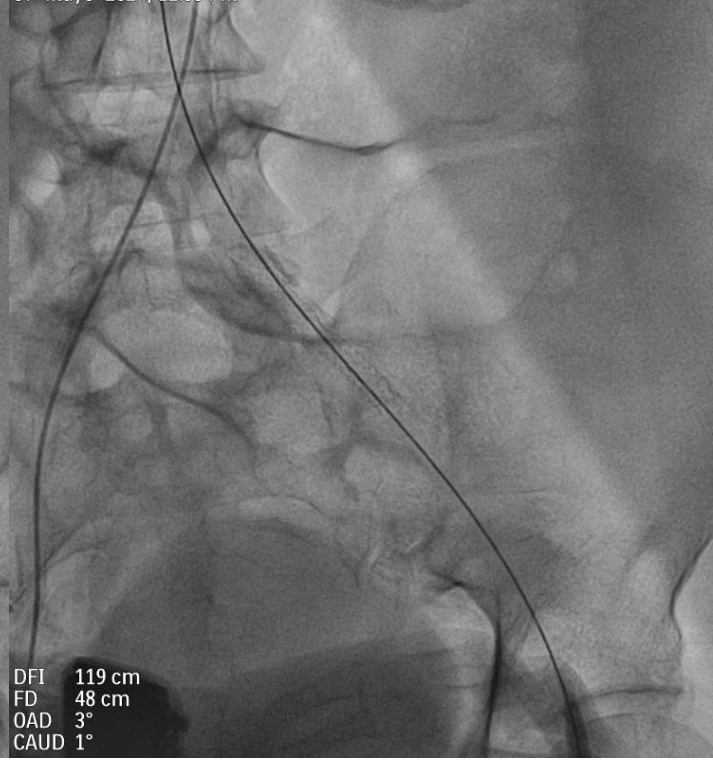


Roadblock #2: Left femoral access



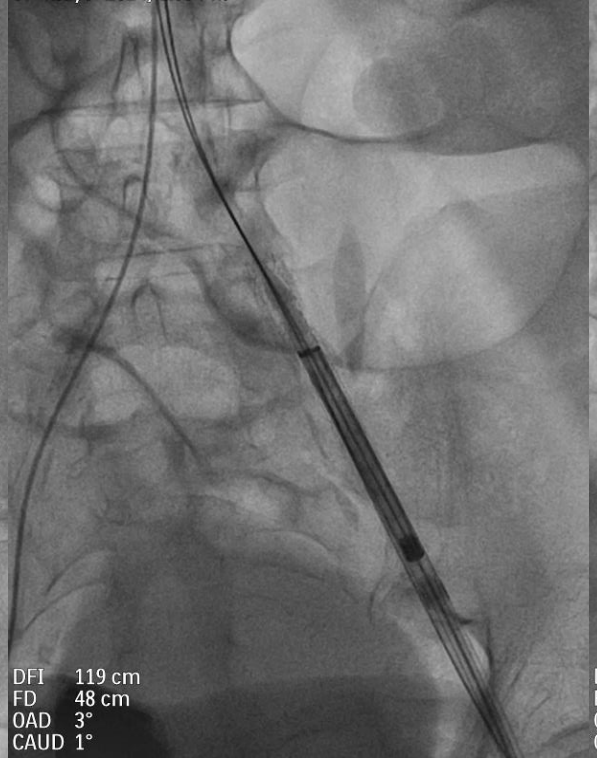


LIIA angioplasty with DES 7.0 x 57 mm

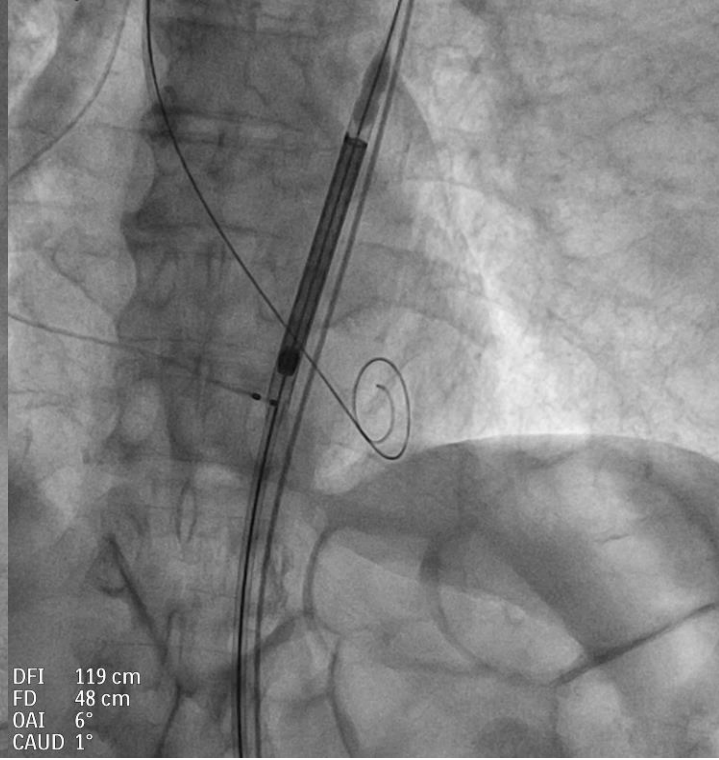


Delivery system would not cross

Post dilatation with SC balloon 8.0 x 60 mm

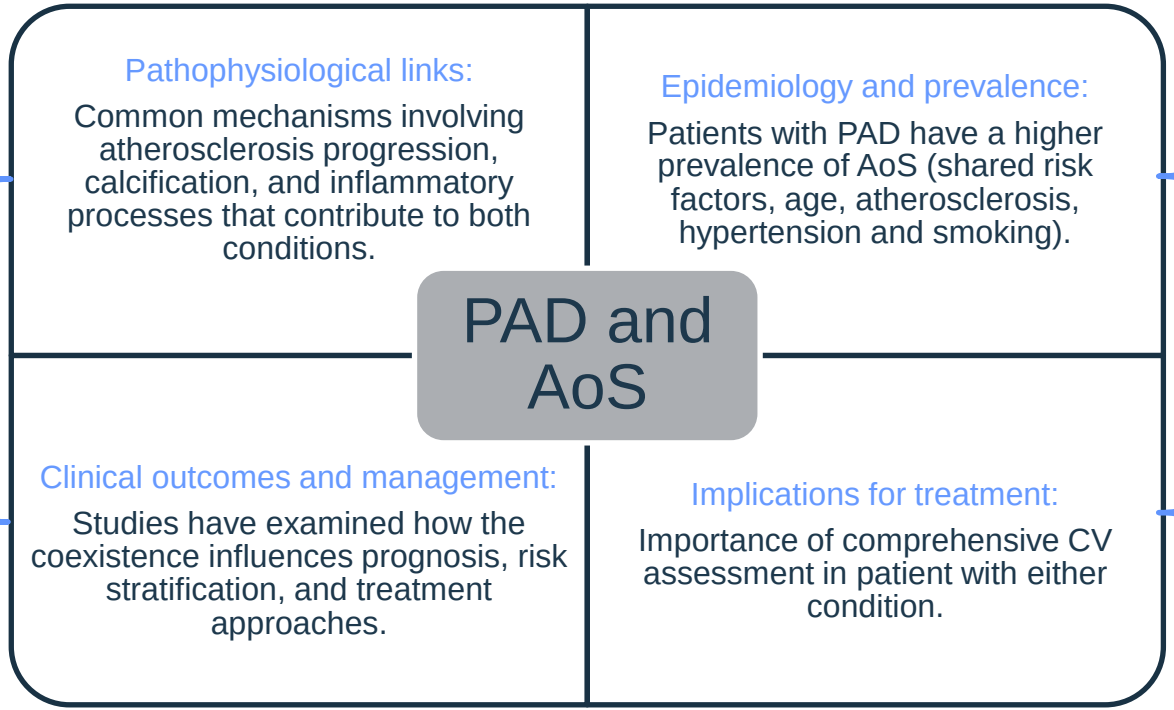


Delivery system advance
14 Fr introducer
SEV No. 26
0.035 extrastiff wire



Peripheral arterial disease and TAVR

Studies on the coexistence of PAD and AoS



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Peripheral arterial disease and TAVR

“Compared with patients without PAD, patients with PAD undergoing TF-TAVR had a higher incidence of death, readmission and bleeding during 1-year follow-up.”

“Presence of PAD was significantly a/w increased rates of major vascular complications as well as immediate and late mortality in patients undergoing TAVR.”

“Combined TAVR and peripheral vascular interventions is a/w an increased risk of adverse events, though outcomes are better compared w alternative-access TAVR using a non-TF approach”

“PAD was a/w increased mortality in severe calcific AS. Importantly, this excess mortality among patients w/PAD was not affected by the simultaneous presence of CAD.”

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Conclusion/Summary/Take-home Message

- “Peripheral vascular intervention may be used to facilitate TF access or as a bailout for vascular complications during TAVR”
- There are no RCTs from Latin America or Mexico specifically exploring the interaction of PAD and AoS, or comparing outcomes of AoS treatments (e.g. TAVR or SVR) in patients with vs without PAD in a Latin American cohort.
- No observational cohorts in Mexico or much of Latin America that simultaneously measure PAD and AoS (severe/symptomatic) to study their coexistence and how that affects prognosis, treatment access and other outcomes.

Bansal. et al.JACC Cardiovascular Interventions; 2021 14:23:2572-2580