

MCS-Supported Left Main Bifurcation PCI and Transfemoral TAVR in an Octagenarian Patient

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AT THE FOREFRONT
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Disclosure of Relevant Financial Relationships

I, Dhruvil Patel, DO NOT have any financial relationships to disclose.

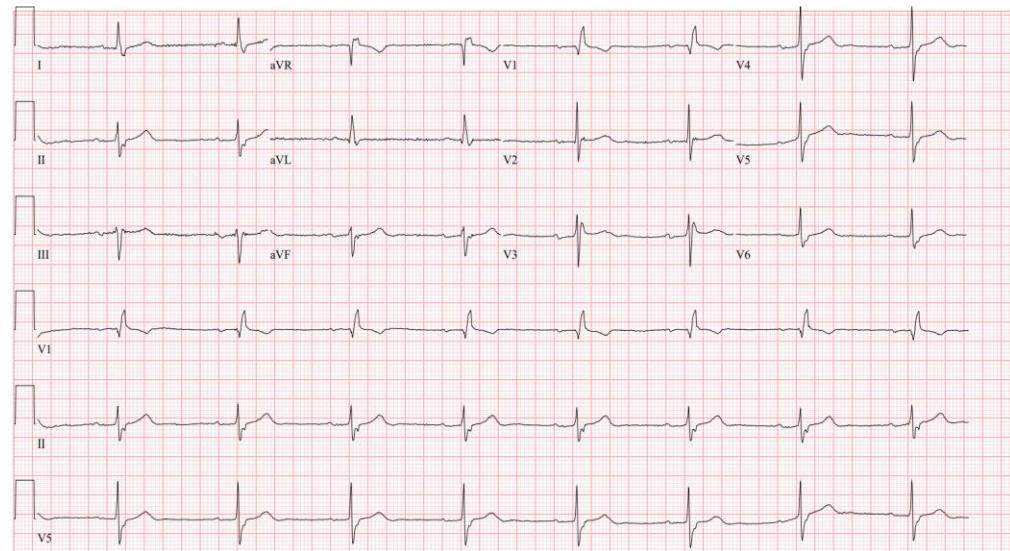
Background

- Elderly patients with concomitant left main disease and severe aortic stenosis represent a high-risk patient population for MACCE/CV death
- There is significant variability of treatment patterns for this unique patient cohort, with variables affecting discussions including:
 - Frailty
 - Comorbid burden
 - Procedure time
 - Heart team expertise & resources available

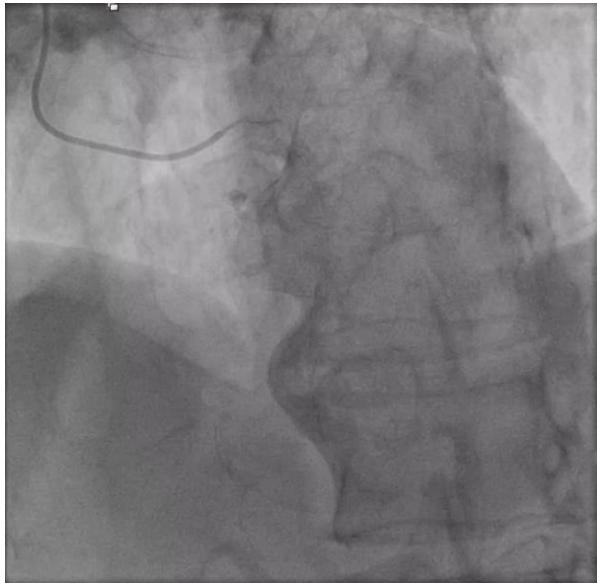
Case Presentation

- 90M with:
 - HFpEF
 - Prostate Cancer s/p XRT
 - Bladder Cancer, s/p TURBT
 - Type 2 Diabetes Mellitus c/b Peripheral Neuropathy

Presents with CCS class 2 angina and NYHA class 2 DOE symptoms



Case Presentation – Initial Workup

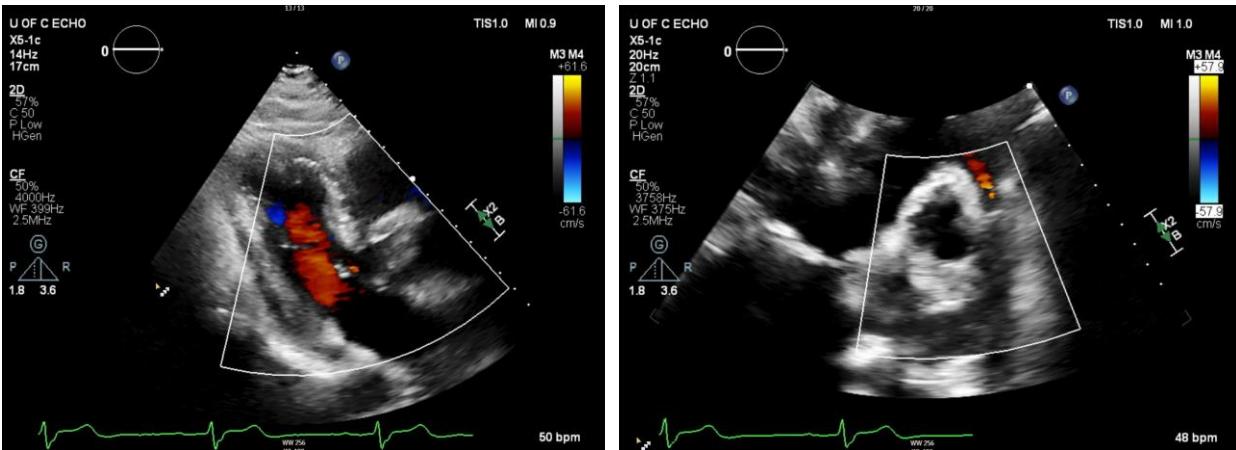


Case Presentation – Severe D3 Paradoxical LFLG Aortic Stenosis

LVEF 59%

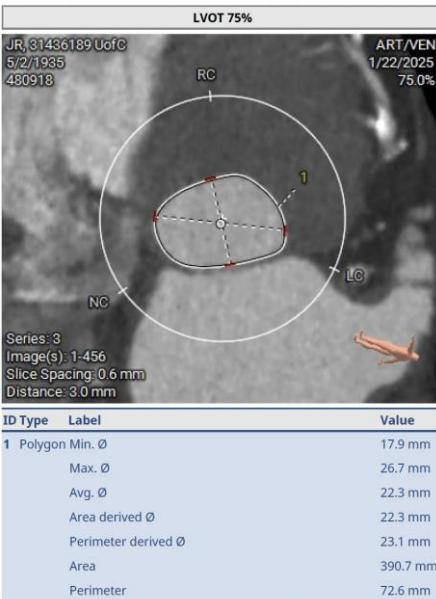
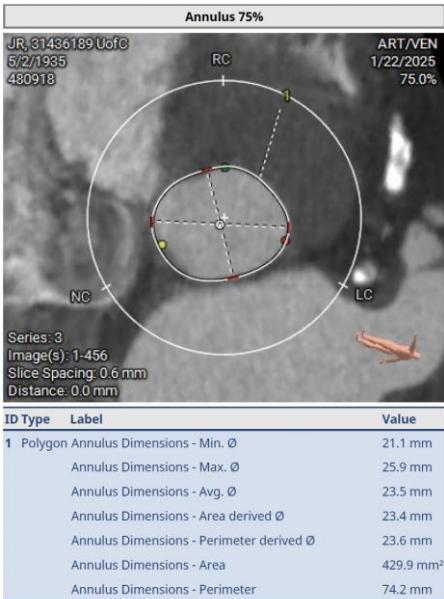
- MG_{AV} 20mmHg
- PG_{AV} 38mmHg
- $V_{max(AV)}$ 3.1 m/s
- AVA 0.78cm²
- SV_i 30mL/m²

Mild Aortic Insufficiency
No other significant valve disease

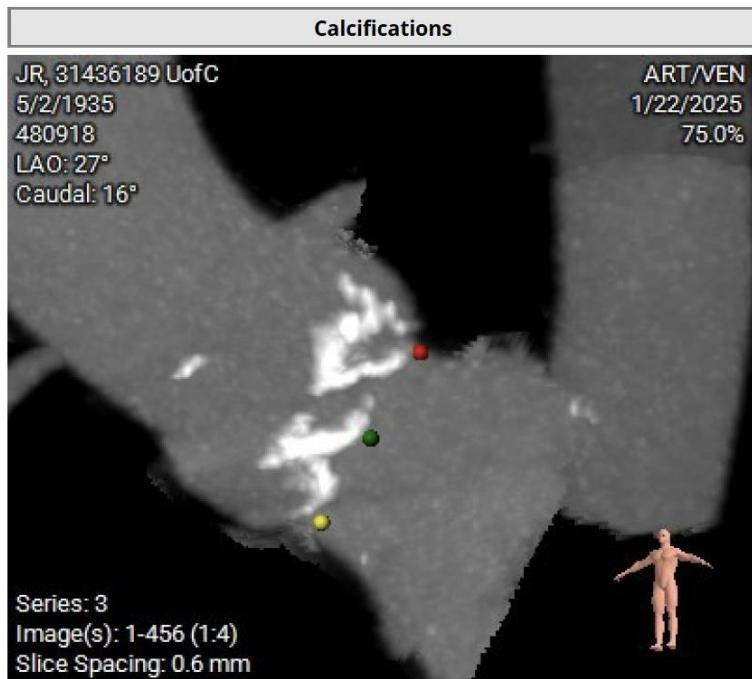
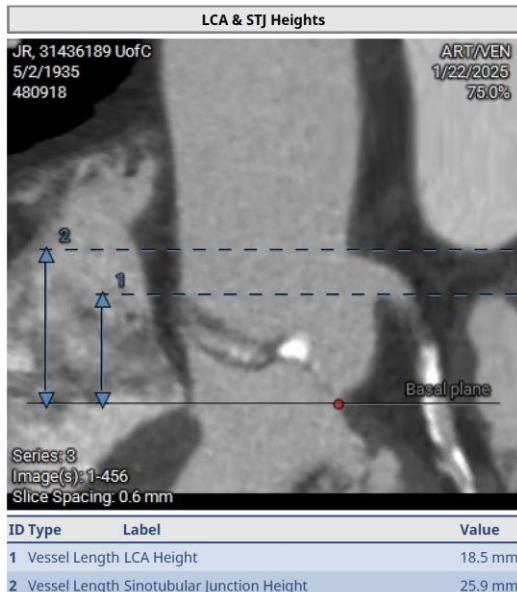


Case Presentation – Severe D3 Paradoxical LFLG Aortic Stenosis

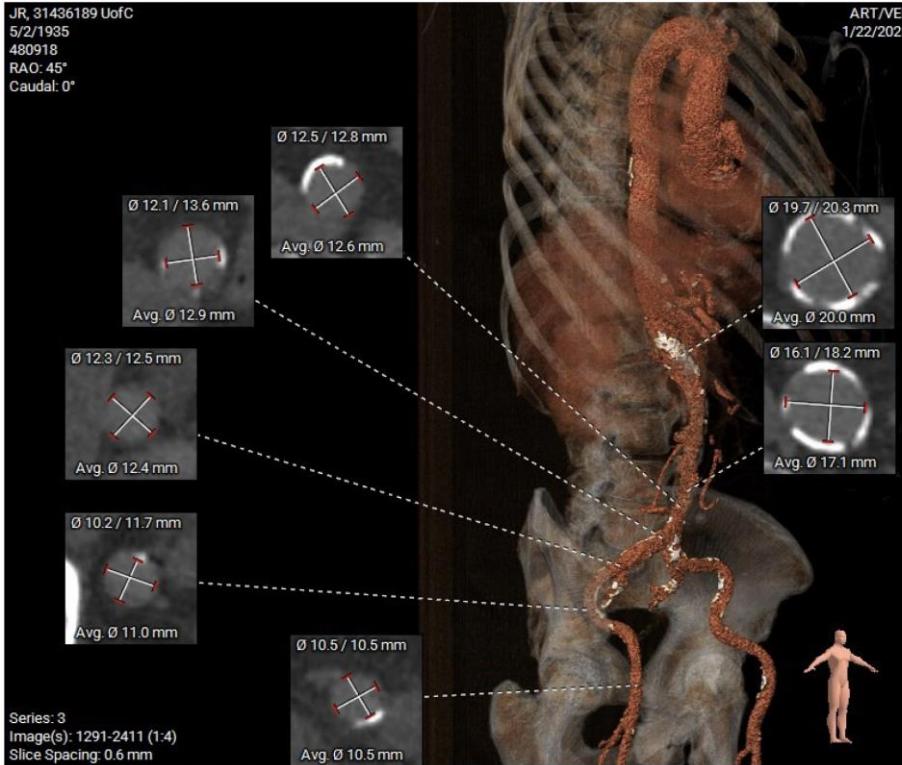
- AV Ca²⁺ Score: 2438



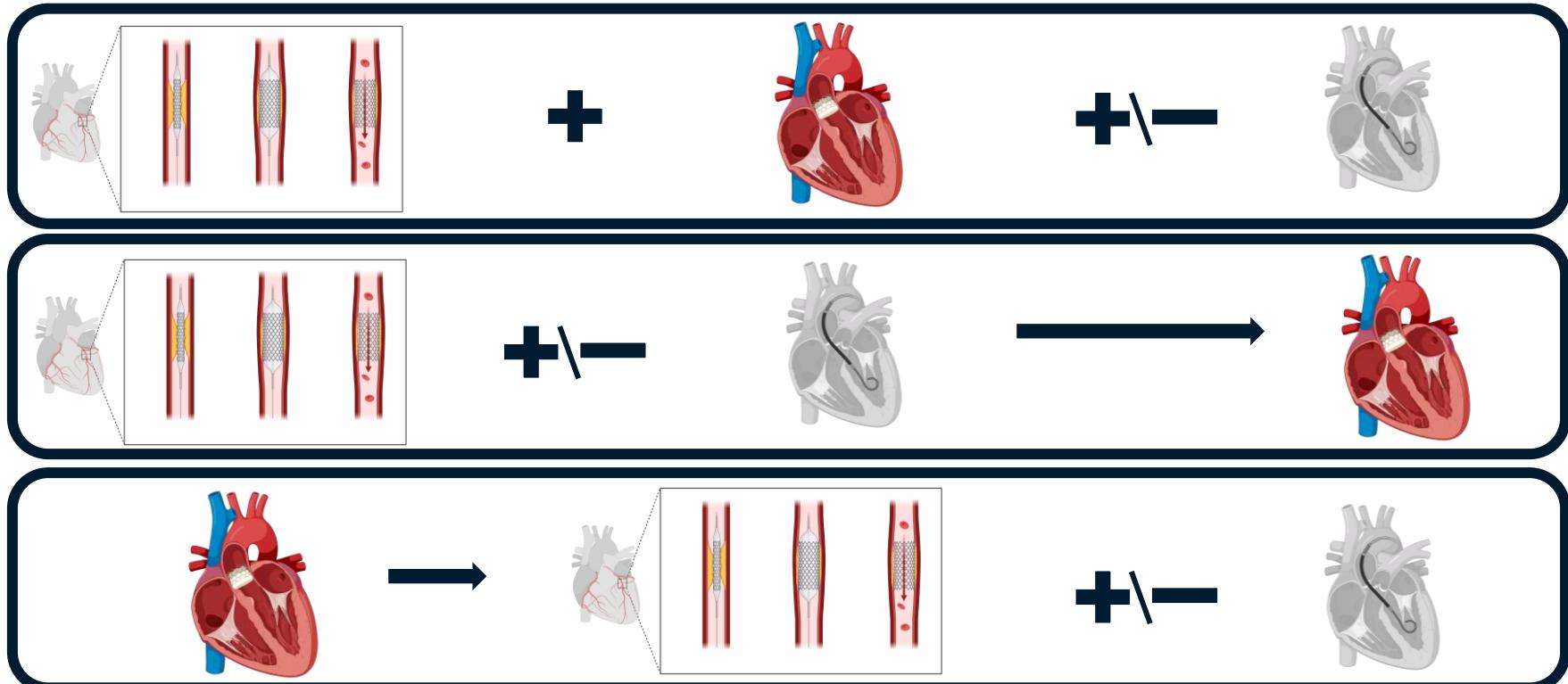
Case Presentation – Severe Paradoxical LFLG Aortic Stenosis



Femoral Access Site Appears Safe to Access

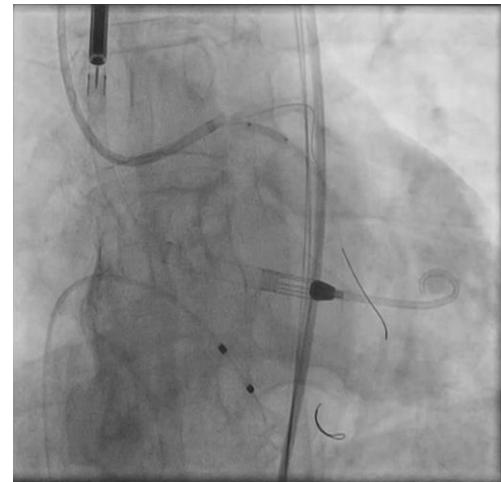
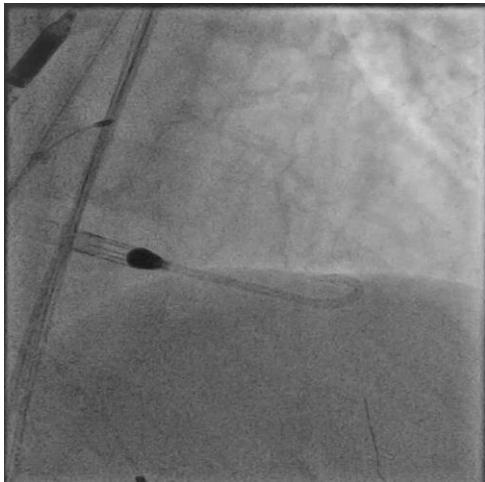


Planning An Approach?



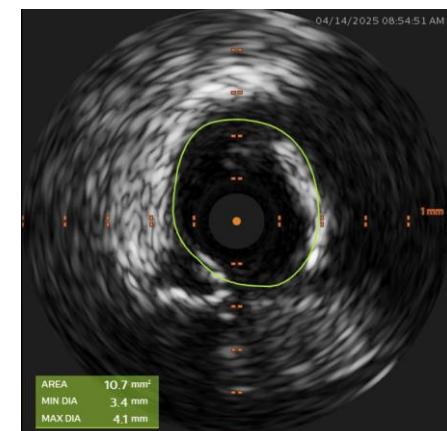
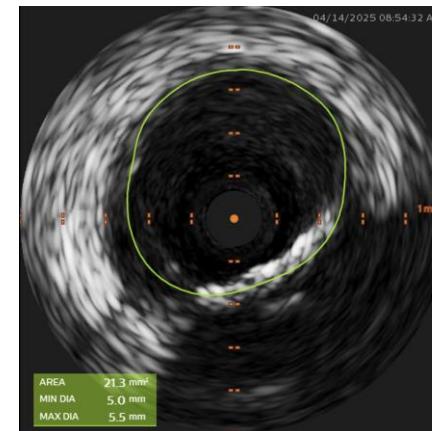
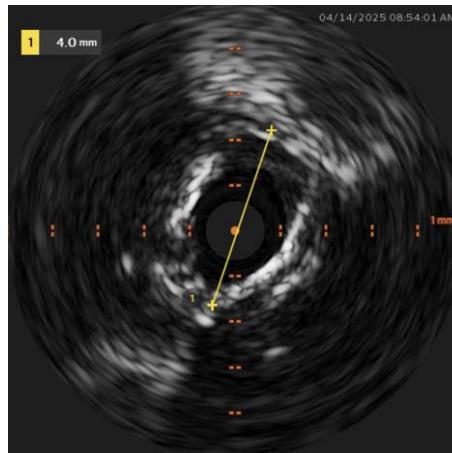
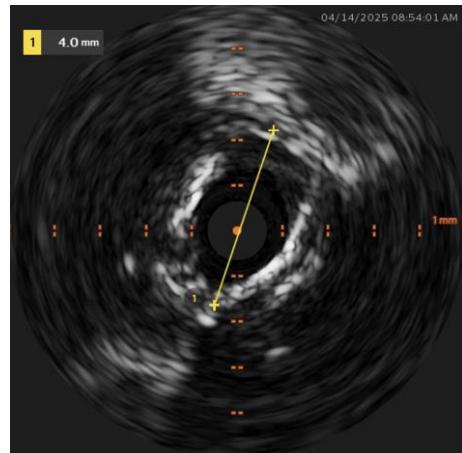
Impella Supported LM PCI

- Impella-CP placement
- dLM-pLAD rotational atherectomy
- oLCX IVL with Shockwave C2+ (120 pulses delivered)



Per-PCI IVUS

- Prior to intervention, IVUS demonstrates proximal calcifications

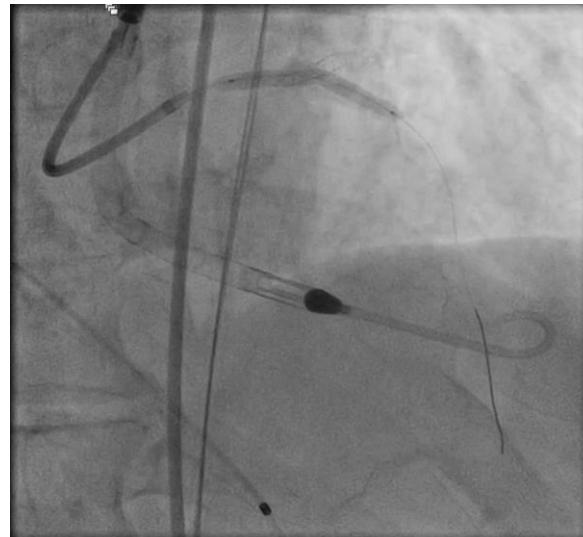


Impella Supported LM PCI

DK Crush 3.0 mm DES in the Left Circumflex



Crush, Rewire, KBI, and LM-LAD stent with 3.0 x 30 mm DES, POT with 4.5mm balloon, Rewire, and KBI, re-POT

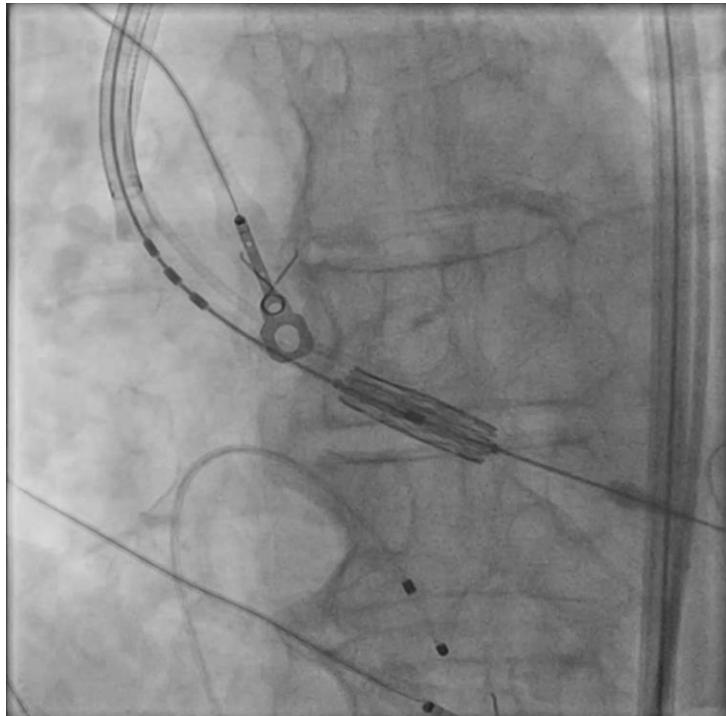


Impella Supported LM PCI

PCI of the left main was then attempted
with TIMI stage 3 Flow Observed



8 Weeks Later – Transfemoral Transcatheter Aortic Valve Replacement via R CFA



Post-Valve Deployment & Recovery

- Post-valve deployment, the patient developed HGAVB. TVP left in place
- Day #1 Post-Procedure: Dual-chamber PPM
- Day #3 Post-Procedure: Discharged home
- No readmissions

30-Day Echo:

- MG_{AV} 8 mmHg
- PG_{AV} 16.6 mmHg
- $V_{\max(\text{AV})}$ 2.3 m/sec

23 mm S3 Sapien Valve
is Well Seated with no
Peri-Valvular Leak

Considerations

At the 30-day follow-up post-TAVR, no peri-valvular leak with resolution of the patient's chest pain on exertion was achieved.

- In older, higher-risk patients, the use of a staged Impella-supported bifurcation PCI (HR-PCI) as a bridge to TAVR is proven to be safe
- Multidisciplinary surgical and interventional decision-making was vital in establishing a curated treatment path that led to success.

Thank You For Your Time & Attention

