

# Transcatheter Aortic Valve Replacement Prosthesis Selection:

*A Case of Annular and Sinotubular Junction Size Mismatch*

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# Disclosure of Relevant Financial Relationships

Within the prior 24 months, I have had a financial relationship with a company producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients:

## Nature of Financial Relationship

Grant/Research Support

Consultant Fees/Honoraria

Individual Stock(s)/Stock Options

Royalties/Patent Beneficiary

Executive Role/Ownership Interest

Other Financial Benefit

## Ineligible Company

Company Name(s)

Edwards Lifesciences

Abbott Structural Heart

Company Name(s)

Company Name(s)

Company Name(s)

Company Name(s)

# Case Background

63yoM with CAD s/p 2v CABG, prior chest radiation, chronic systolic heart failure, and severe low flow low gradient AS

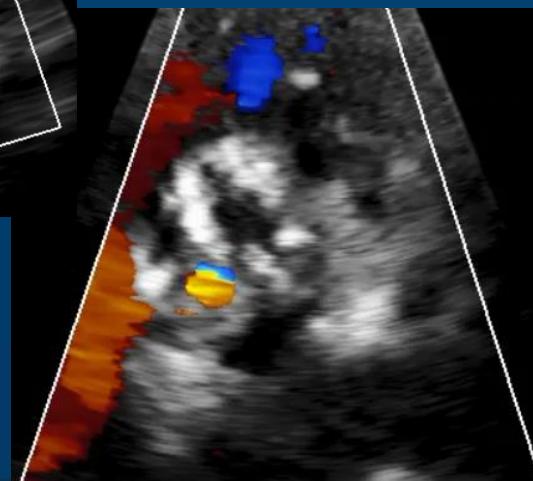
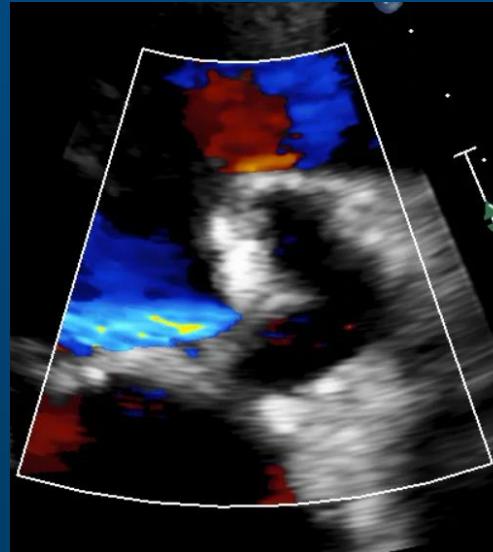
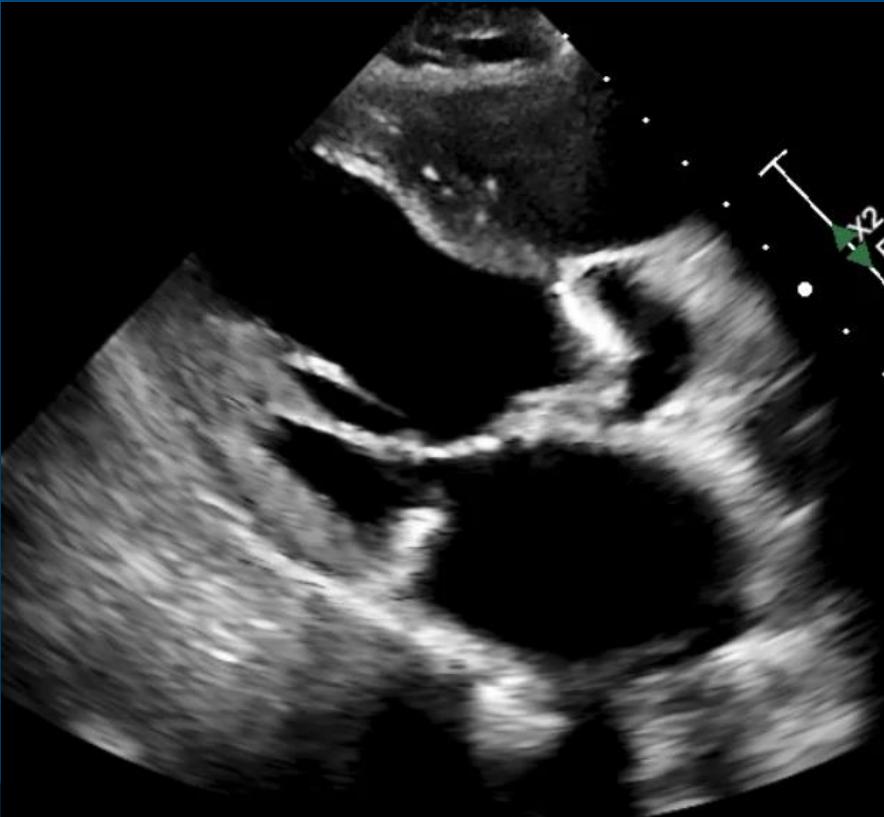
## Past Medical History

- HIV on antiretroviral tx
- Prior chest radiation – Hodgkin lymphoma
- Left chest melanoma s/p wide axillary excision
- CAD s/p 2v CABG
- Chronic systolic heart failure

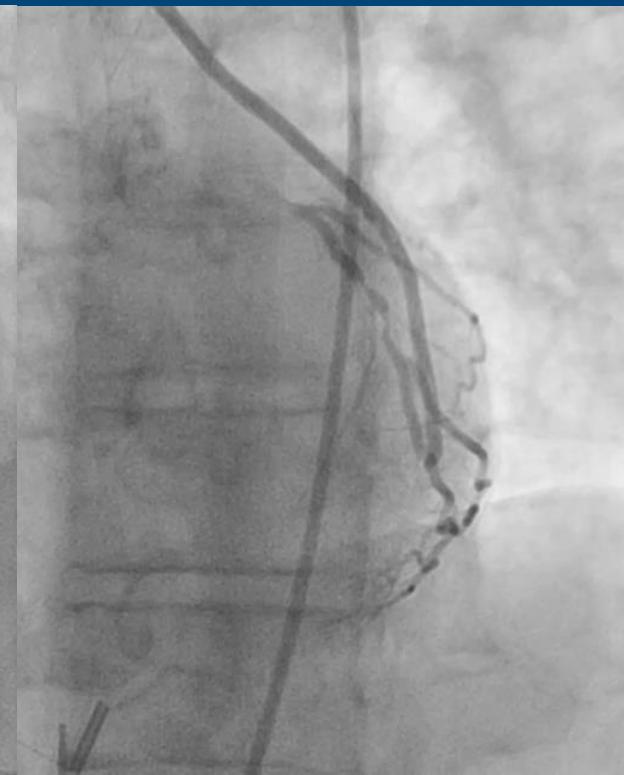
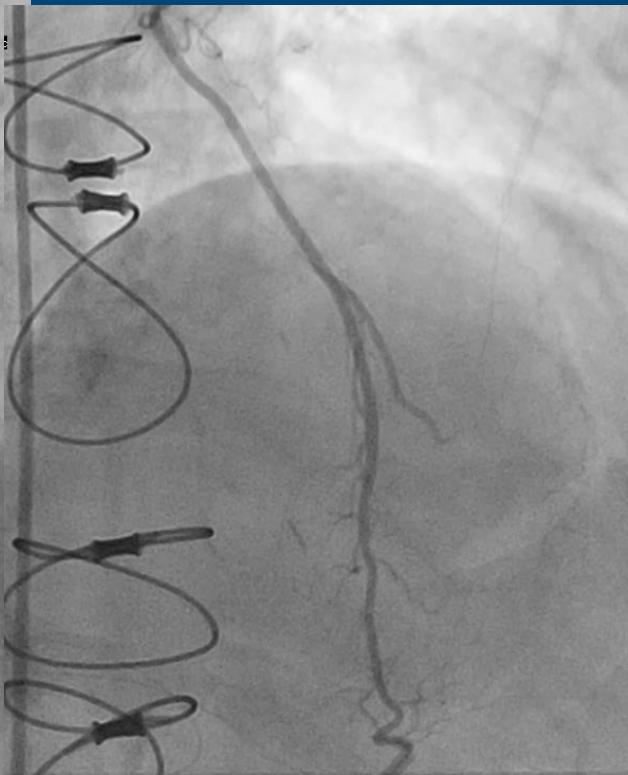
## Anatomic Challenges

- Prior sternotomy
- Prior chest radiation
- Heavily calcified and narrow sinotubular junction
- Large, heavily calcified aortic annulus

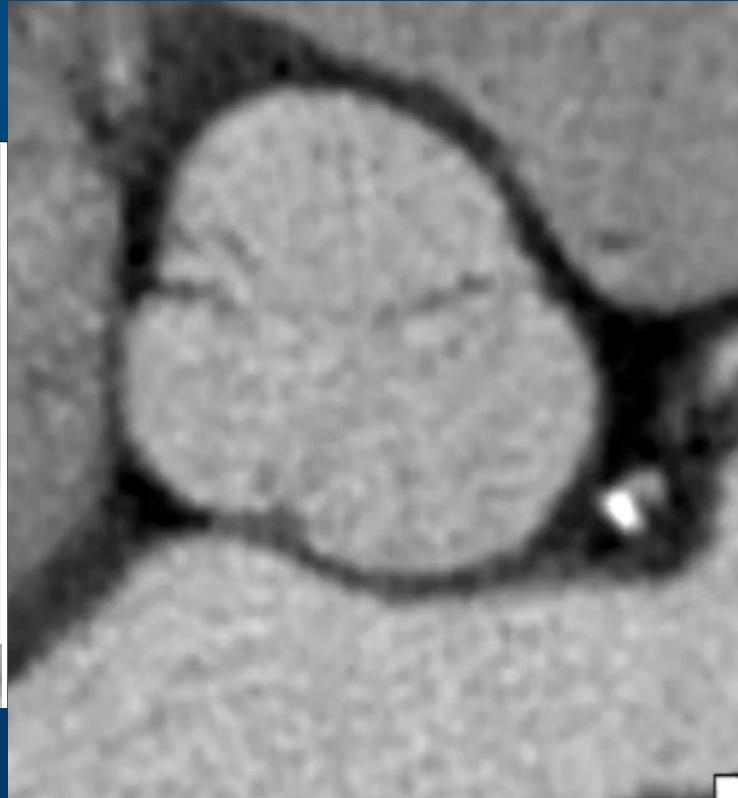
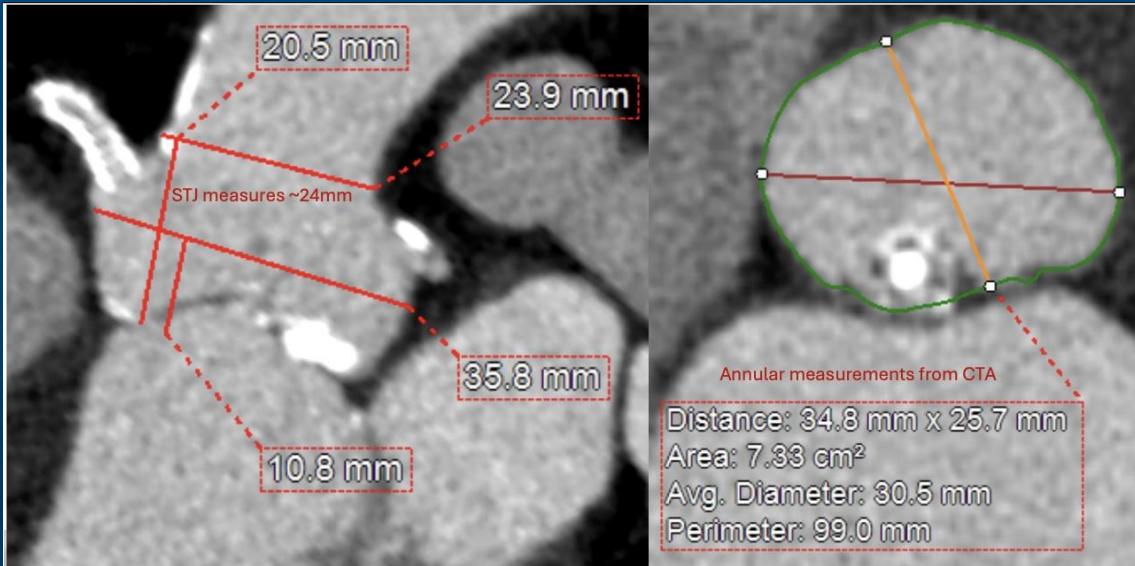
# Transthoracic Echo Imaging



# Coronary and Graft Angiography



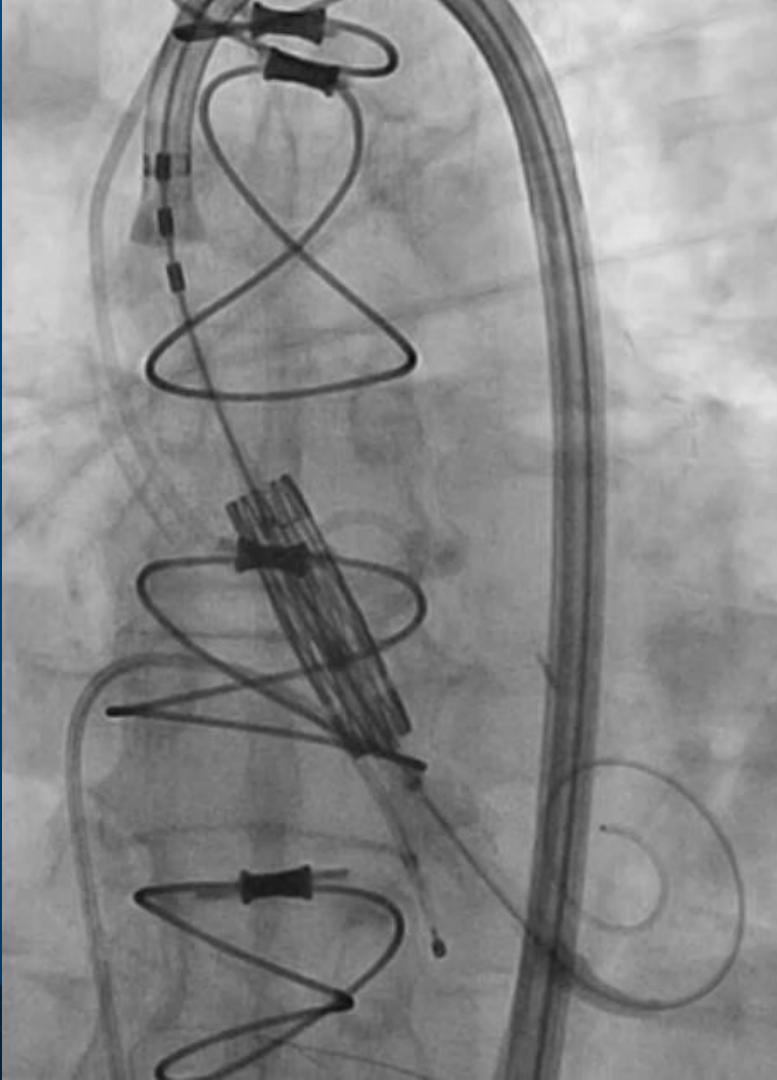
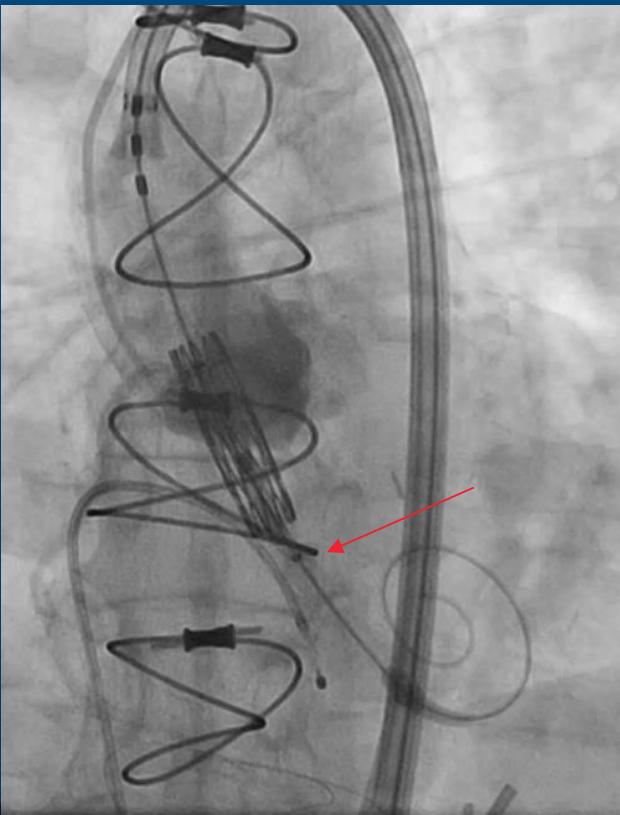
# CTA Imaging



# Multidisciplinary Case Planning

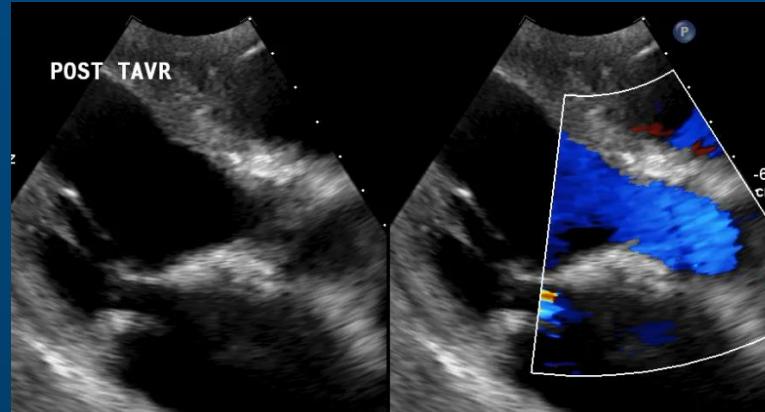
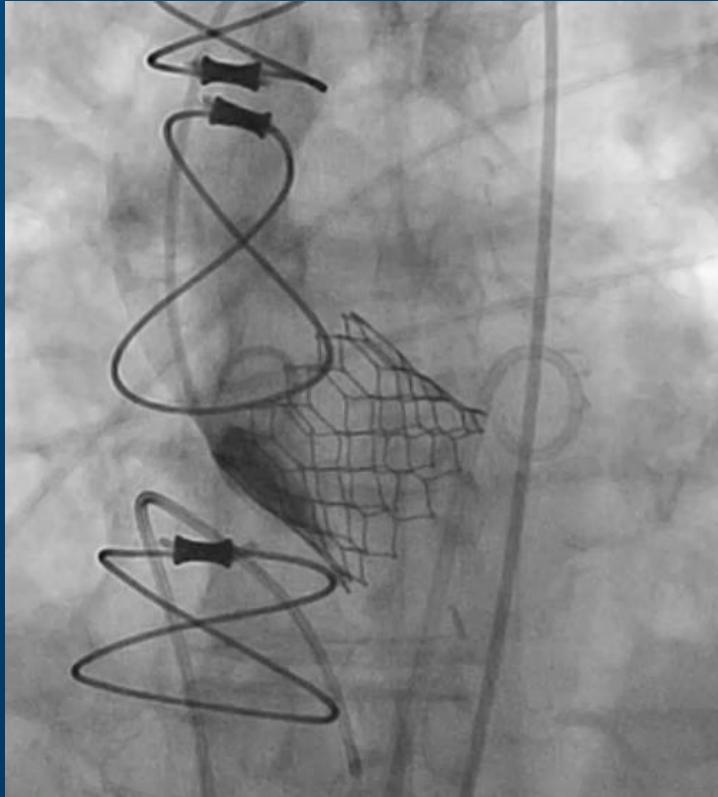
- Discussed alternative TAVR prostheses and cardiac surgery
  - Annular size, coronary disease
- Repeat independent visits with IC and CTS
- *“His reoperative status in an irradiated chest with poor right heart function (not to mention his right heart stuck to the back of his sternum) makes him a poor surgical candidate. His fibrous trigone is completely calcified and might require a reoperative Hemi commando procedure mandating the resection of his mitral valve as well. The 30-day risk of death with that procedure is at least as high as TAVR.”*

# Case Completion



Faculty disclosure information

# Clinical Outcome



# Conclusion

- Cautious undermounting of TAVR prosthesis on the deployment balloon
- Deflator pressure monitoring during **slow** deployment
- More **ventricular** deployment than usually preferred
- Post-deployment aortography for assessment of outcome

