



Valve-in-Valve: Tips and Tricks based on Cases

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Interventional Cardiology

Structural Heart Interventions

Endovascular Interventions

Aortic Valve-in-Valve

- Complexity Driven by
 - Coronary Occlusion
 - Valve sizing
 - Valve Type : Freestyle, Trifecta and Hancock
 - Migration-Embolization >>> Evolut

How you select valve size for ViV Aortic and Mitral

- 1) Valve App
- 2) CT measurements

Know valve types

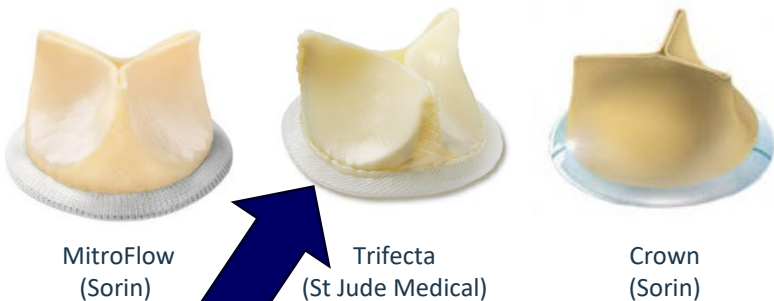
Stented



Stentless



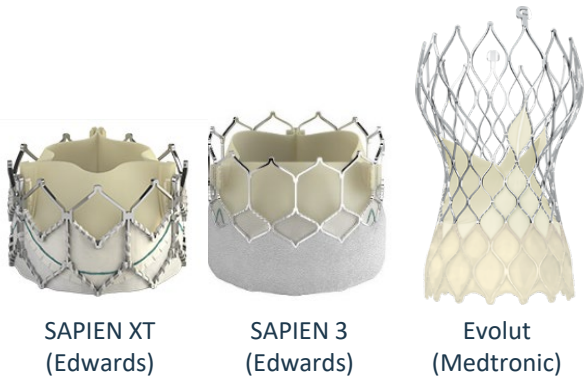
Stented, Externally Mounted Leaflets



Sutureless



TAVR Valves



Confidential. Do not copy or distribute externally.

Crossing

- Straight wire
- Straight glide wire
- Pacing
- Retrograde ICE or TEE



Do you BAV for ViV Aortic

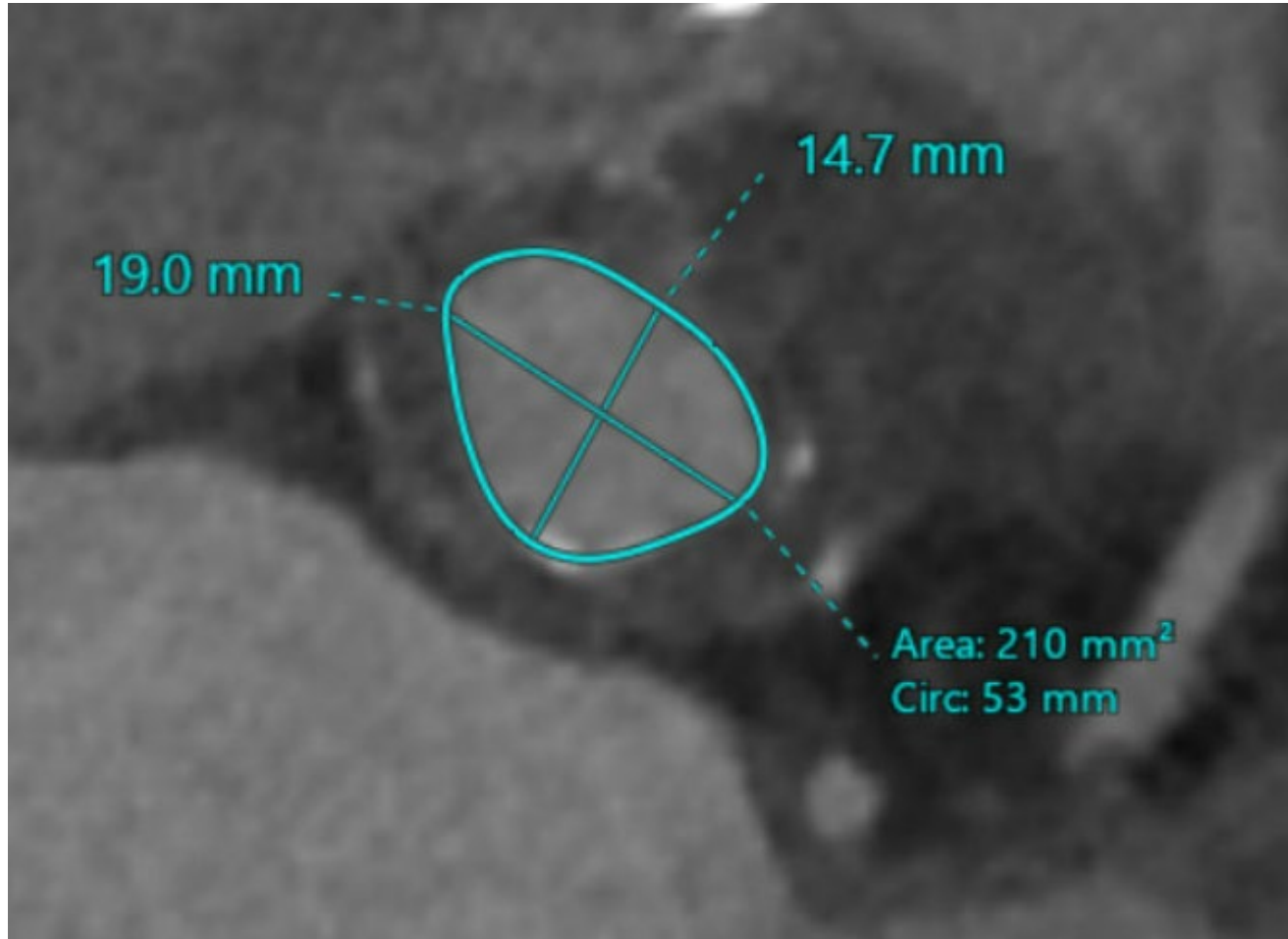
- 1) Always to fracture
- 2) Sometimes if high gradients
- 3) Only after if high gradients
- 4) Only if valve under expand
- 5) To define valve size and coronary risk

Pre BAV to facilitate Delivery

- True ID or 1size bigger valve
- Peripheral balloon
- More Important in AS

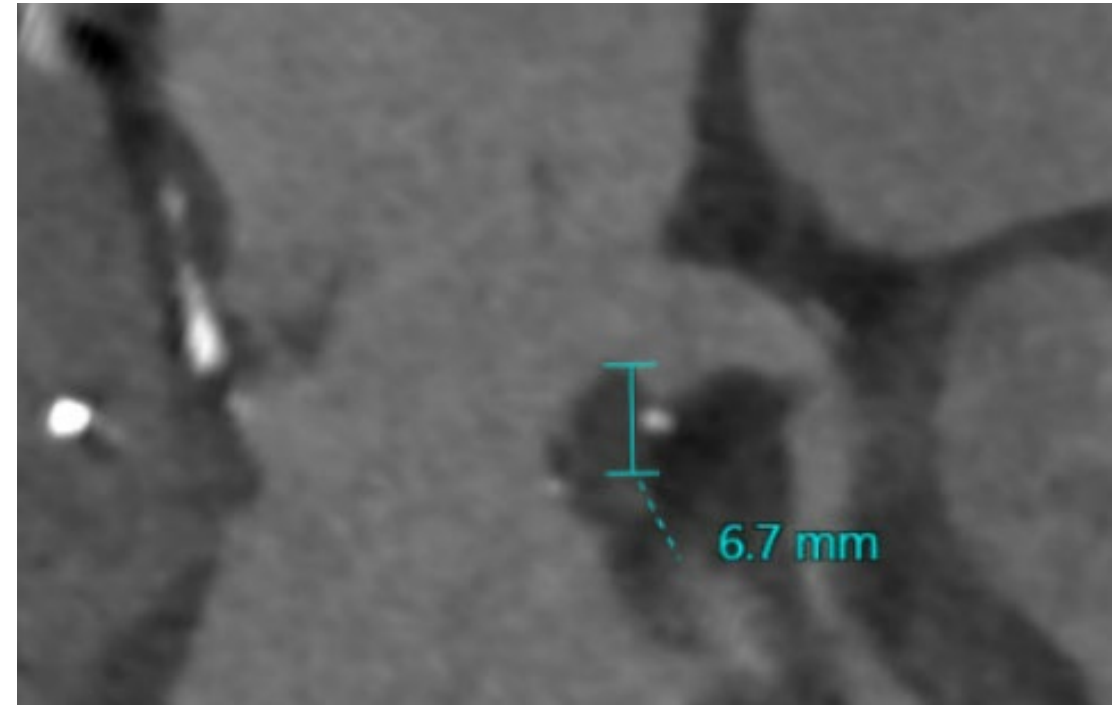
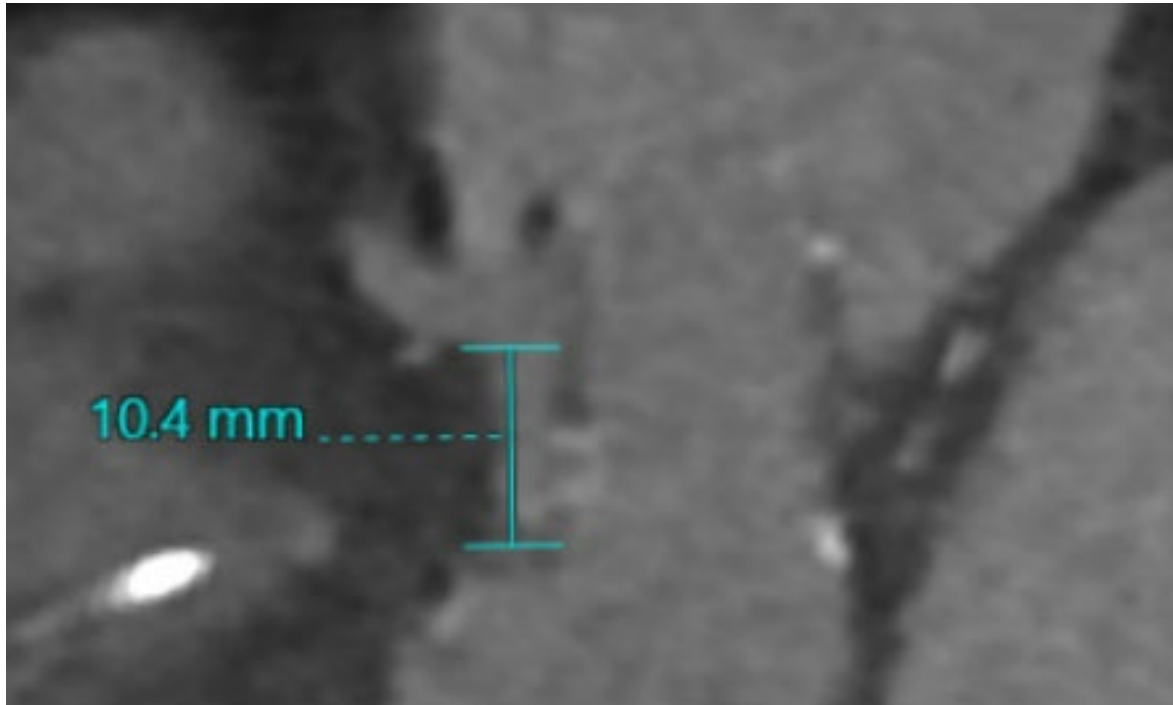


25 Freestyle Vapp 23/26 Sapien



- CT measurement
20mm Sapien
oversize

More problems

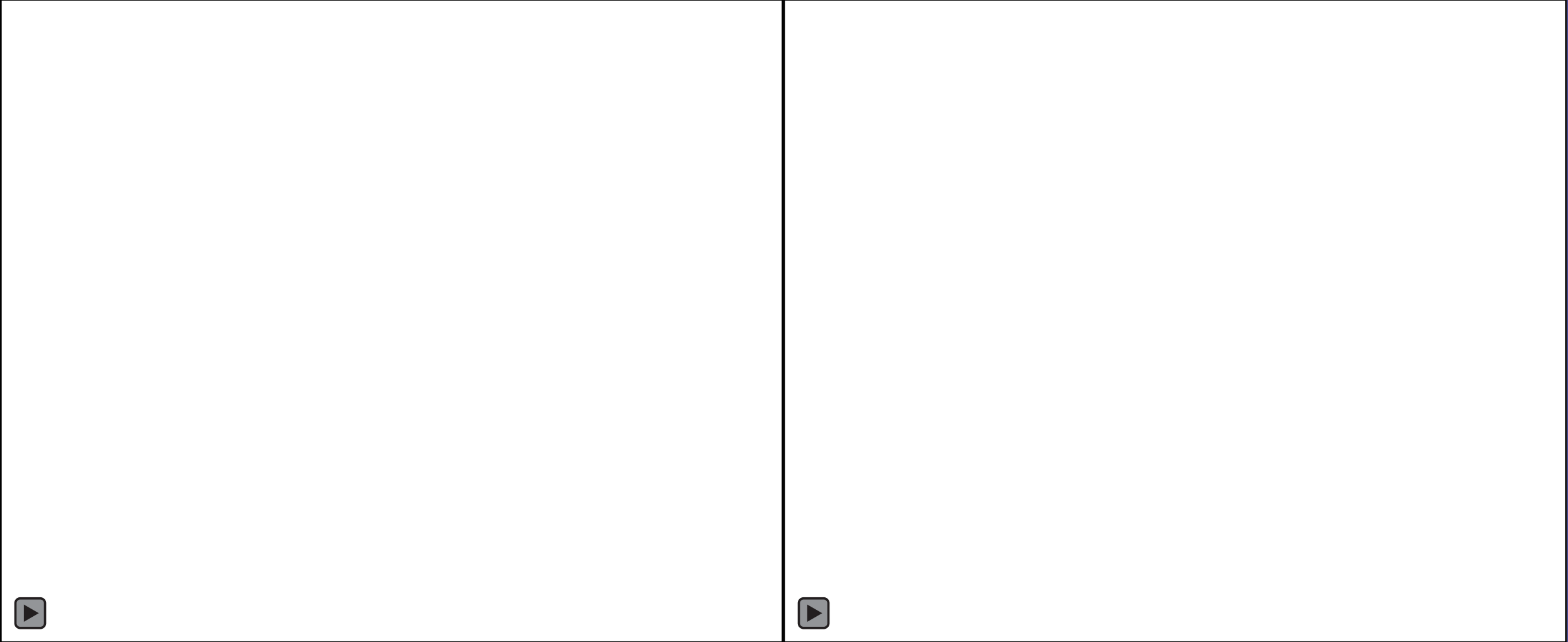


Coronary Obstruction Risk

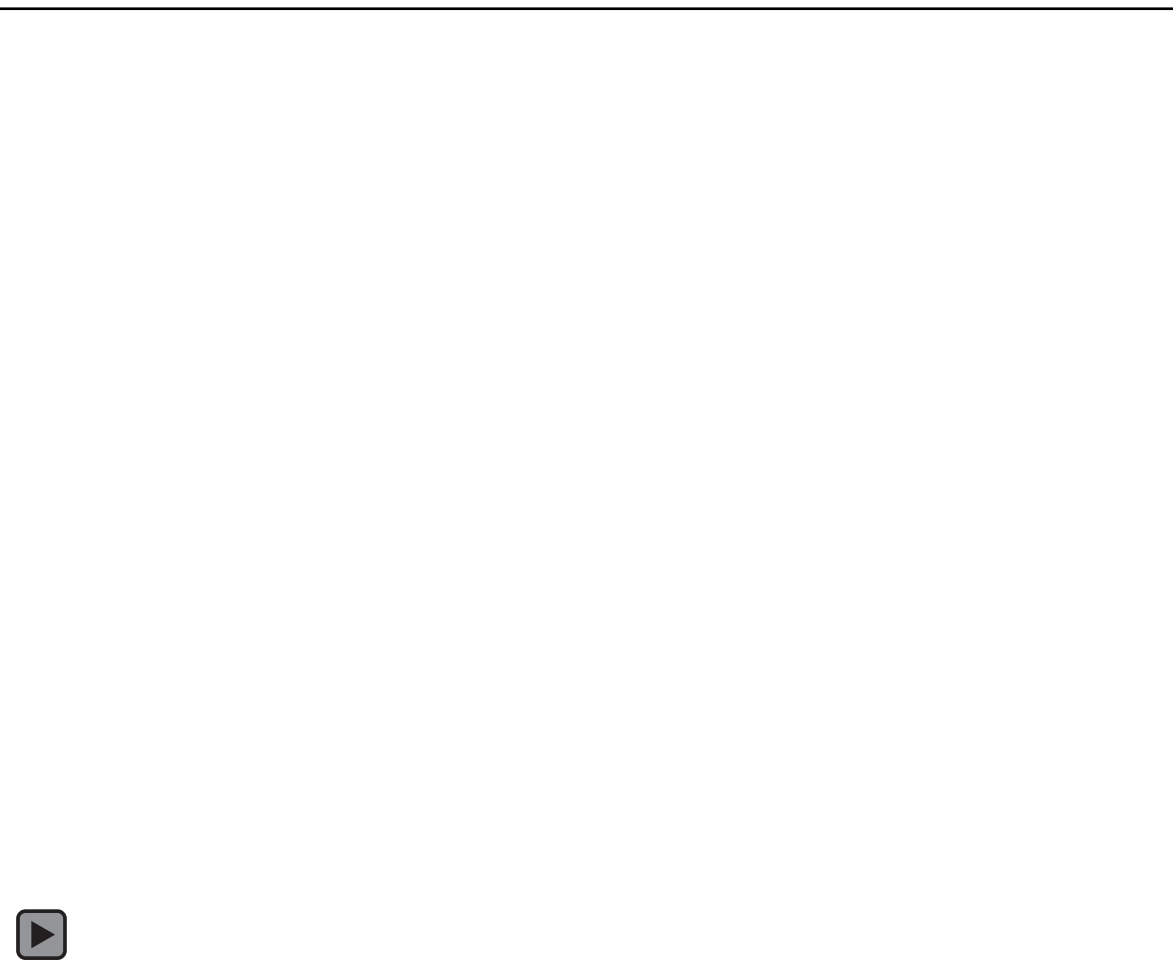
- Height 10mm +/- 2
- VTC
- Leaflet lengths (above STJ)
- Poste Above STJ with narrow STJ
- Bulky Ca (more in native)
- Destroyed Leaflet with Augmented motion Ao-LV

Default strategy to coronary protection

- 1) Stent
- 2) BASILICA
- 3) UNICORN



Balloon Sizing 23mm



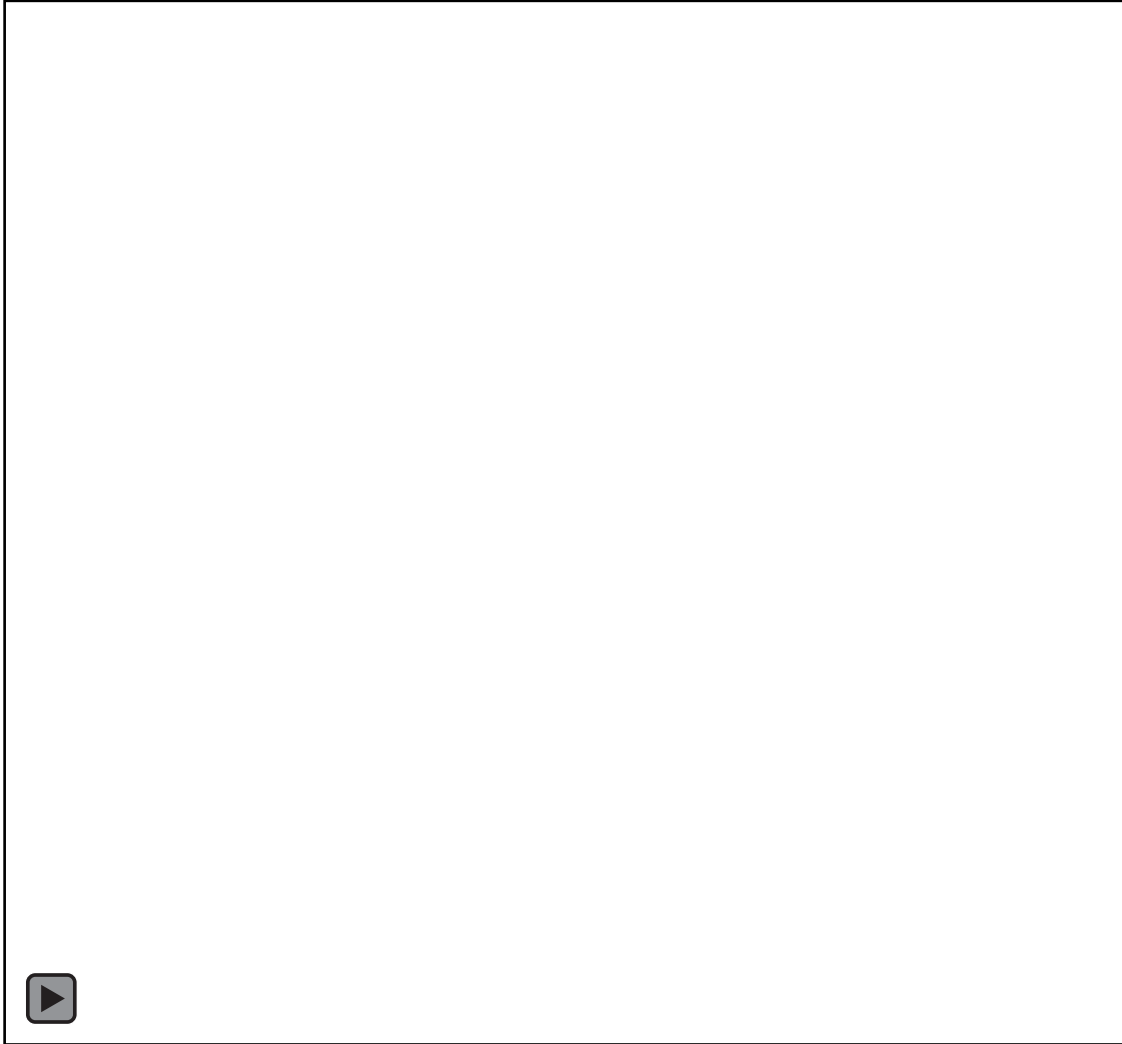
23mm Sapien with Patency of both coronaries



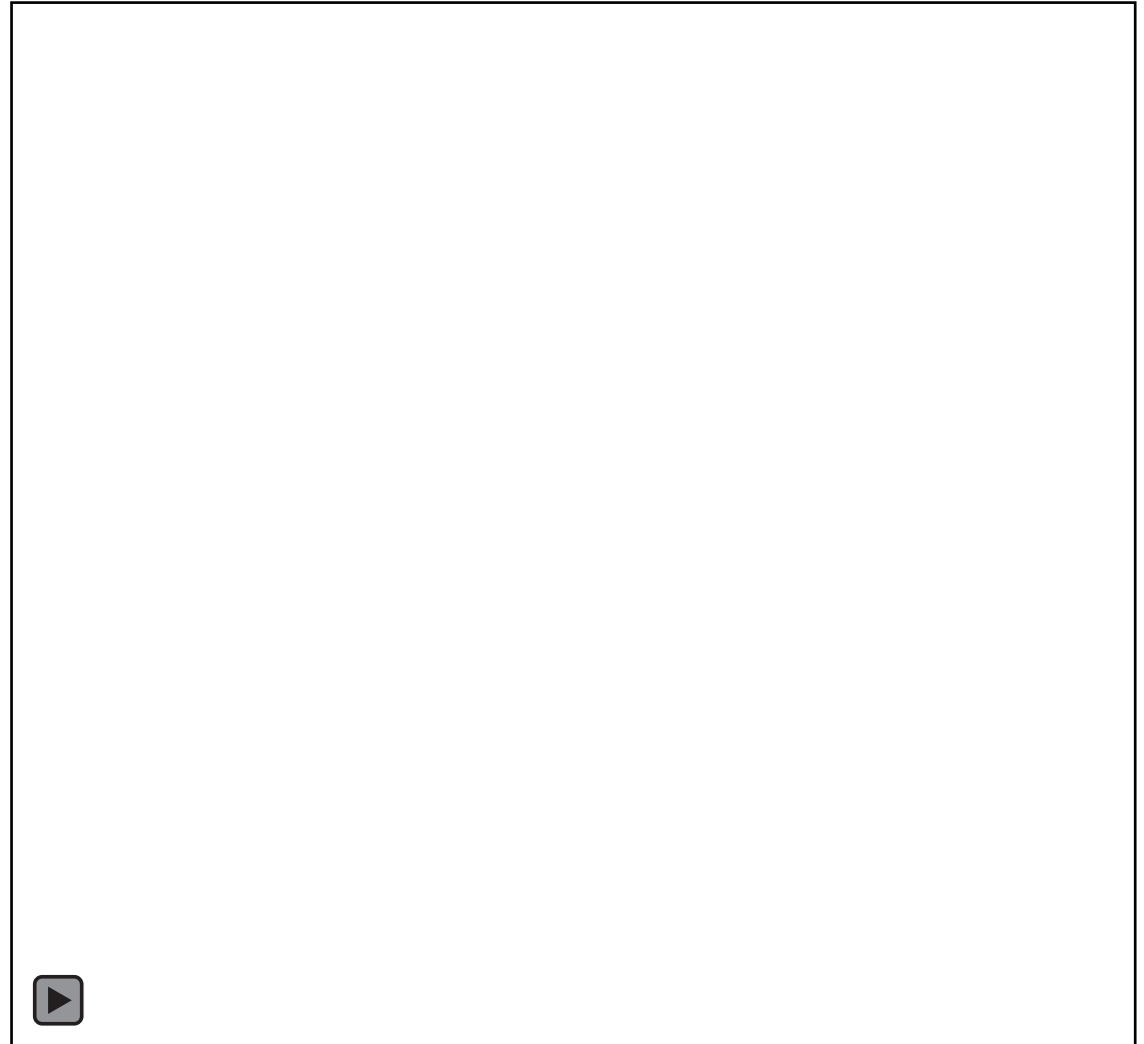
What defines trigger to Fracture

- 1) Gradient
- 2) Valve Expansion

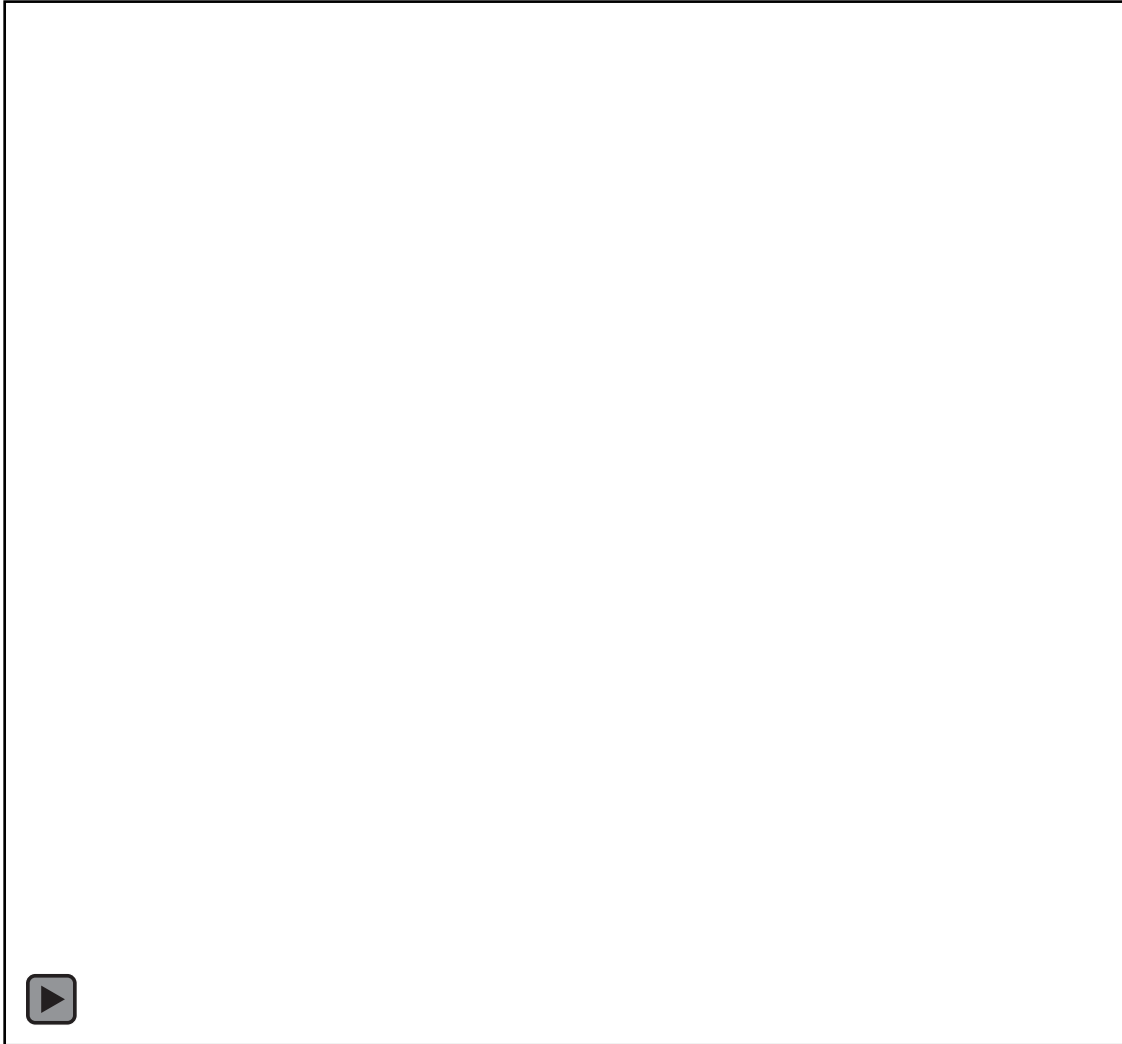
CE 20mm



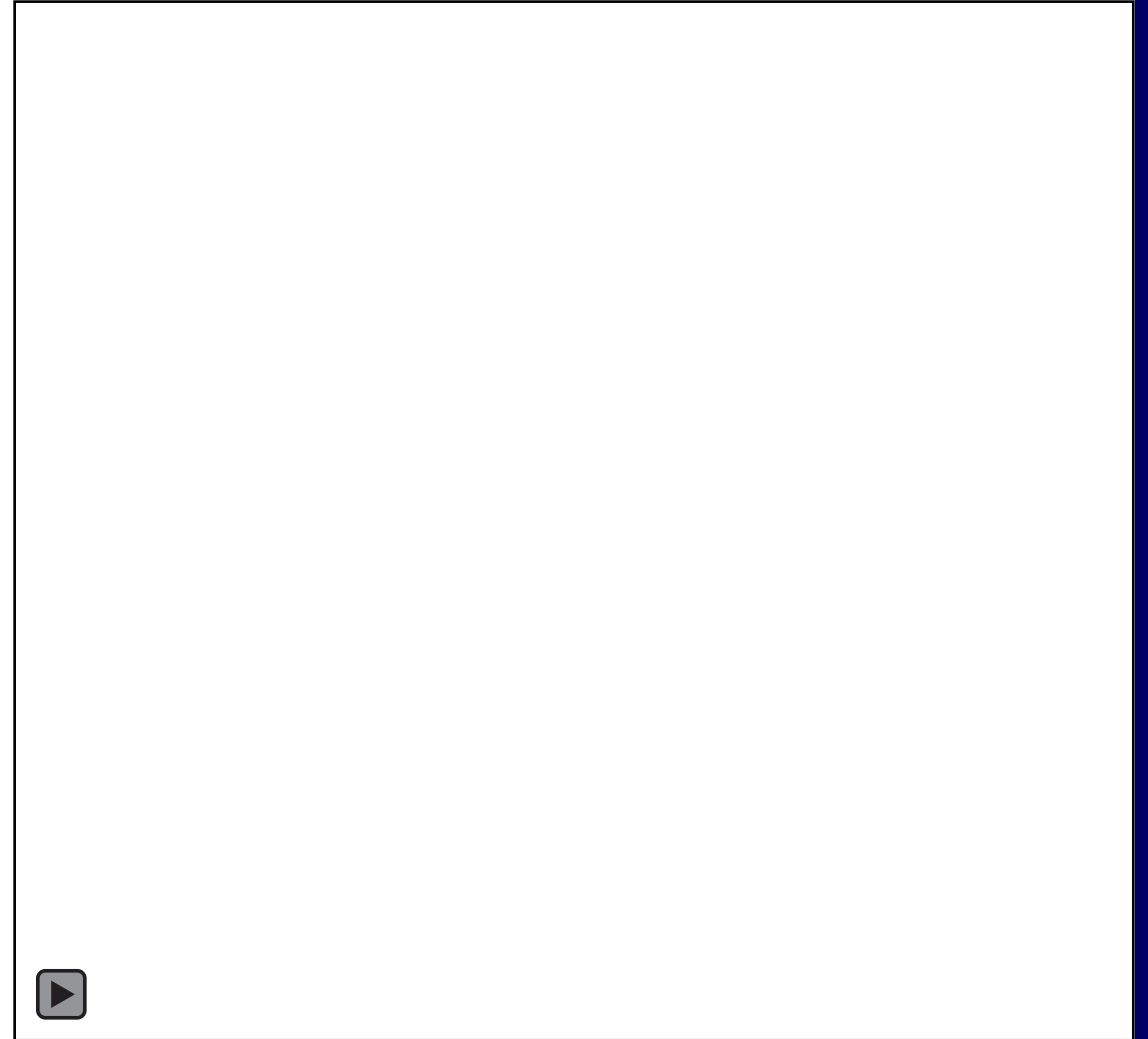
Sapien 20



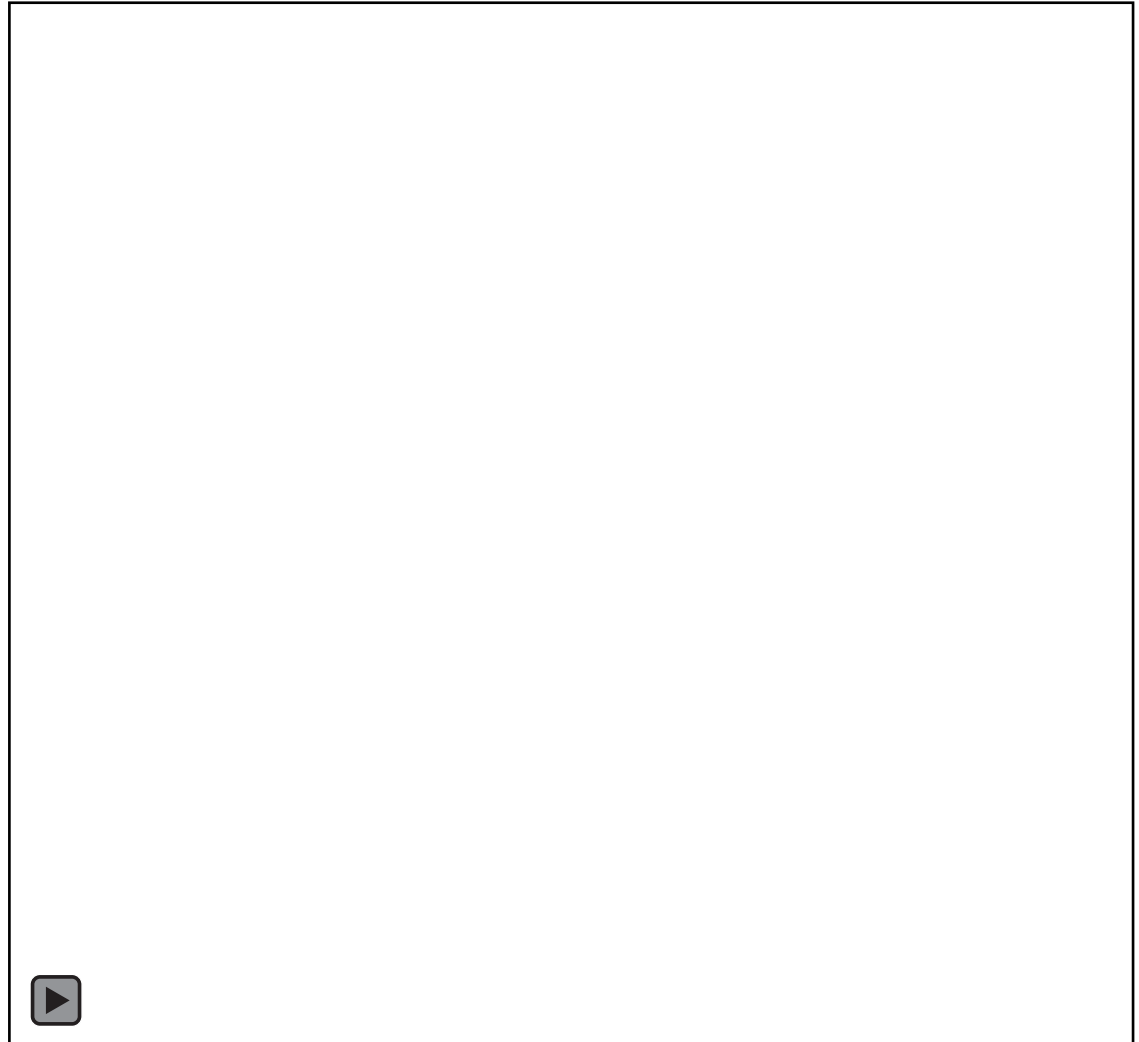
BAV



Central AI

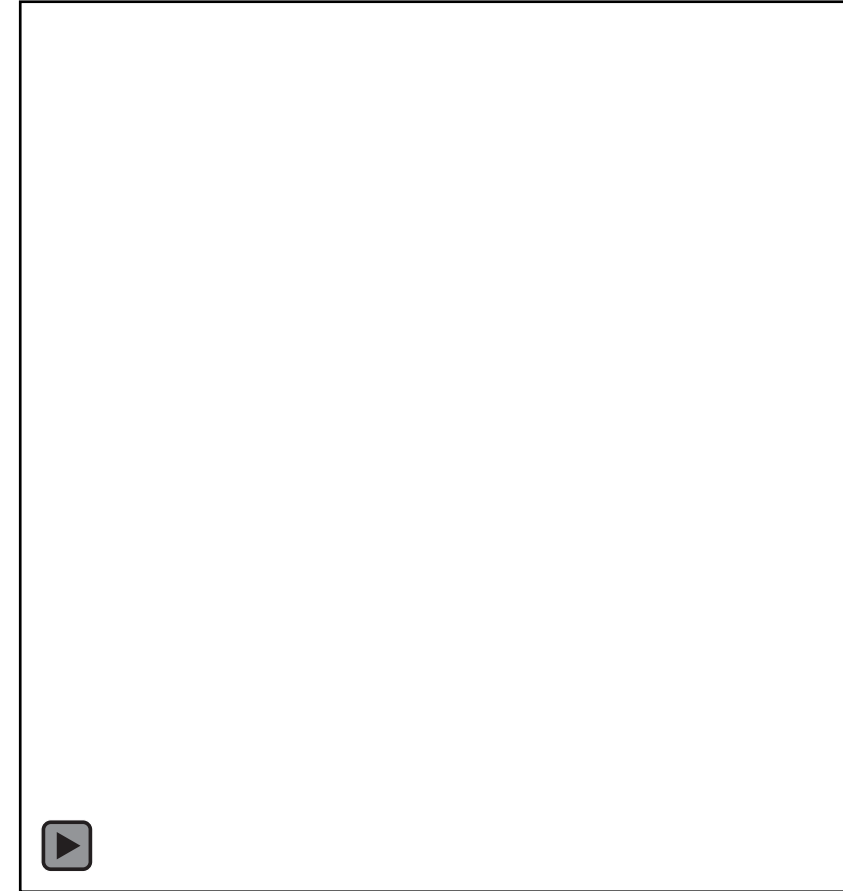
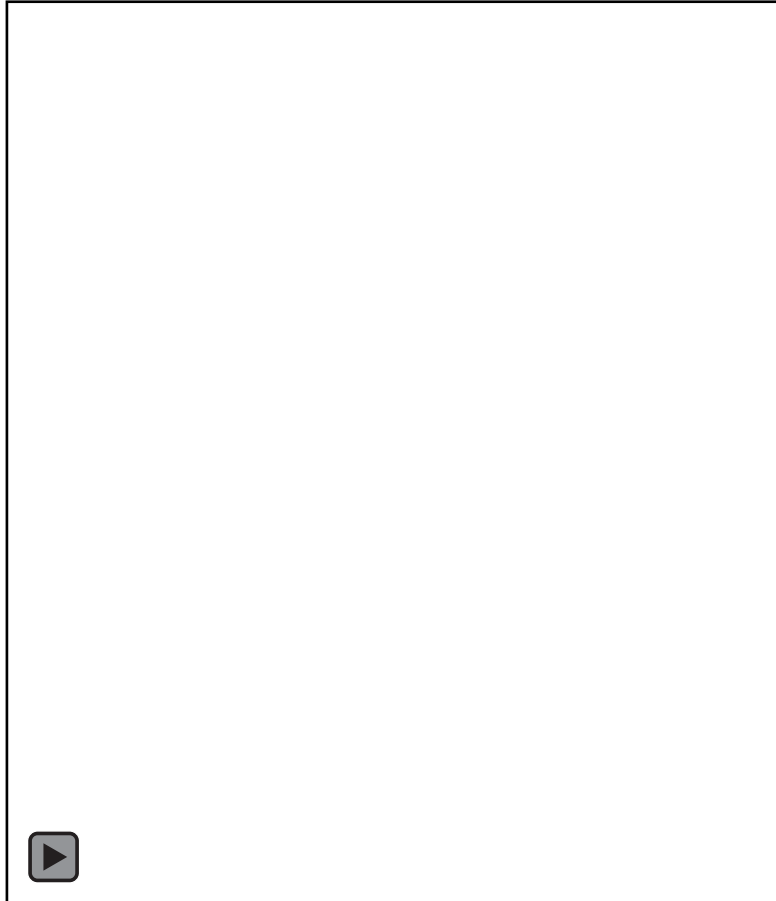
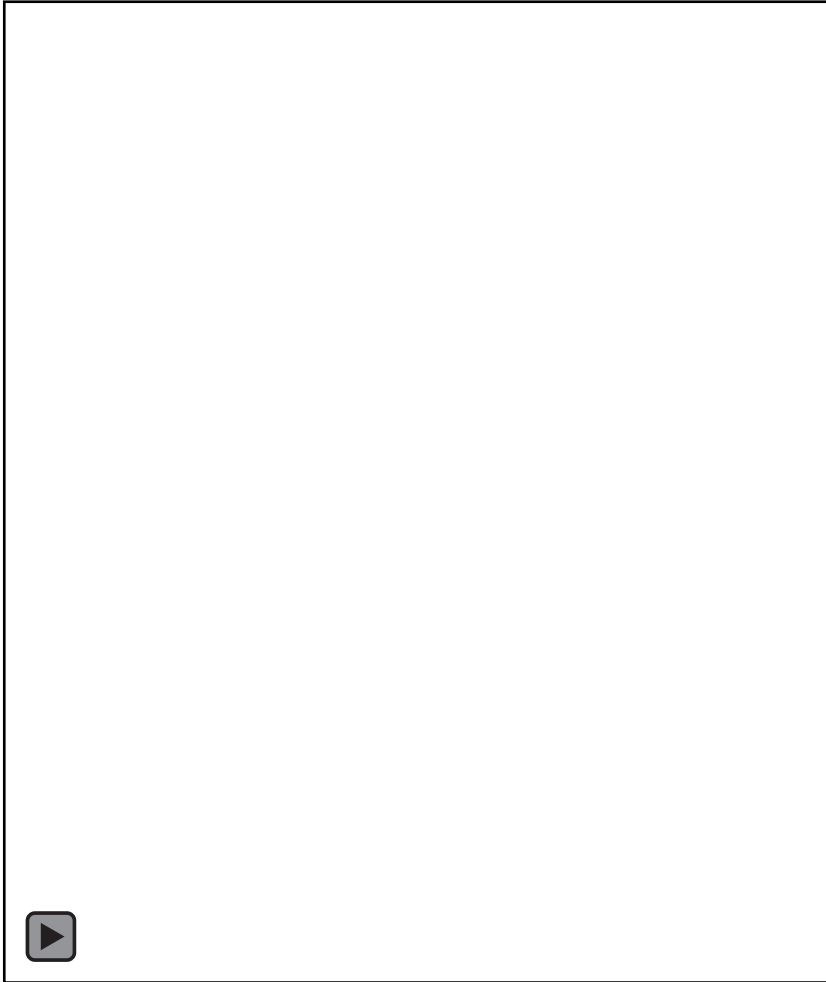


- Small valves post BAV consider ID for sizing
- If External ID high risk of Central AI 20>23mm
- Uncommon with 26 or 29mm

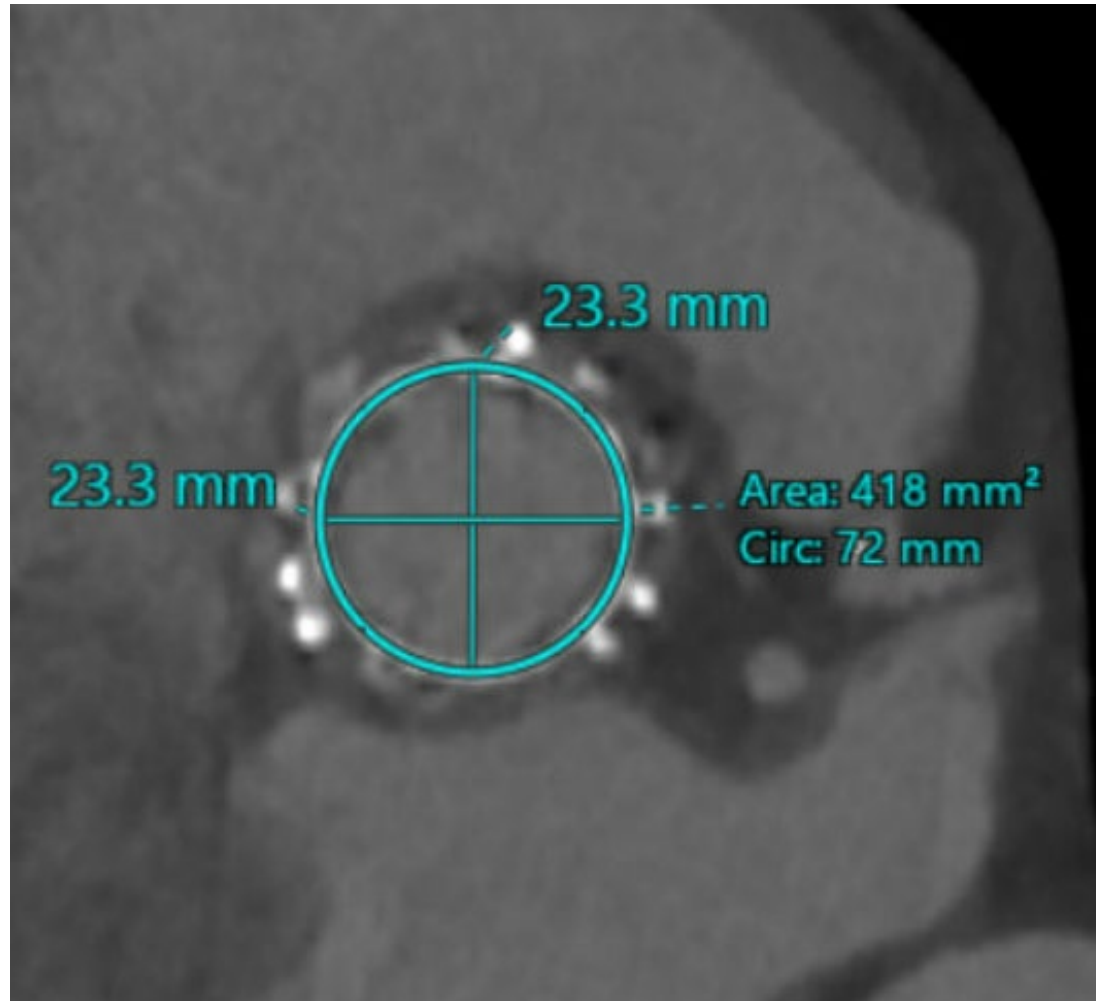


Pre BAV
expansion

Add 2cc to gain



Trifecta 25mm Valve app 26s3



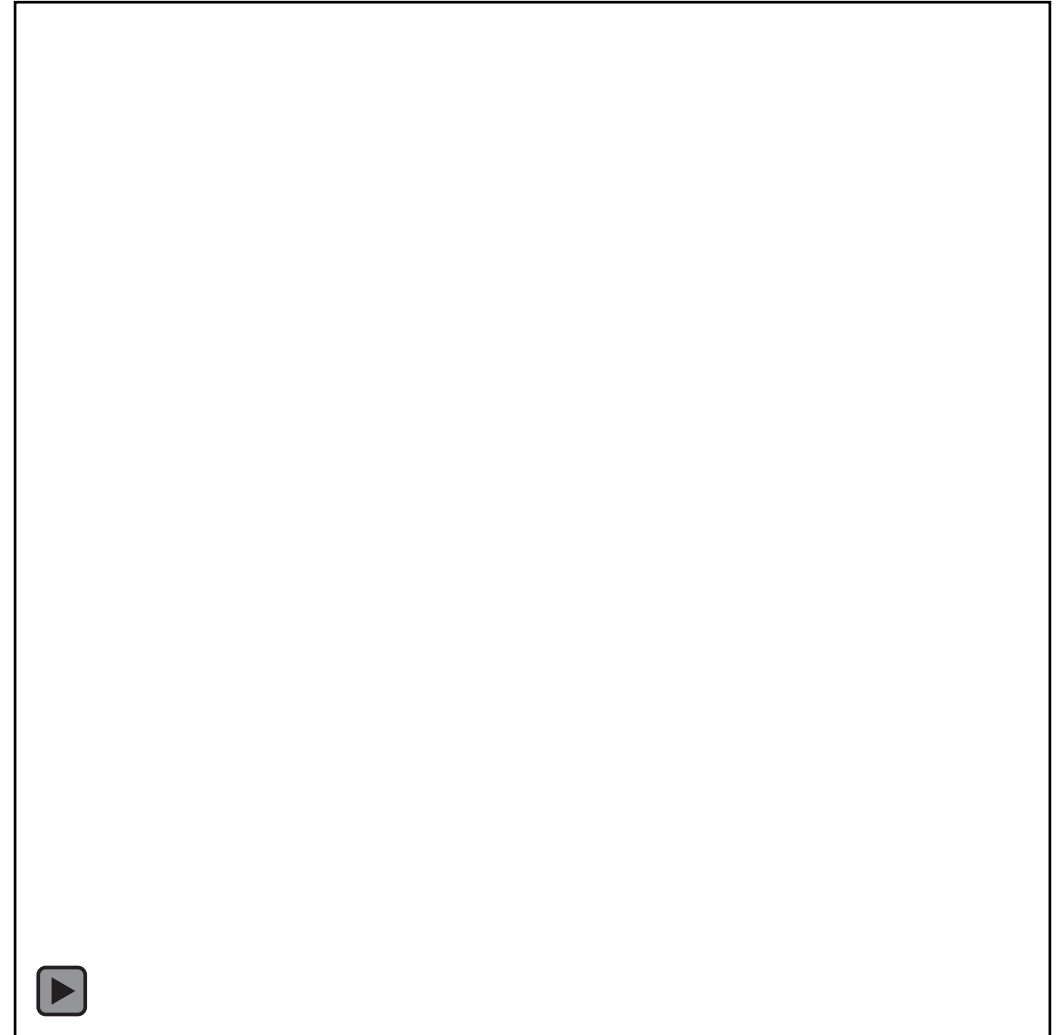
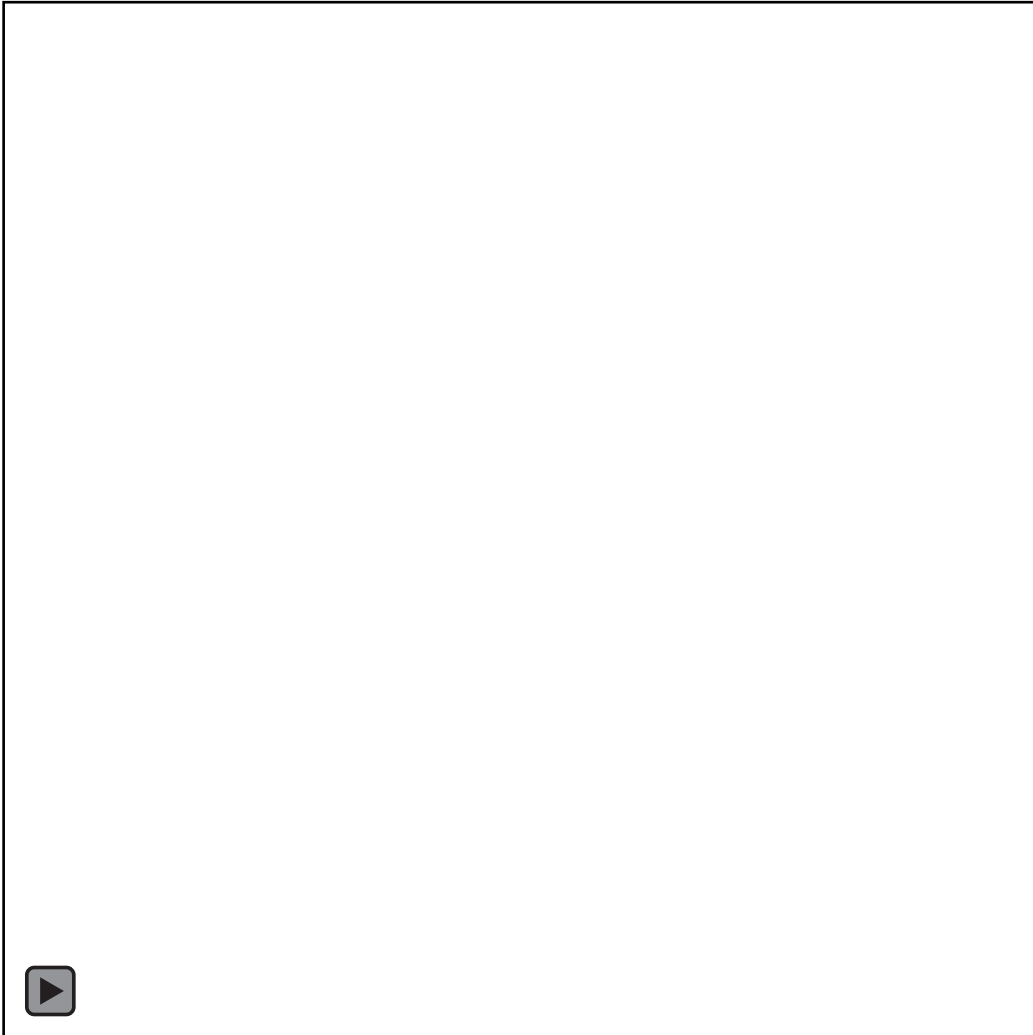
Sizing

- 1) CT
- 2) Valve App

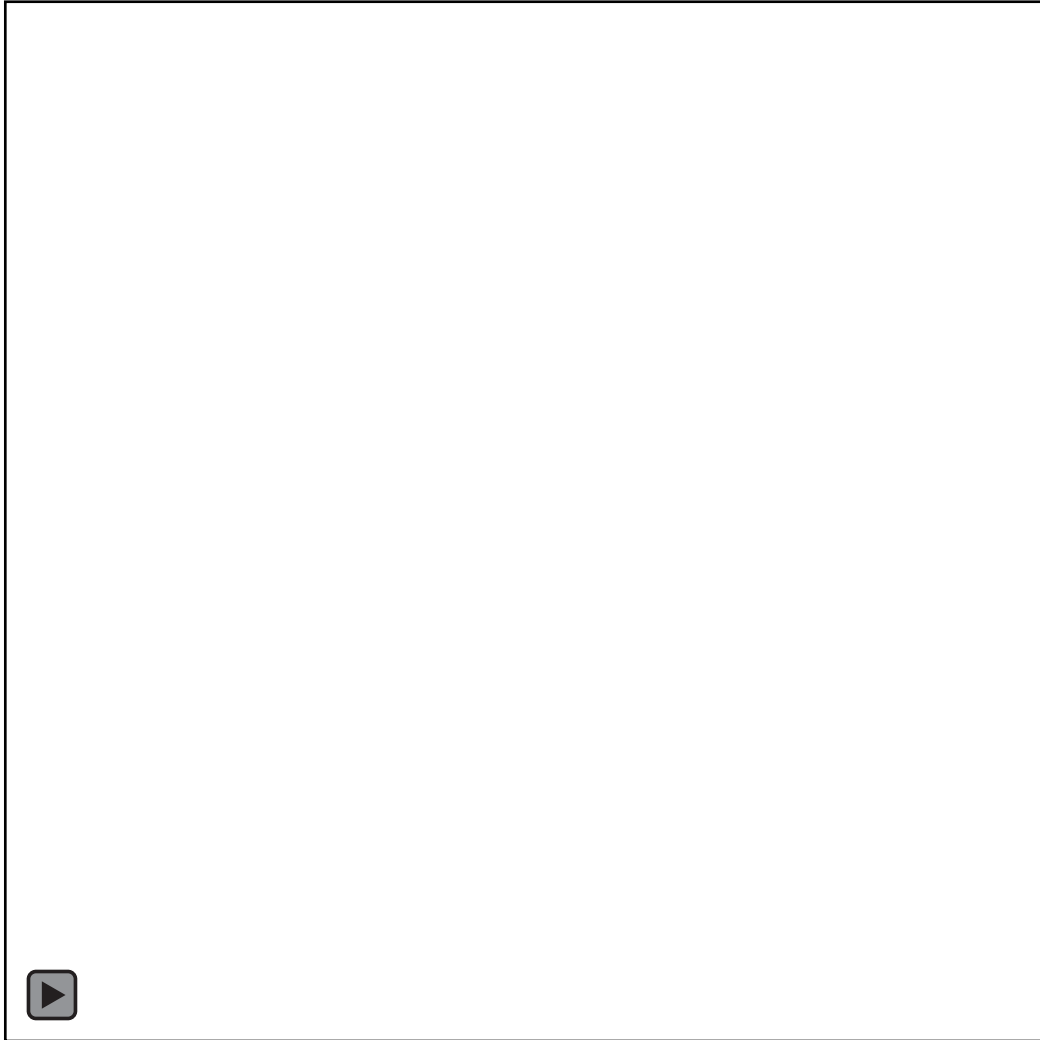
Sapien 23mm +2cc



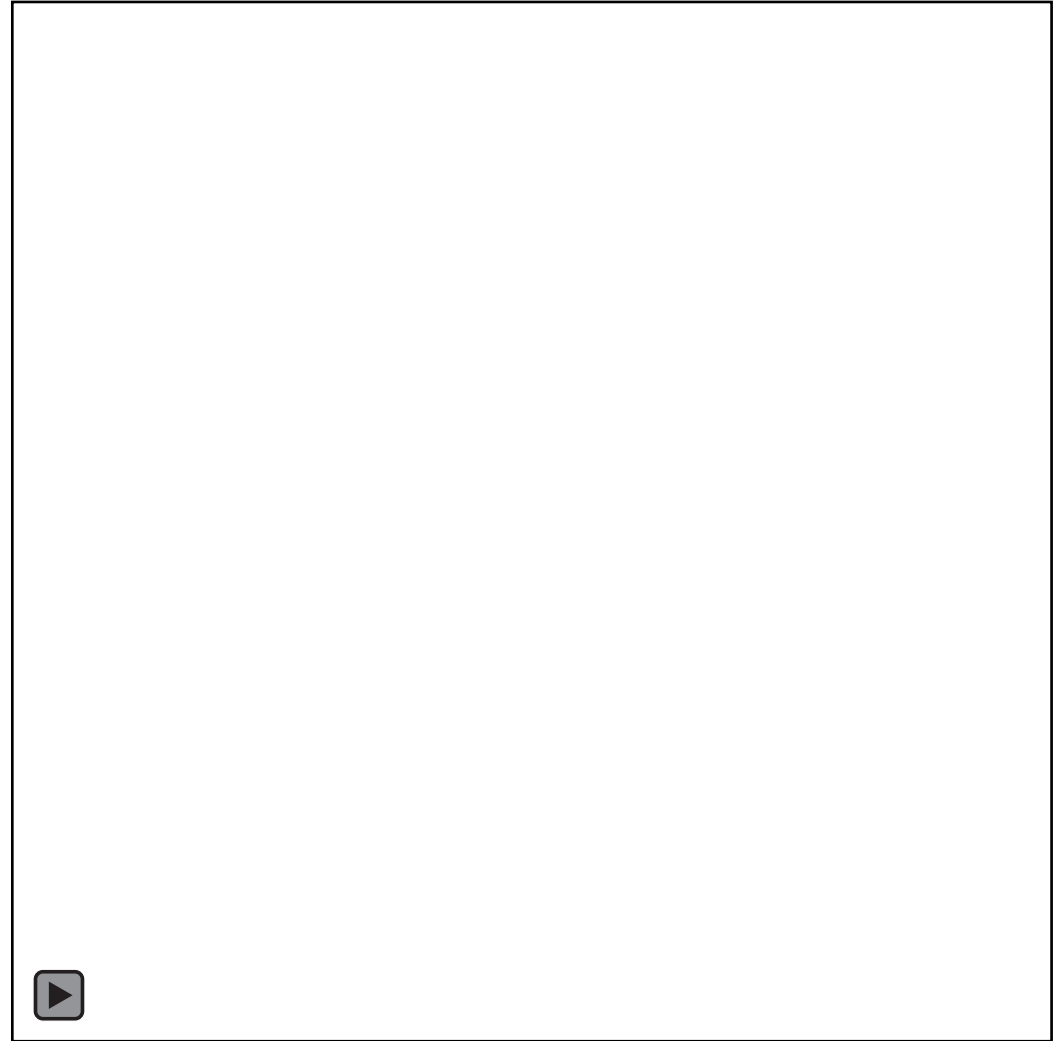
Steps and planning are Key



We are All Happy!!



HENRY FORD HEALTH®



Finish him !!



UUPPSSS!!



Take Home Messages Aortic ViV

- Aortic ViV Predictable.
- Don't have uncertainty for coronary occlusion. Can be Catastrophic
- Be familiarized with Stent, BASILICA, UNICORN
- Achieve optimal hemodynamics and valve expansion during these procedures.

