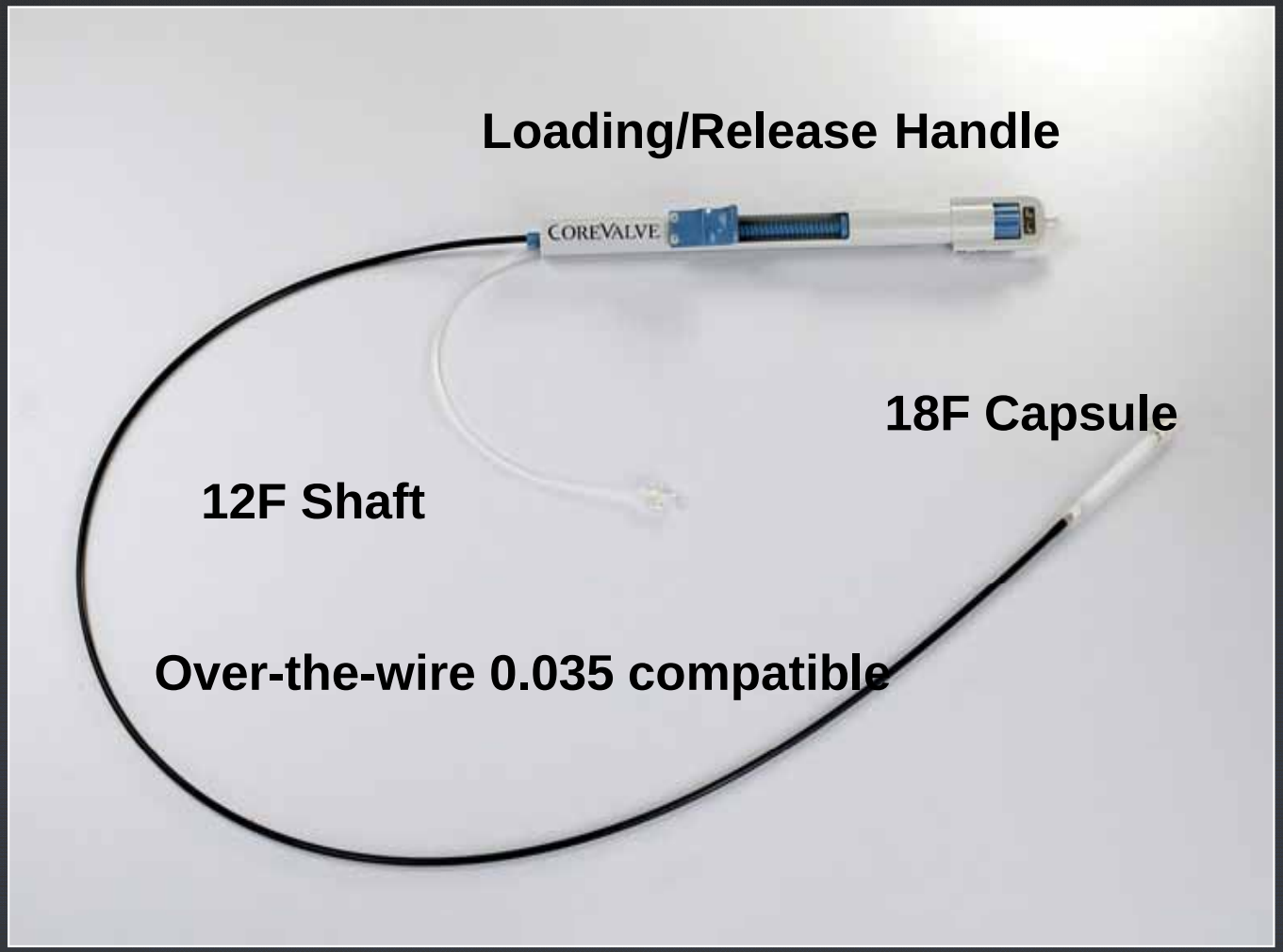
Core Valve Implantation
Tricuspid and Bicuspid

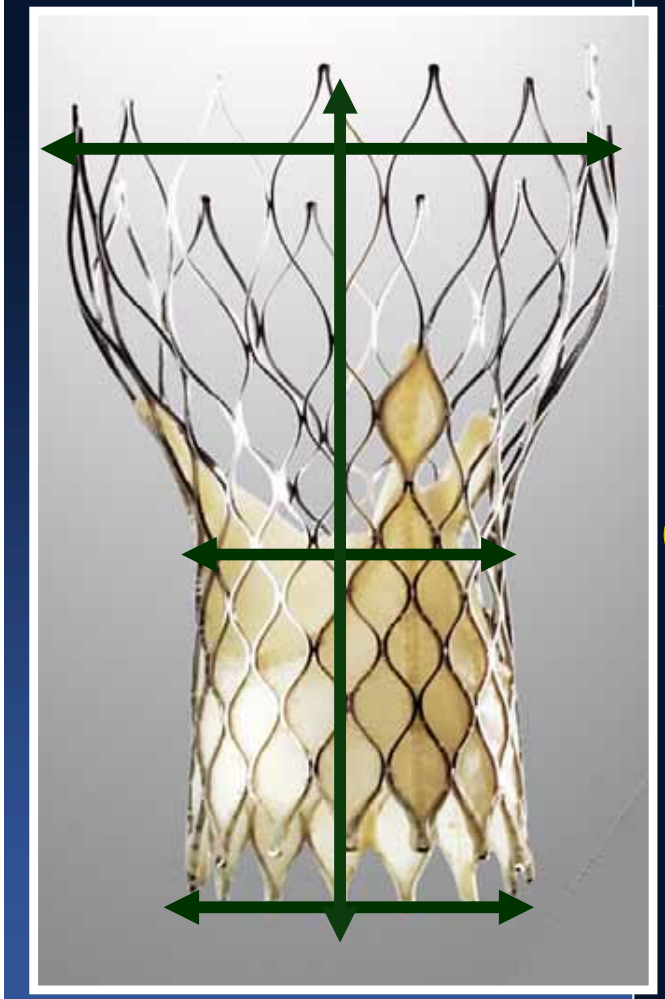
Young-Hak Kim, MD, PhD

Heart Institute, University of Ulsan College of Medicine,
Asan Medical Center, Seoul, Korea

CoreValve ReValving™ System
18 Fr Delivery System



3 CoreValve Bioprosthesis
26 mm, 29 mm, 31 mm



	"Smaller" 20-23mm	"Larger" 23-27mm	"X-Large" 26-29mm
Height	55 mm	53 mm	52mm
Outflow	40 mm	43 mm	43mm
Constrained	22 mm	24 mm	24mm
Inflow	26 mm	29mm	31mm
Access	18 F	18F	18F

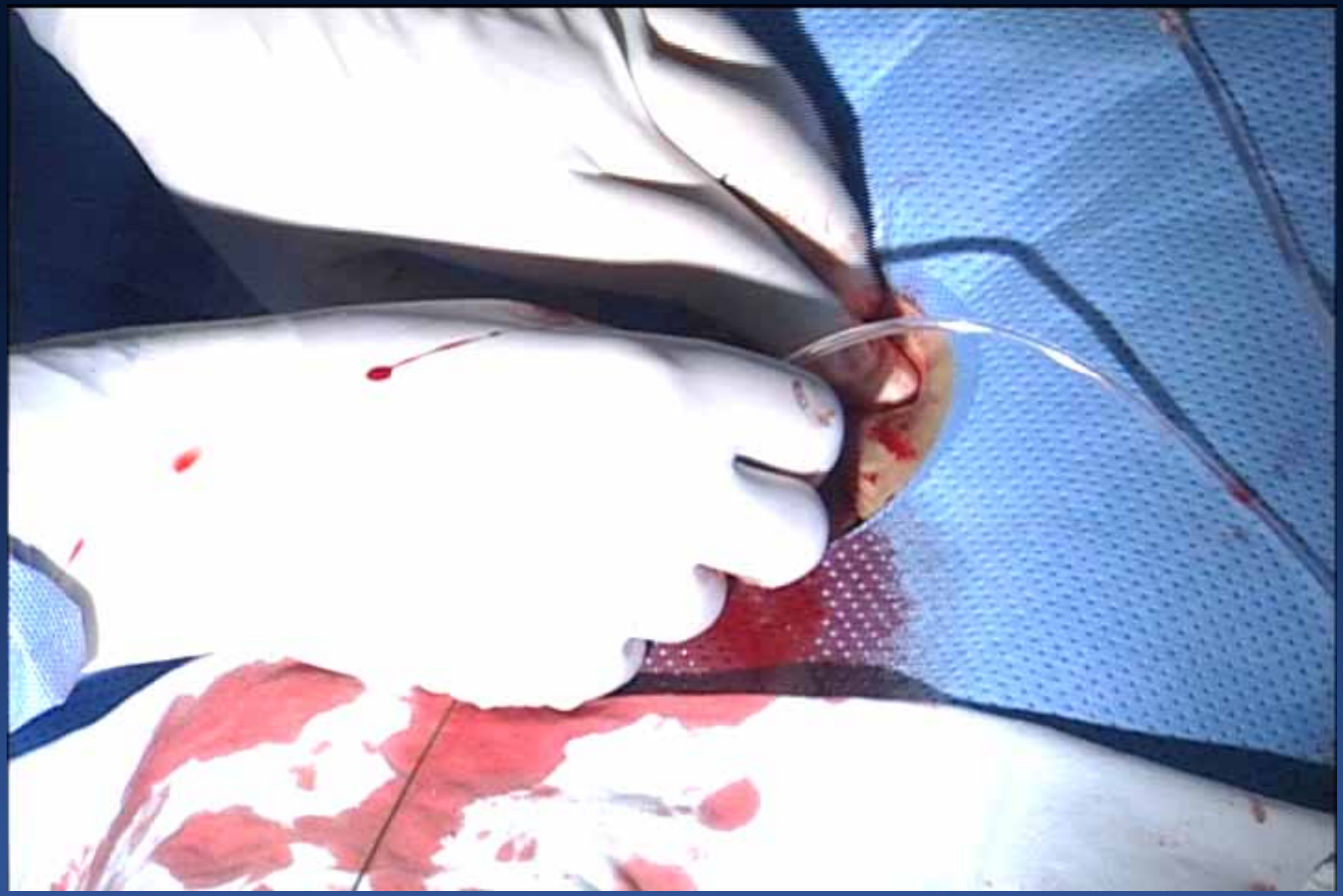
Bicuspid AS

- M/77, 156cm, 55kg, BMI 22.8
- EuroSCORE = 16 %
- AVA = 0.37 cm²
- Mean/Peak PG = 70/117 mmHg
- Annulus by TEE = 21 mm
- EF= 60 %
- Annulus by CT = 21.1~23.7 mm
- Perimeter = 74 mm

Core Valve 26 mm

Pig tail and Pacemaker Insertion

Proglide (X3) Insertion

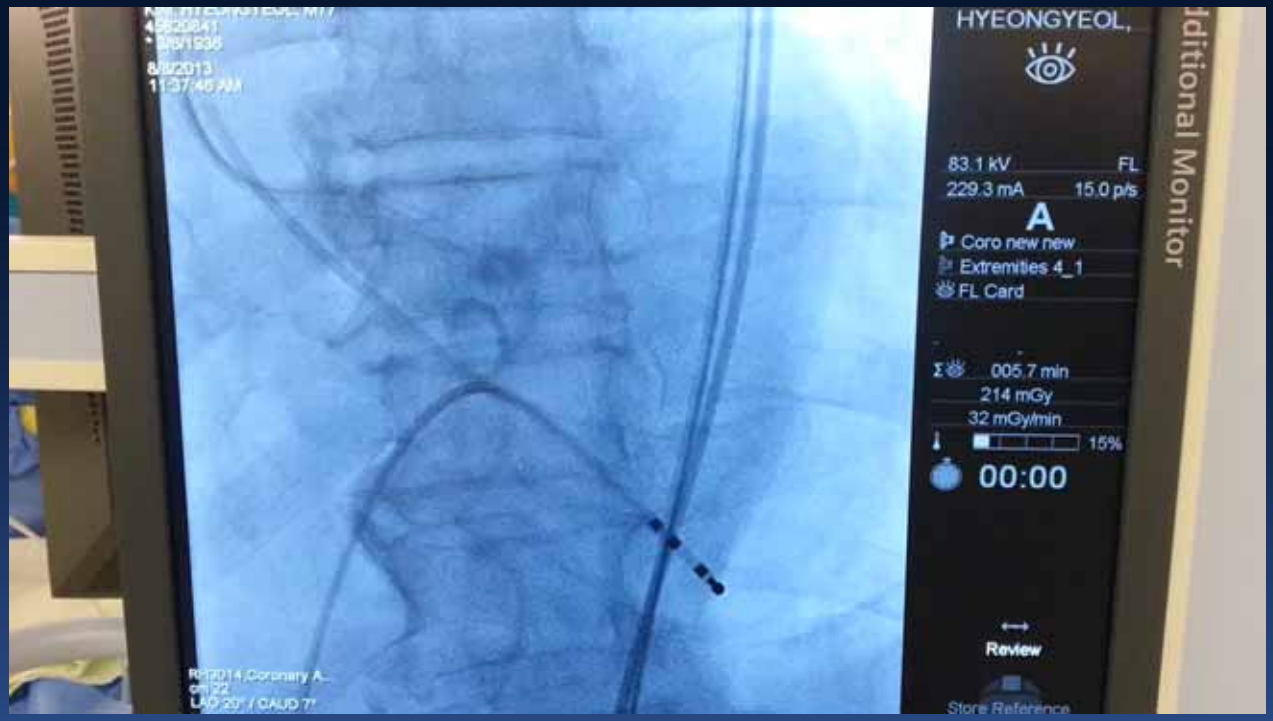


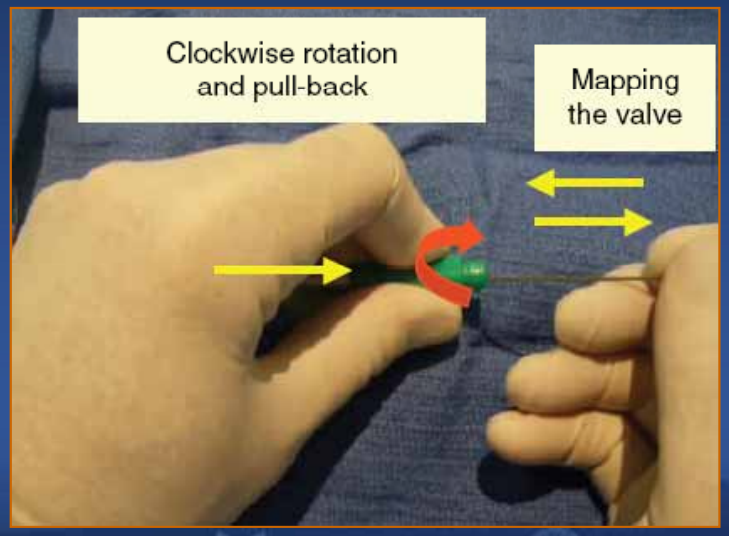
Baseline Angiograms: Bicuspid

Drs.

Jean-Claude Laborde
Seung-Jung Park
Young-Hak Kim
Won-Jang Kim
Jong-Young Lee
Sung-Han Yun

Wire Advancement to LV





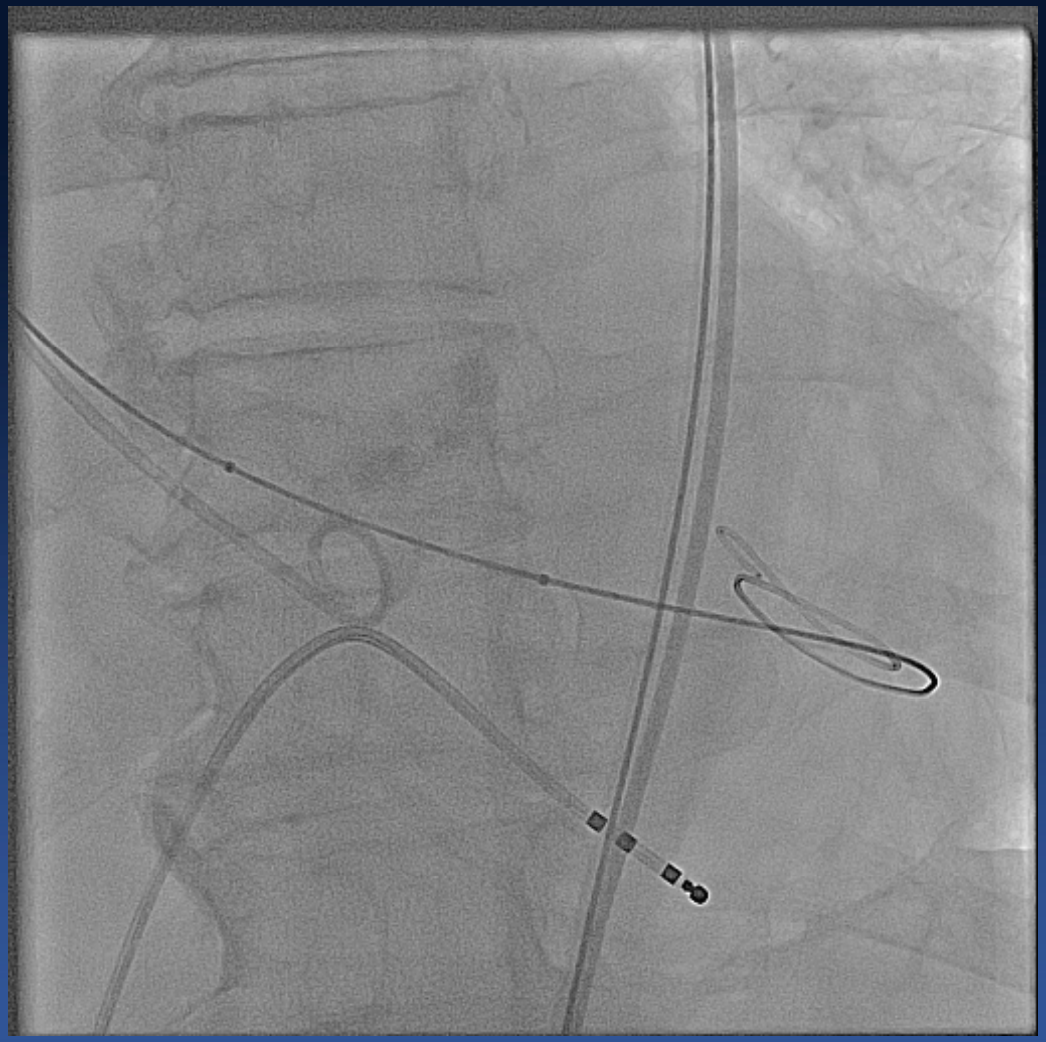
Looping and Positioning of Stiff Wire

Super-stiff wire

- Stabilization in LV
- No damage to LV wall

Predilation

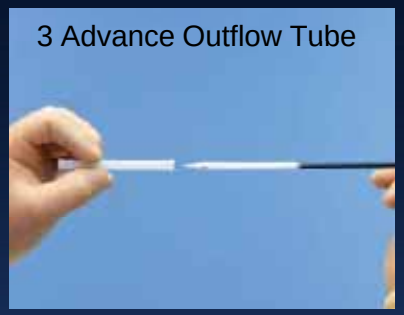
22 mm under rapid pacing (180/min)

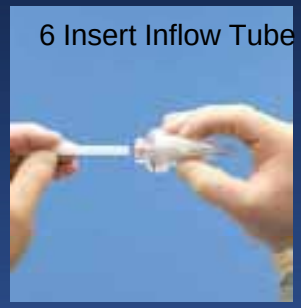


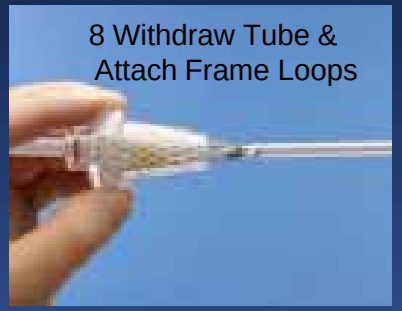
Used for

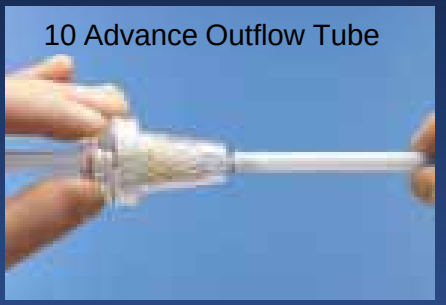
- Device delivery
- Valve sizing
- Coronary blockage
- Leaflet movement

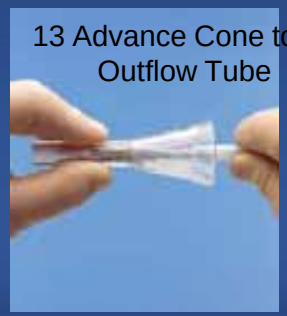
Core Valve (26mm) Preparation





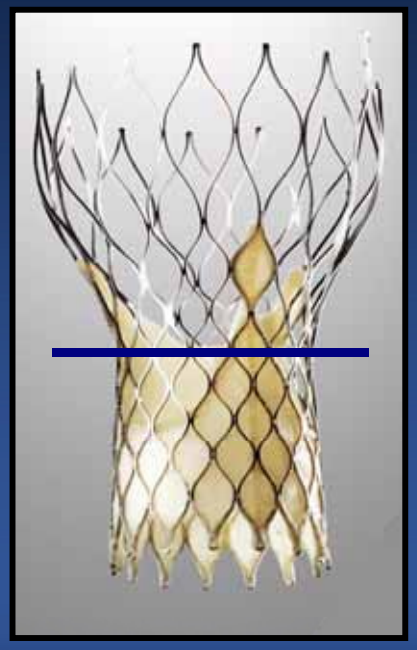


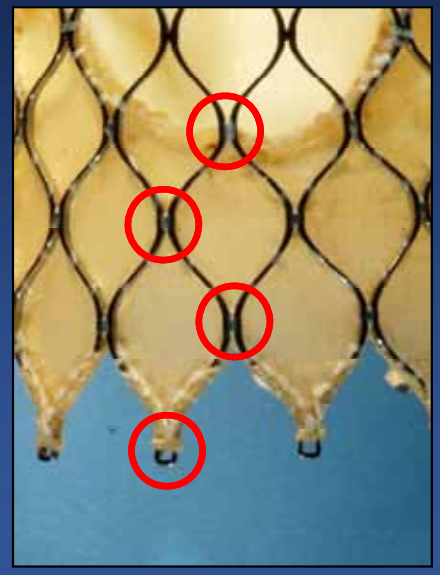




Valve Positioning

- 4-6 mm below the valve
- Too low
  - Paravalve leak
  - AV block

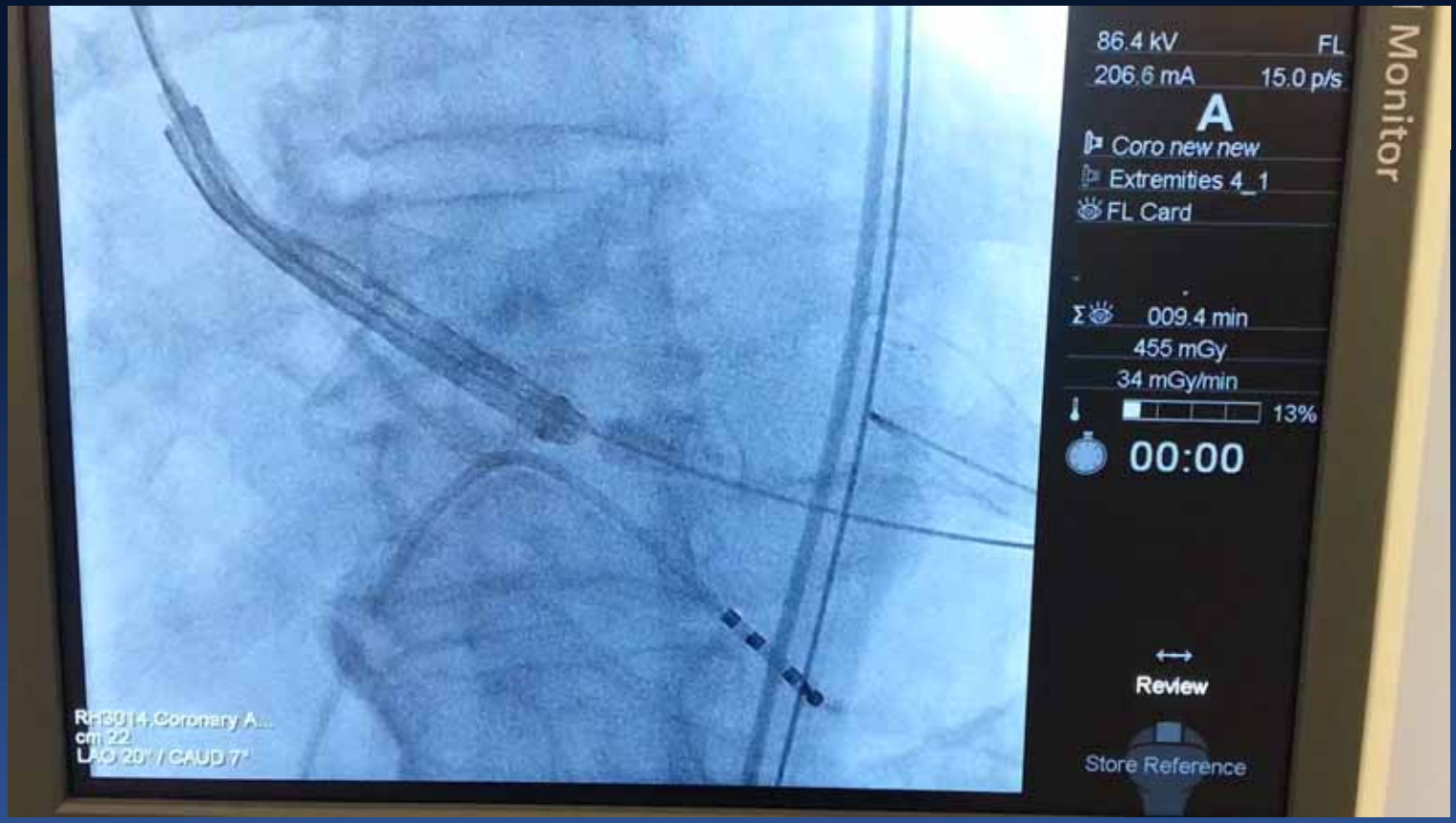




Vertical distance from node to node ~ 4 mm

Deployment

Slow deployment: no hemodynamic compromise

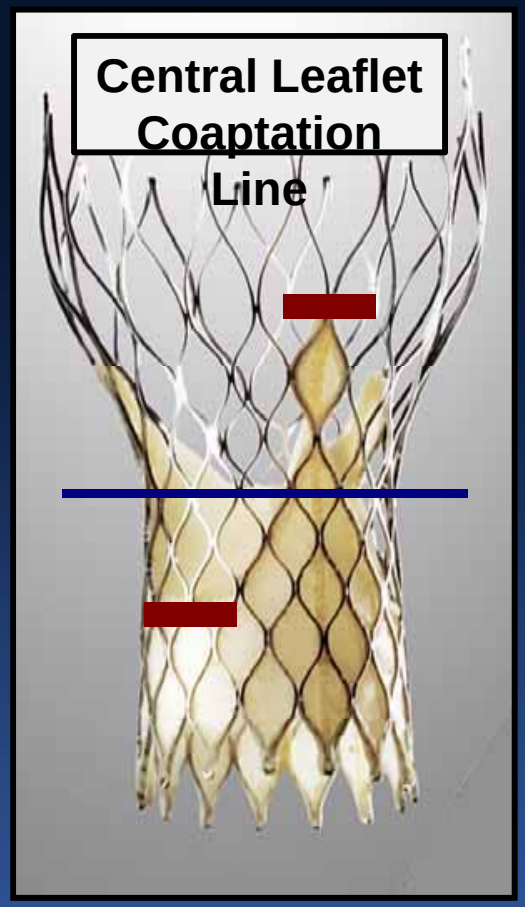


Deployment

- ***Slow release***
  - Less than 1/3
  - Hemodynamic compromise
  - Complete contact to calcific leaflet
  - Complete annular engagement
  - Not moving
  - Optional rapid pacing

Before Release

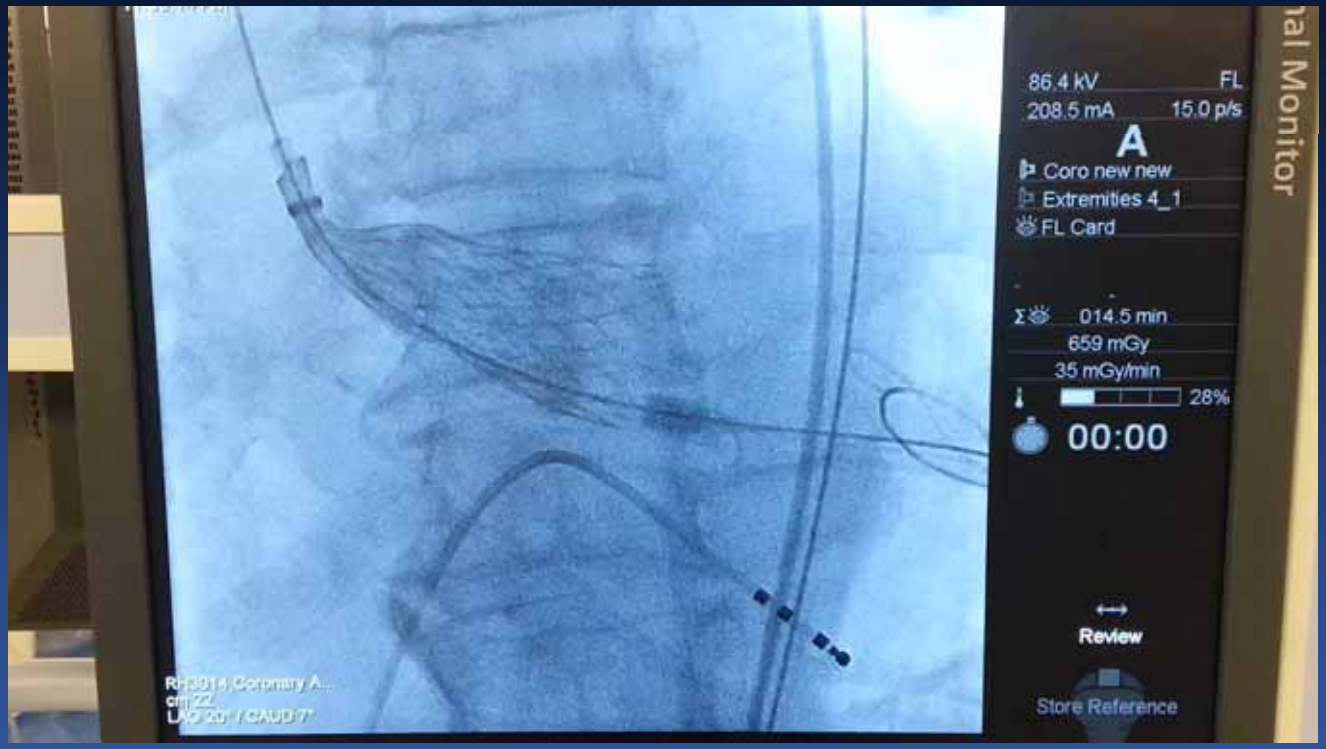
Minor adjustment is possible



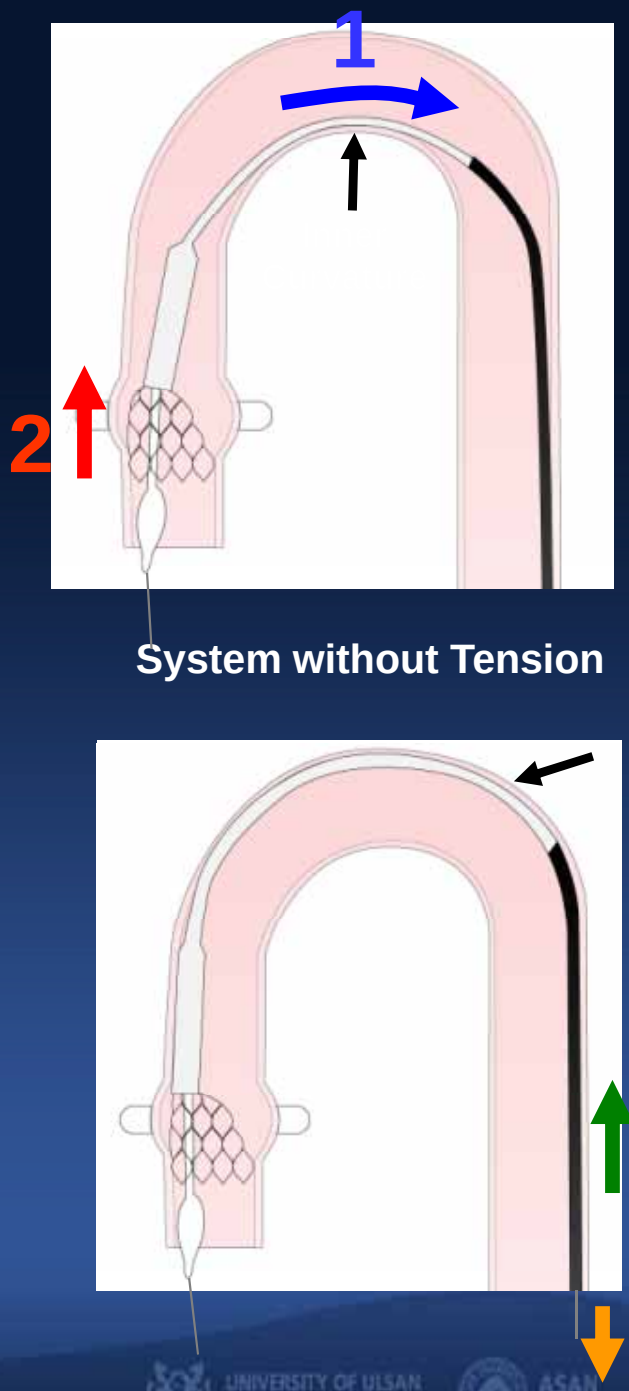
Valve becomes functional before complete release

Release

Tension release before final device release



System with Tension



After Release

Post-balloon under rapid pacing

Final

Shape of Valve

Femoral Angiogram

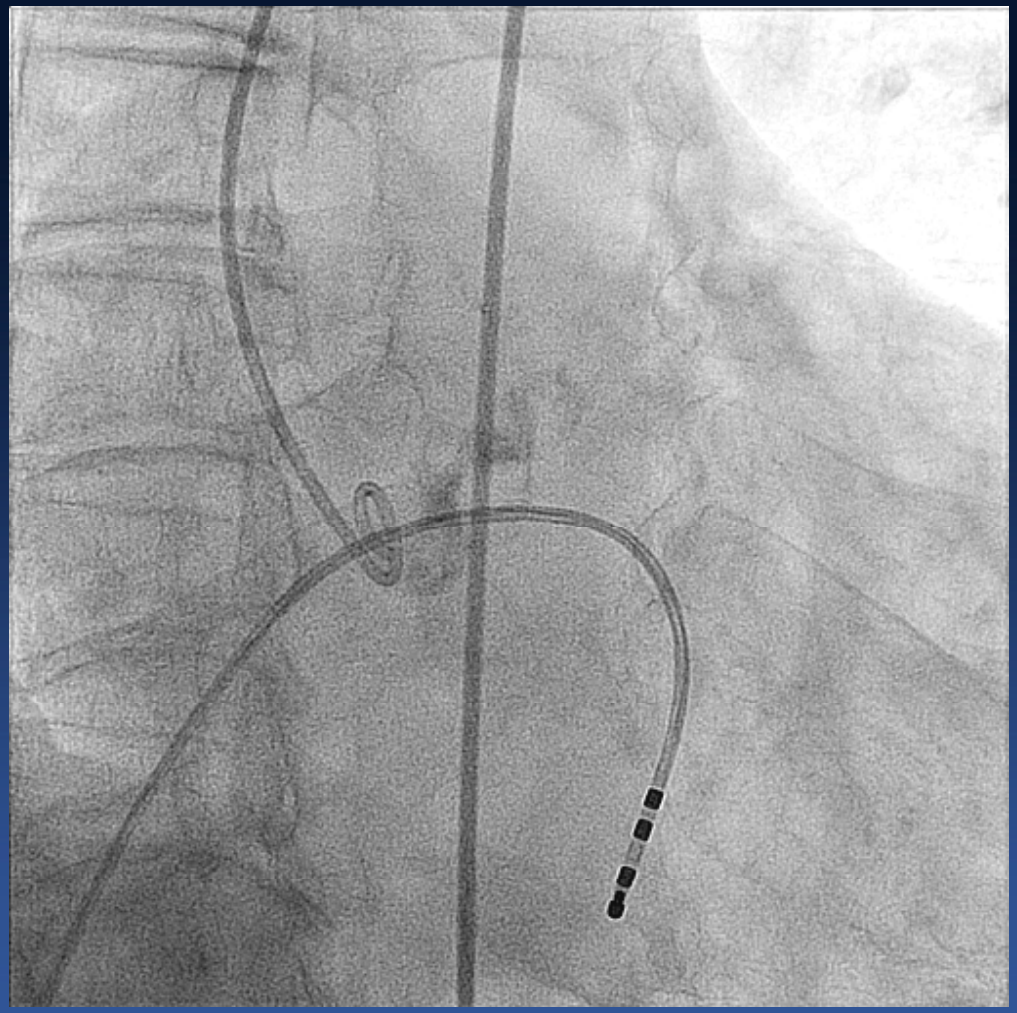
Access Clsoure

Tricuspid AS

- M/78, 166cm, 63kg, BMI 21
- AVA = 0.57 cm²
- Mean/Peak PG = 74/129 mmHg
- V max= 5.7 m/s
- Annulus by TEE = 23 mm
- EF=62%
- Annulus by CT = 24 mm
- Perimeter = 90 mm

Core Valve 31 mm

Baseline Angiograms: Tricuspid



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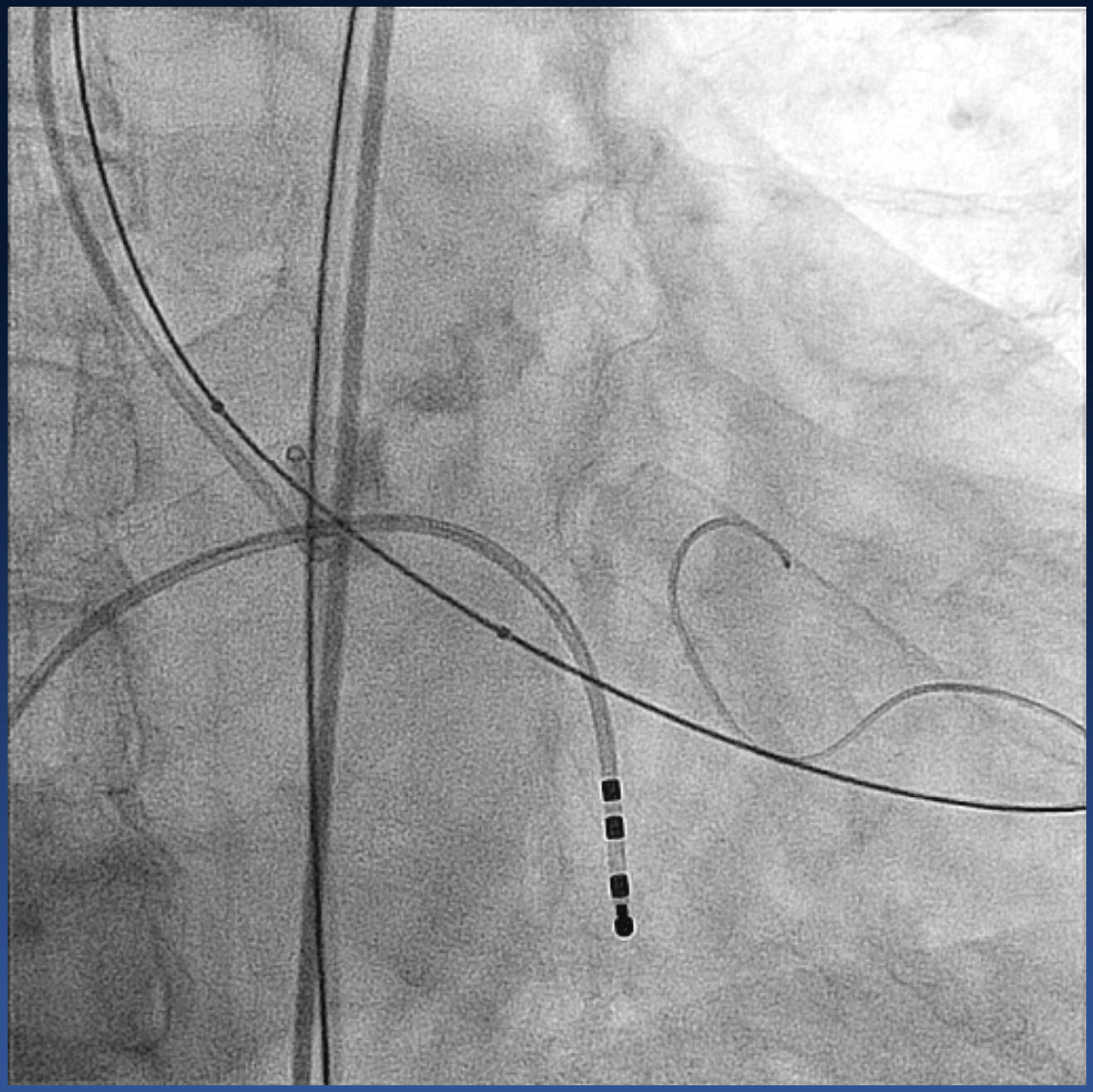
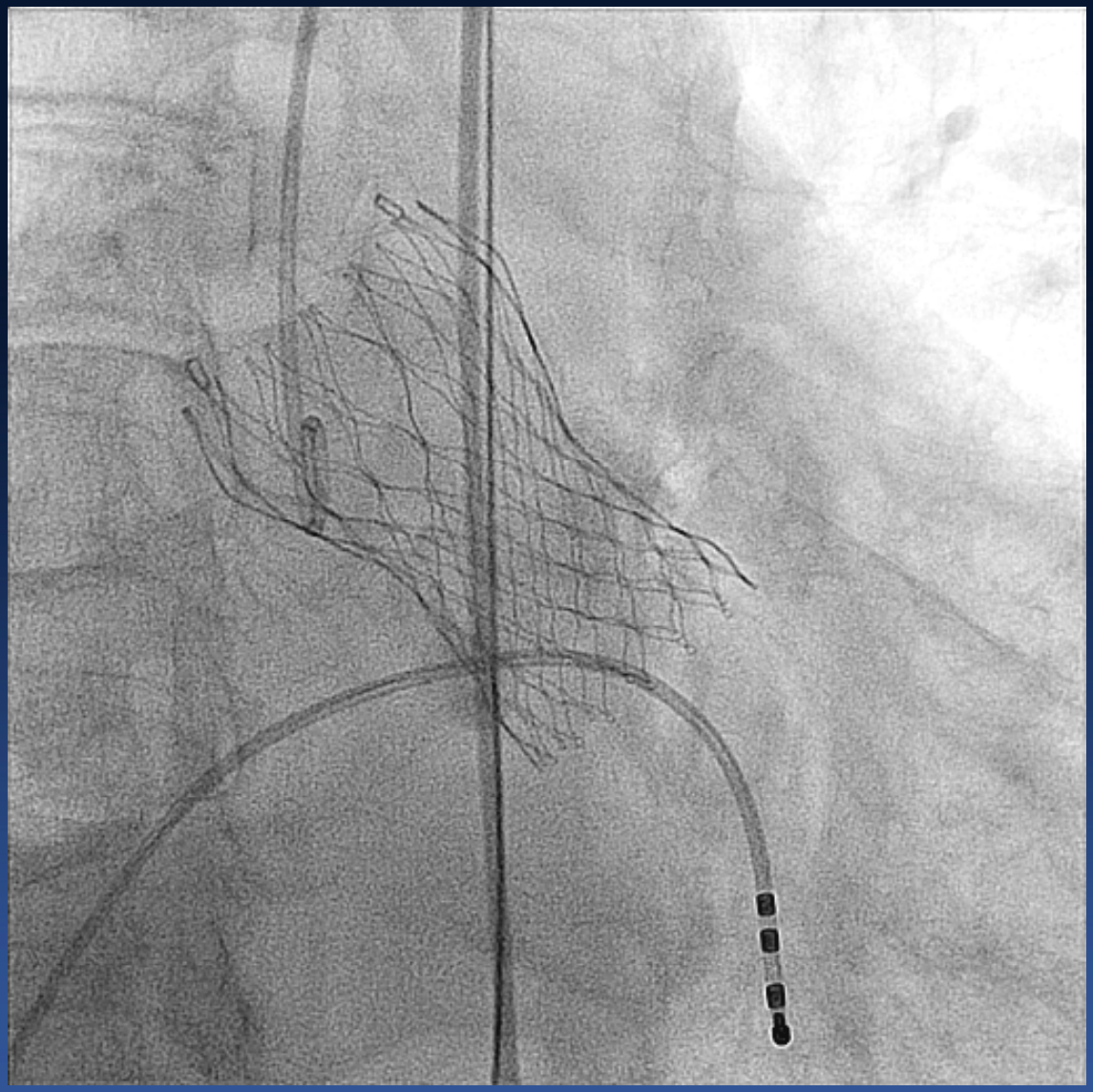
Predilation (tricuspid)



Final: Tricuspid



Core Valve is a good treatment device in TAVI for severe tricuspid or bicuspid aortic stenosis if properly performed.