



# The Transfemoral TaurusNXT TAVR System Two-Year Results of the NXT-DURA Trial

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# Disclosure of Relevant Financial Relationships

Within the prior 24 months, I have had a relevant 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**

Hanyu Medical, Shanghai

Hanyu Medical, Shanghai

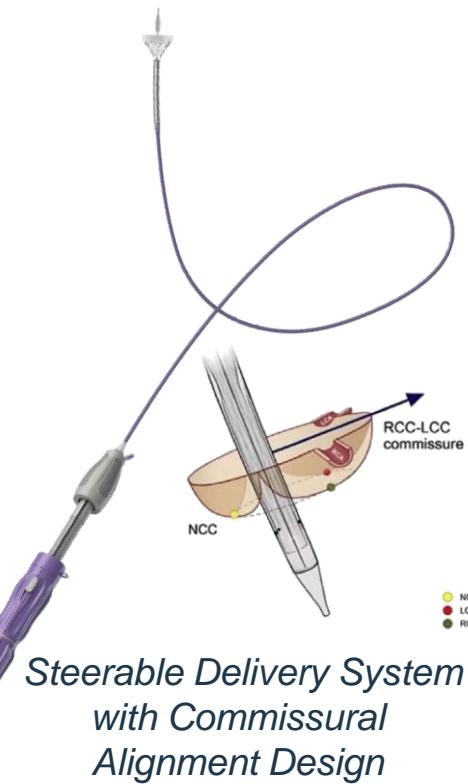
**All relevant financial relationships have been mitigated.**  
Faculty disclosure information can be found on the app

# TaurusNXT Introduction—Product and Technology Iteration



THV frame, radiopaque markers & skirt optimization

THV leaflet material science improvement



# TaurusNXT Introduction—Product and Technology Iteration

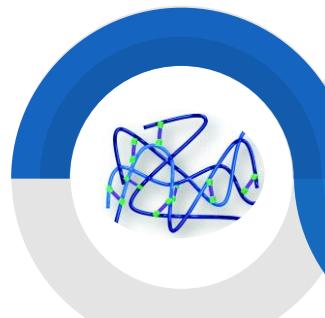
Non-aldehyde crosslinking

Decellularization technology

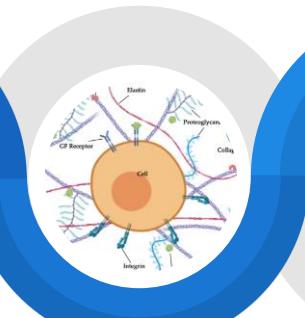
Pericardial surface trimming

Identification of pericardial fiber direction

Low-temperature vacuum freeze-drying



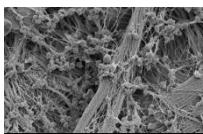
**Non-aldehyde leaflet treatment**



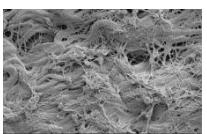
**Decellularization Technology**



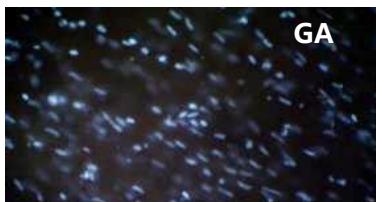
**Pericardial surface trimming**



Glutaraldehyde treated surface:  
high number of platelet adhesion & activation



Non-aldehyde treated surface:  
few number of platelet adhesion & activation



GA

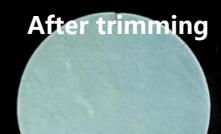
Non-GA (Non-Glutaraldehyde):  
Significantly fewer residual cells, reduced immunogenic response



Non-GA



Before trimming  
Irregular fiber orientation on surface



After trimming  
Protruding fibers removed, surface smoothness improved

# TaurusNXT—3D Steerable Design in Different Cases



Horizontal Heart



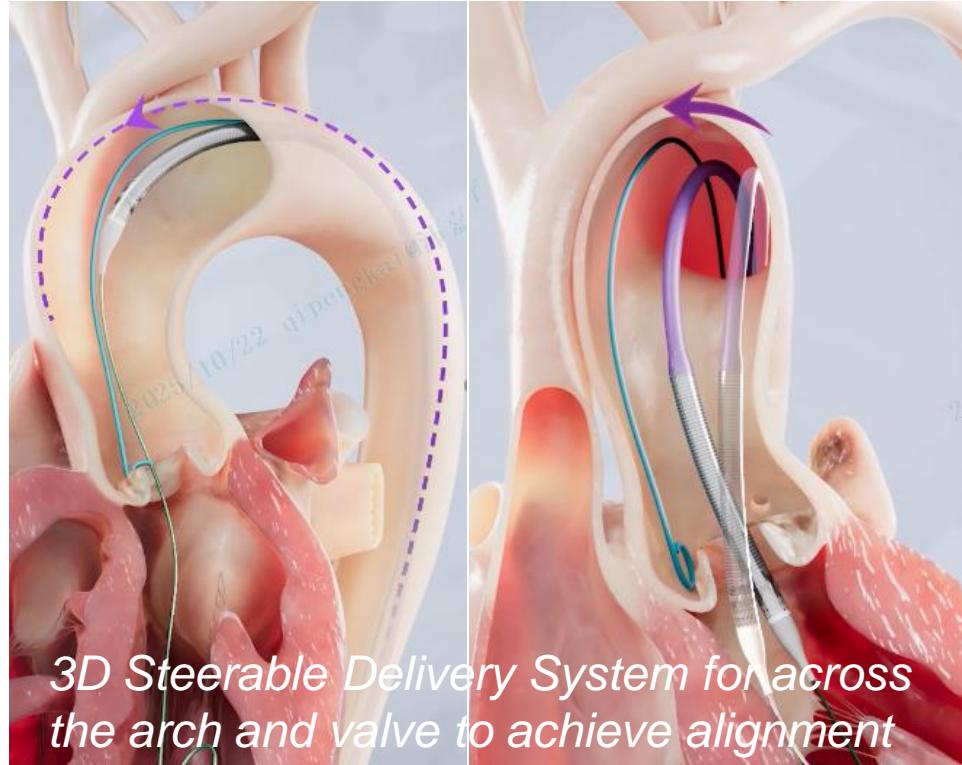
Acute Aortic Arch



Short  
Ascending Aorta



Dilated  
Ascending Aorta



# TaurusNXT Multicenter Clinical Study Data — Patient Baseline

- Prospective, multicenter, single-arm target value study
- A total of 17 centers, 150 patients enrolled and completed 1-year follow-up
- Among them, 52 patients completed 2-year follow-up
- Bicuspid valve patients (~50%) had significantly higher calcium burden and more complex anatomy (wider annular angle, larger STJ dimensions), making procedures more technically demanding

Indicator Mean (SD)	Bicuspid (n=73)	Tricuspid (n=77)	Total (n=150)
<b>Age (years)</b>	74.5±4.2	77.2±4.6	75.9±4.6
<b>Sex (n, %)</b>			
Male	35 (47.9)	43 (55.8)	78 (52.0)
Female	38 (52.1)	34 (44.2)	72 (48.0)
<b>BMI (kg/m<sup>2</sup>)</b>	22.7±3.1	23.4±3.9	23.1±3.6
<b>NYHA Class (n, %)</b>			
I	0 ( 0.0)	0 ( 0.0)	0 ( 0.0)
II	18 (24.7)	13 (16.9)	31 (20.7)
III	44 (60.3)	50 (64.9)	94 (62.7)
IV	11 (15.1)	14 (18.2)	25 (16.7)
<b>EQ-5D Score</b>	71.1±12.8	72.3±14.9	71.7±13.9
<b>STS Score (%)</b>	5.2±3.3	5.5±3.1	5.3±3.2
<b>≥Moderate Frailty (%)</b>	36 (49.3)	43 (55.8)	79 (52.7)

Indicator Mean (SD)	Bicuspid (n=73)	Tricuspid (n=77)	Total (n=150)
<b>Aortic Annulus Perimeter (mm)</b>	77.8±8.3	77.1±7.3	77.4±7.8
<b>LVOT Diameter(mm)</b>	25.7±4.6	25.3±3.7	25.5±4.2
<b>Calcium Volume (HU850)*</b>	1003.8±1527.6	584.6±931.9	789.9±1272.6
<b>LM Coronary Ostium Height (mm)</b>	15.4±3.8	13.3±3.2	14.4±3.7
<b>RCA Coronary Ostium Height (mm)</b>	16.7±3.2	16.4±3.2	16.5±3.2
<b>Annular Horizontal Angle (°) *</b>	55.4±9.1	51.4±8.0	53.4±8.8
<b>Ascending aorta diameter (Derived from Perimeter, mm)*</b>	38.3±4.5	35.9±3.9	37.0±4.4
<b>Diameter at Sinotubular junction (Derived from Perimeter, mm)*</b>	31.4±3.5	29.5±3.6	30.4±3.7
<b>Height of Sinotubular junction (mm)*</b>	22.7±4.3	21.3±2.9	22.0±3.7

# TaurusNXT Multicenter Clinical Data — Efficacy & Safety

## **VARC-3 Standardized Definitions for TAVR:**

**Technical success: 94.7% (142/150)**

**Device success: 93.3% (140/150)**

**Valve-in-valve: 4.7% (7/150)**

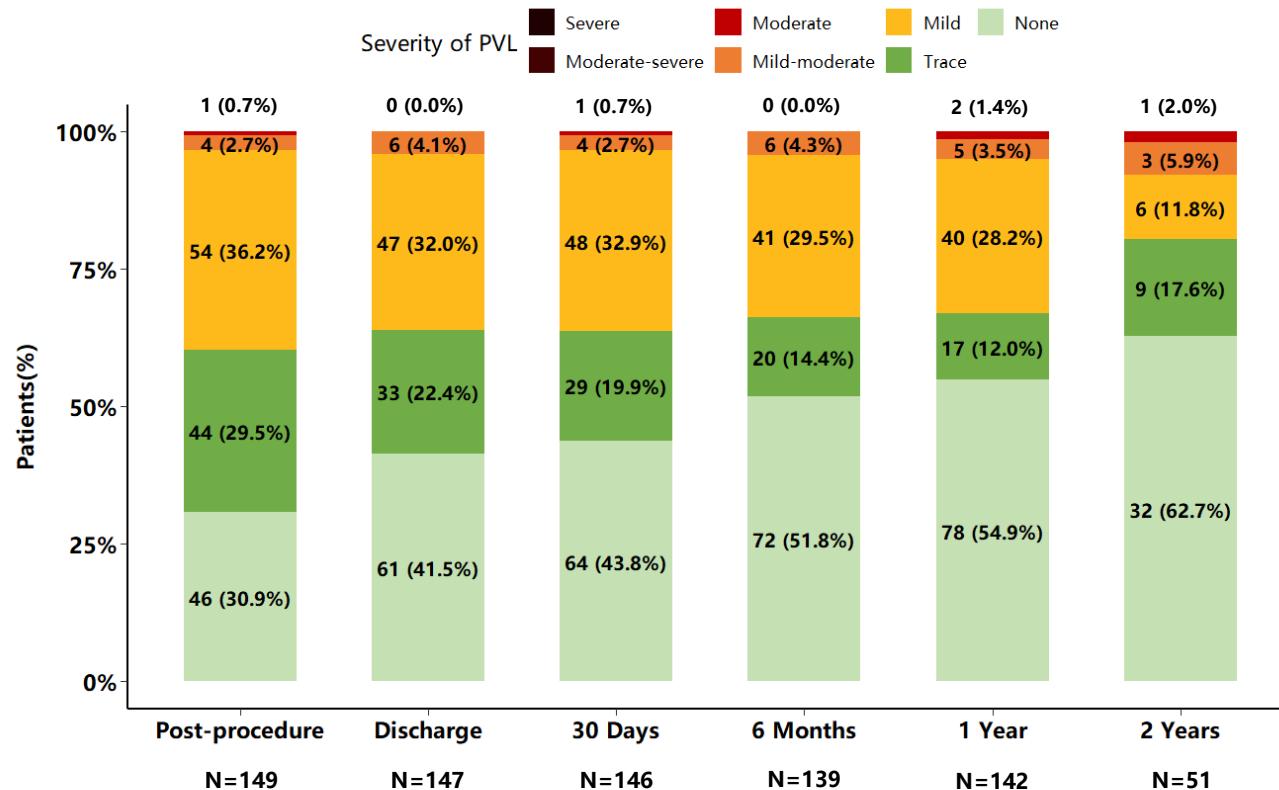
**All-cause mortality at 30 days: 2.0% (3/150)**

**All-cause mortality at 1 year: 5.3% (8/150)**

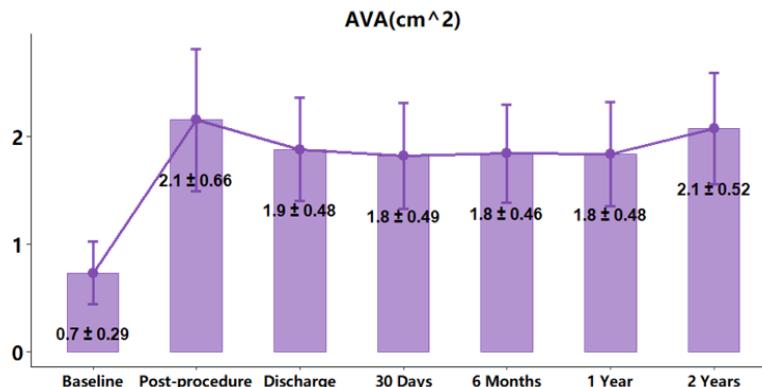
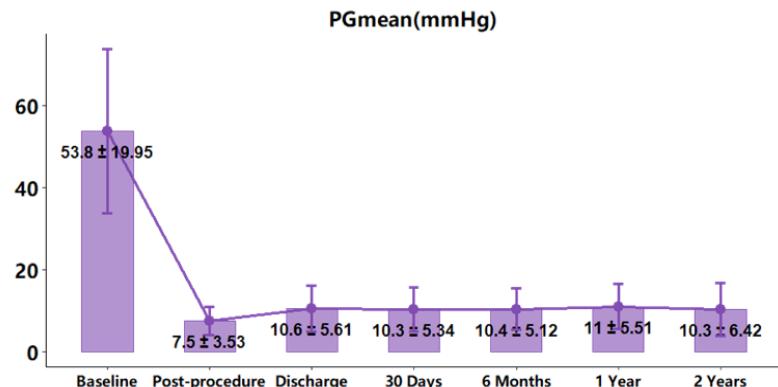
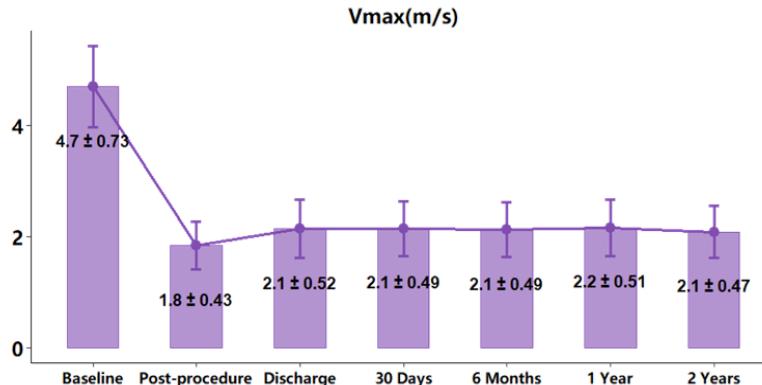
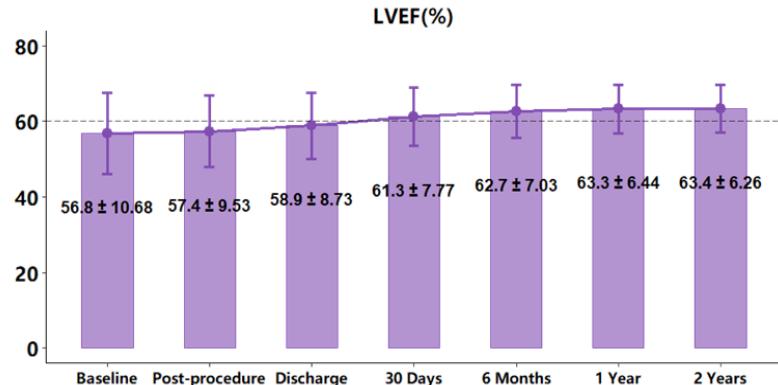
Procedural Outcomes (N = 150) (Based on VARC-3 definitions)	n/N (%)
Intraoperative death	1/150 (0.7%)
Annular rupture	0
Cardiac perforation	1/150 (0.7%)
Coronary obstruction	0
Valve embolization	0
Aortic dissection	0
Access-related vascular events	0
<b>Technical success rate</b>	<b>142/150 (94.7%)</b>
<b>Device success rate</b>	<b>140/150 (93.3%)</b>

Primary Safety Endpoints (Based on VARC-3 definitions)	30 Days (N=150)	1 Year (N=150)	2 Year (N=52*) Follow-up
<b>All-cause mortality</b>	3/150 (2.0%)	8/150 (5.3%)	10
Cardiovascular mortality	1/150 (0.7%)	1/150 (0.7%)	2
<b>All-cause stroke</b>	3/150 (2.0%)	5/148 (3.4%)	5
Disabling stroke	2/150 (1.3%)	3/148 (2.0%)	3
Non-disabling stroke	1/150 (0.7%)	2/148 (1.4%)	2
<b>VARC Type 2–4 Bleeding</b>	6/150 (4.0%)	11/149 (7.4%)	11
<b>Major vascular or structural complication</b>	1/150 (0.68%)	1/148 (0.68%)	1
<b>Stage 3–4 acute kidney injury</b>	1/150 (0.68%)	1/147 (0.68%)	1
<b>≥ Moderate aortic regurgitation</b>	1/146 (0.68%)	2/142 (1.4%)	1
≥ Moderate Intravalvular Leak	0/146 (0.0%)	1/142 (0.7%)	0
≥ Moderate Paravalvular Leak	1/146 (0.68%)	2/142 (1.4%)	1
<b>New permanent pacemaker implantation</b>	10/150 (6.7%)	10/147 (6.8%)	11
<b>Conversion to cardiac surgery</b>	1/150 (0.68%)	1/147 (0.68%)	1
<b>Bioprosthetic valve deterioration</b>	0/150 (0.0%)	0/150 (0.0%)	1
<b>Structural valve deterioration</b>	0/150 (0.0%)	0/150 (0.0%)	0

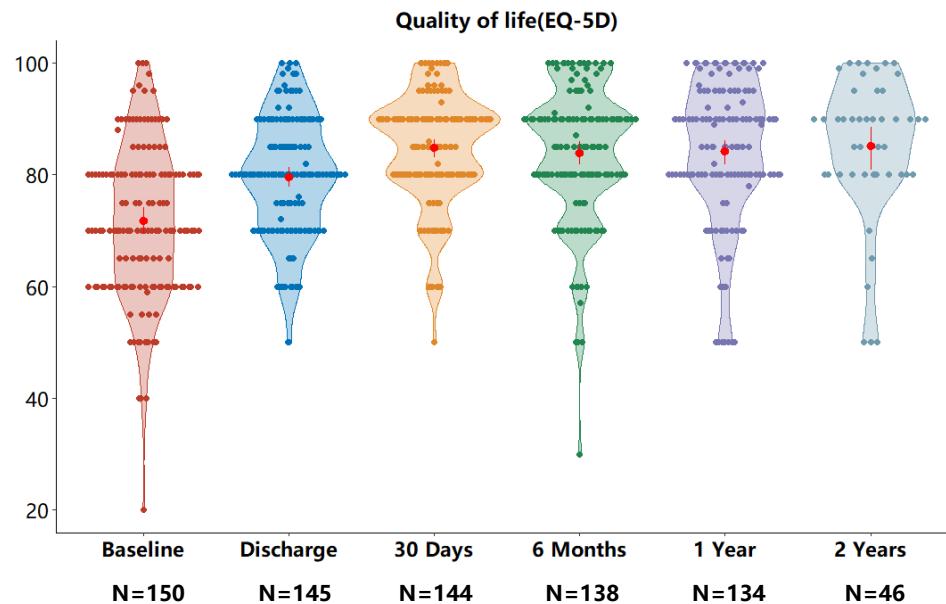
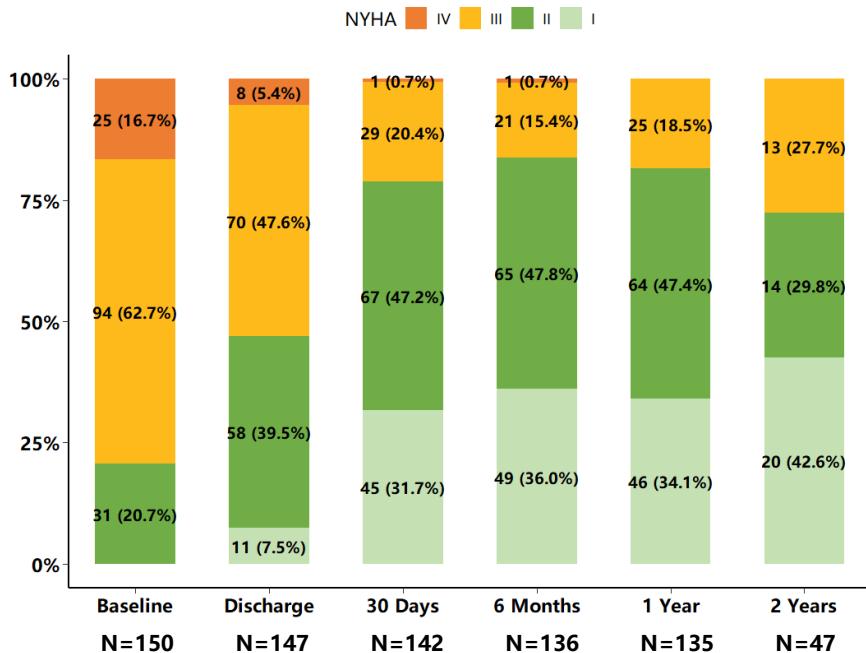
# Echo for Paravalvular Regurgitation — 2Y follow-up



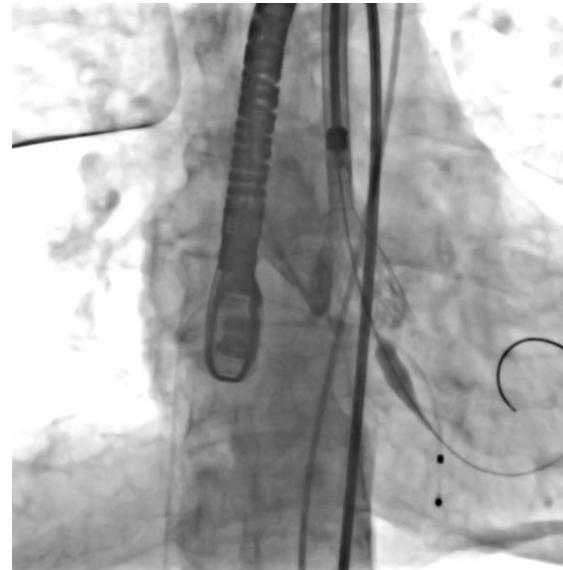
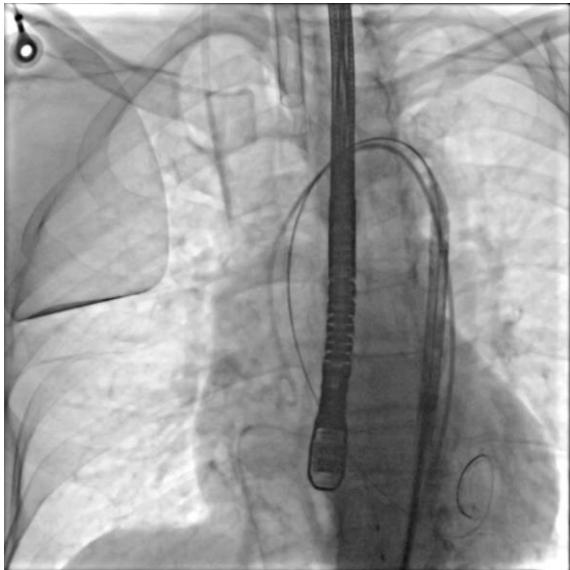
# Echo for hemodynamic — 2Y follow-up



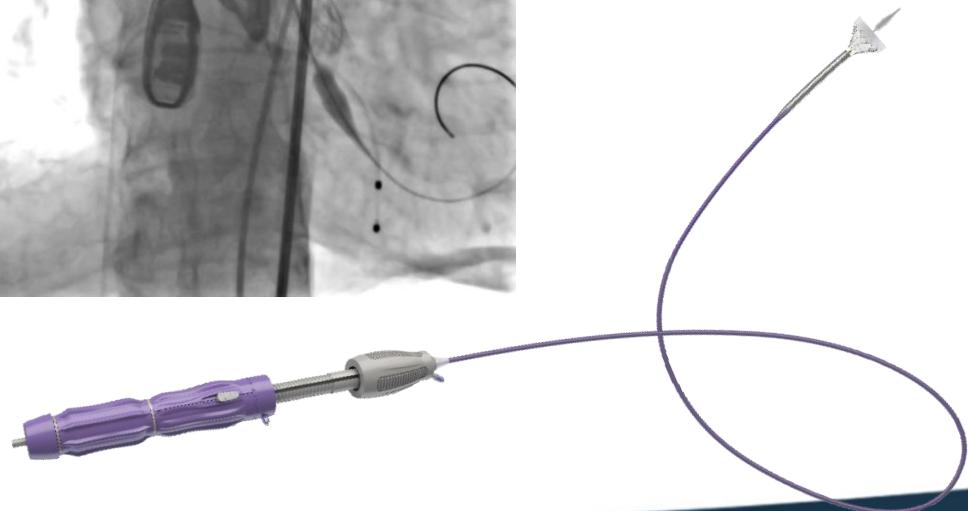
# NYHA & EQ-5D — 2Y follow-up

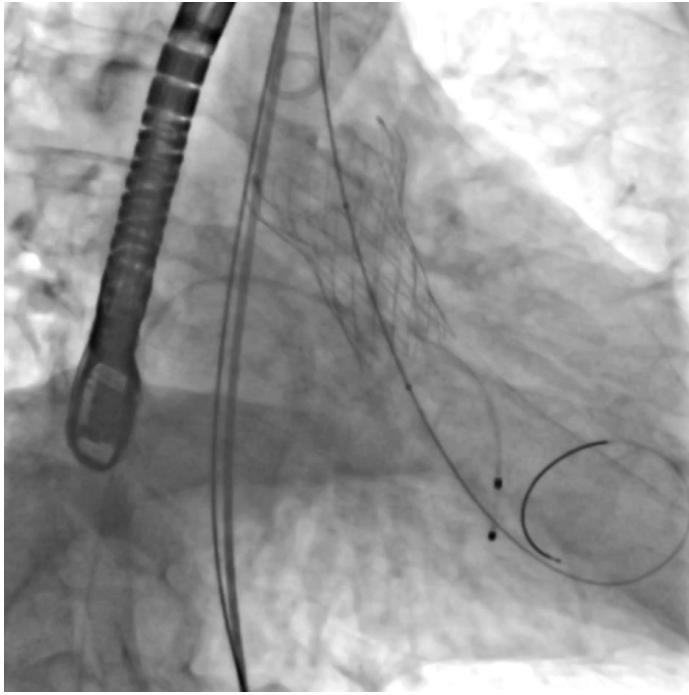


## Case demonstration

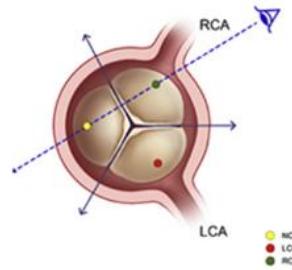
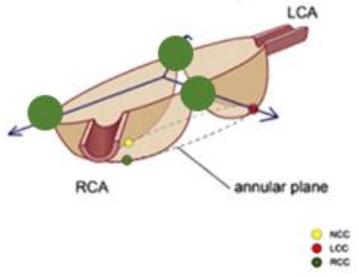


*Pre-loading TAV 23mm*





20 mm balloon



# Summary of NXT-DURA Trial (TaurusNXT)

- *This study is the first to apply non-aldehyde crosslinking “dry-valve” processing technology in an innovative TAVR system. Preliminary data demonstrate good safety and efficacy, with early outcomes superior to those of previous-generation device.*
- *The commissural alignment technique is better aligned with the lifetime management concept of self-expanding valves and facilitates future coronary re-access.*
- *Two-year follow-up results confirmed that the optimized leaflet loading, frame design, and skirt configuration of the TaurusNXT system meet clinical demands, and the overall system performance has been further validated.*
- *Ongoing long-term follow-up will continue to assess the durability and hemodynamic performance of leaflets processed with non-glutaraldehyde crosslinking technology via NXT-Dura trial.*