



MERLO 2024

JORNADAS CIENTÍFICAS Y GREIALES

del 29 nov al 1 dic

CACI



TAVI: Valve in Valve

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Resumen de historia clinica

- Femenino de 78 años de edad.
- Antecedentes y Factores de riesgo cardiovascular:
 - HTA.
 - Reemplazo valvular aórtico biológico en 2014 (St Jude n°: 21) + cirugía de revascularización miocárdica (By Pass venoso a CX).
 - Hemorragia digestiva (endoscopia y colonoscopia): pólipo benigno.
- Consulta por angor y disnea CF III.
- Laboratorio: Hto 32%, Clearance de creatinina: 40 ml/min.
- Ecocardiograma:
 - Prótesis biológica en posición aortica con fibrosis y cambios degenerativos (Velocidad: 4.2 m/seg, gradiente medio: 42 mmHg, insuficiencia aortica leve).
 - PSVD: 55 mmHg.
- Cinecoronariografía:
 - TCI: lesión leve, **DA: lesión severa y segmentaria**. CX: lesión severa ostial con By Pass normo funcionante. CD: lesión leve a moderada.
- Tratamiento:
 - Aspirina 100 mg/dia, Losartan 50 mg/dia, Atorvastatina 40 mg/dia, Carvedilol 6,25 mg cada 12 hs, Clopidogrel 75mg/dia, Rivaroxaban 15 mg.

EUROSCORE II

Patient-related factors

age: 78
biological sex: Female
chronic lung disease: no
extracardiac arteriopathy: no
poor mobility: no
previous cardiac surgery: yes
active endocarditis: no
critical preoperative state: no
renal impairment: severe (CC < 50 ml/min)
diabetes on insulin: no

Cardiac-related factors

CCS angina class 4: no
LV function: good (LVEF > 50%)
recent MI: no
pulmonary hypertension: severe (PA systolic > 55)
NYHA class: III

Operation-related factors

surgery on thoracic aorta: no
urgency of operation: elective
weight of operation: 2 procedures

EuroSCORE II

19.97 %

Based on the information you have provided... If 100 people with a similar condition had a similar operation, 19 to 20 may be expected to die, whereas 80 to 81 would be expected to survive. Your EuroSCORE is 19.97.

STS SCORE

Procedure Type: CABG + AVR		Clinical Summary	
PERIOPERATIVE OUTCOME	ESTIMATE %	Planned Surgery:	CABG + AVR, Elective, ReOp#1 cardiovascular surgery
Operative Mortality	18.7%	Demographics:	78 year old, female, 60kg, 149cm, BMI: 27 kg/m ²
Morbidity & Mortality	39.9%	Lab Values:	Creatinine: 1.3 mg/dL, Hematocrit: 32%, WBC Count: 5.5 10 ³ /μL, Platelet Count: 190000 cells/μL
Stroke	3.67%	Risk Factors / Comorbidities:	Hypertension
Renal Failure	14.8%	Cardiac Status:	Chronic heart failure, NYHA Class III, Ejection Fraction = 55%
Reoperation	7.71%	Coronary Artery Disease:	3 vessels diseased, Proximal LAD Stenosis ≥ 70%, Stable Angina
Prolonged Ventilation	29.2%	Valve Disease:	Aortic Stenosis, Mild AR, Severe TR
Deep Sternal Wound Infection	0.275%	Prev. Cardiac Interv:	Previous CABG
Long Hospital Stay (>14 days)	26.3%		
Short Hospital Stay (<6 days)*	10.4%		



CONDUCTA

Se presenta en heart team:

- *Tratamiento quirúrgico*



- **Tratamiento endovascular**

1° paso: ATC a DA.

2° paso: TAVI (valve in valve).





AngioTC protocolo TAVI: planning

ANNULUS

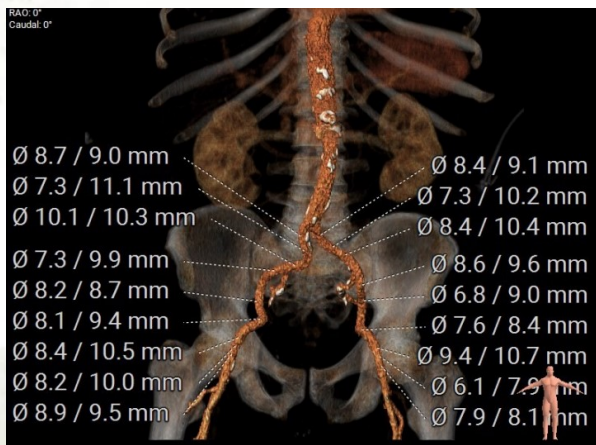
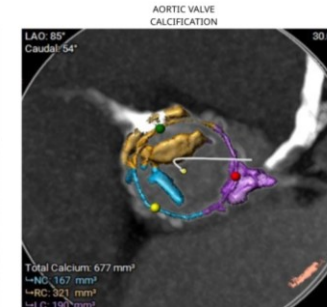
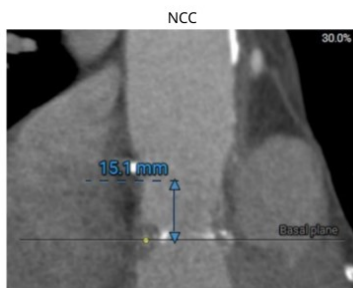
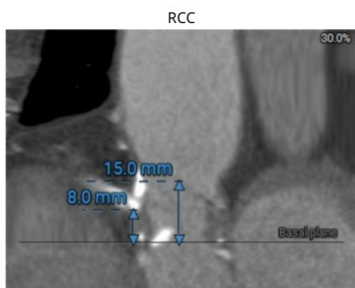
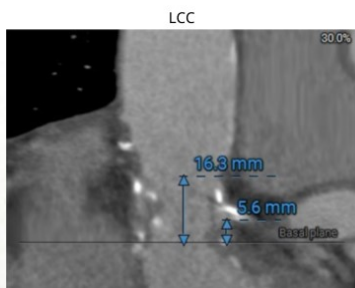
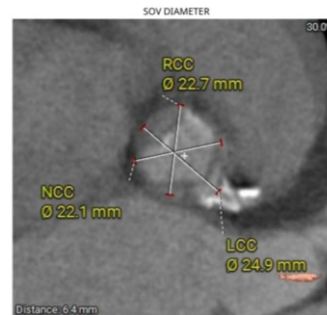
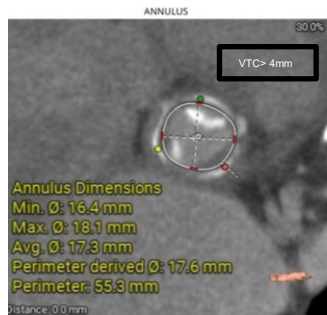
Diameter (mm)	16.4	x	18.1	,	17.3
	Min		Max		Mean
Perimeter (mm)	55.3		Derived Ø (mm)		17.6
Area (mm ²)	241.1		Derived Ø (mm)		17.5

LVOT

Diameter (mm)	18.3	x	22.7	,	20.5
	Min		Max		Mean
Perimeter (mm)	65.1		Derived Ø (mm)		20.7
Area (mm ²)	330.5		Derived Ø (mm)		20.5



Max Ascending Aorta Diameter (mm)	29.8	
Sinotubular Junction Diameter (mm)	18.7	x 21.0
	Min	Max
Sinus of Valsalva Diameter (mm)	24.9	22.7 22.1
	LCC	RCC NCC
Sinus of Valsalva Height (mm)	16.3	15.0 15.1
	LCC	RCC NCC
Coronary Ostia Height (mm)	5.6	8.0
	Left	Right



Acceso femoral adecuado

Valve Size Selection		Evolut™ PRO Bioprosthesis			Evolut™ R Bioprosthesis
Size		23 mm	26 mm	29 mm	34 mm
Annulus Diameter	17.6 mm	18-20 mm	20-23 mm	23-26 mm	26-30 mm
Annulus Perimeter†	55.3 mm	56.5-62.8 mm	62.8-72.3 mm	72.3-81.7 mm	81.7-94.2 mm
Sinus of Valsalva Diameter (Mean)	23.2 mm	≥ 25 mm	≥ 27 mm	≥ 29 mm	≥ 31 mm
Sinus of Valsalva Height (Mean)	15.5 mm	≥ 15 mm	≥ 15 mm	≥ 15 mm	≥ 16 mm
Oversizing Percentage		31%	48%	65%	93%

Tamaño valvular



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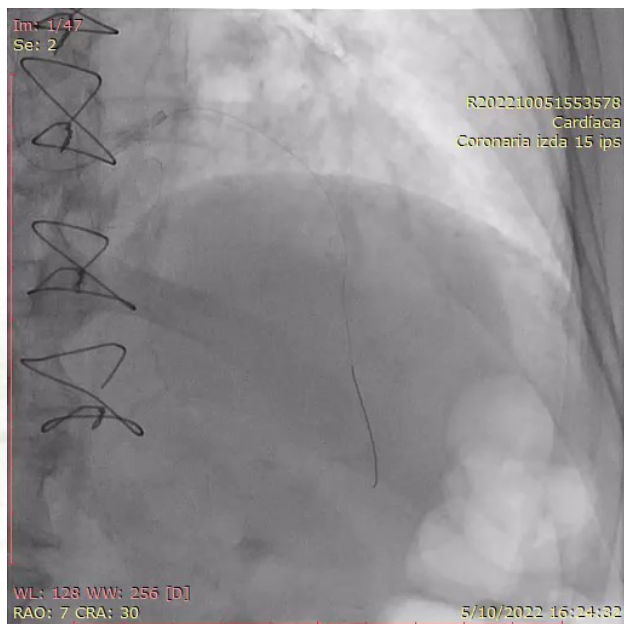
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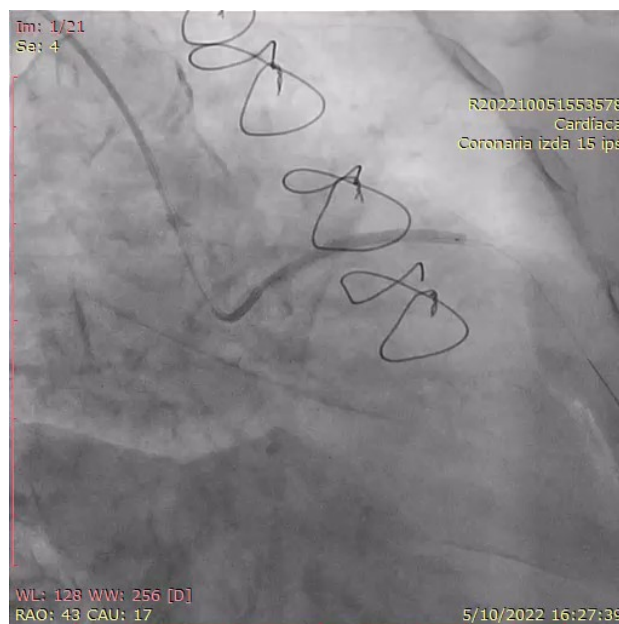


1º paso. ATC a DA

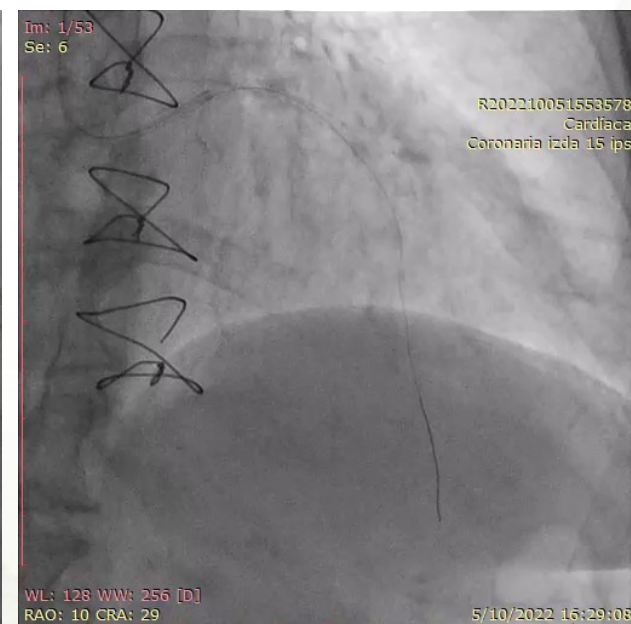
- Acceso radial derecho: Introdutor 6 French.
- Catéter Guía VL 3.5 mm.



Cuerda 0.014" Floppy a DA



Stent farmacológico 3.0 x 38 mm

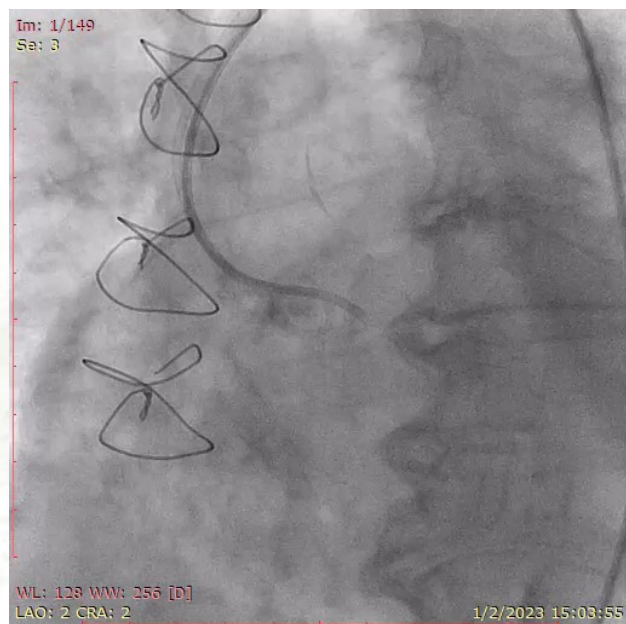


Resultado final

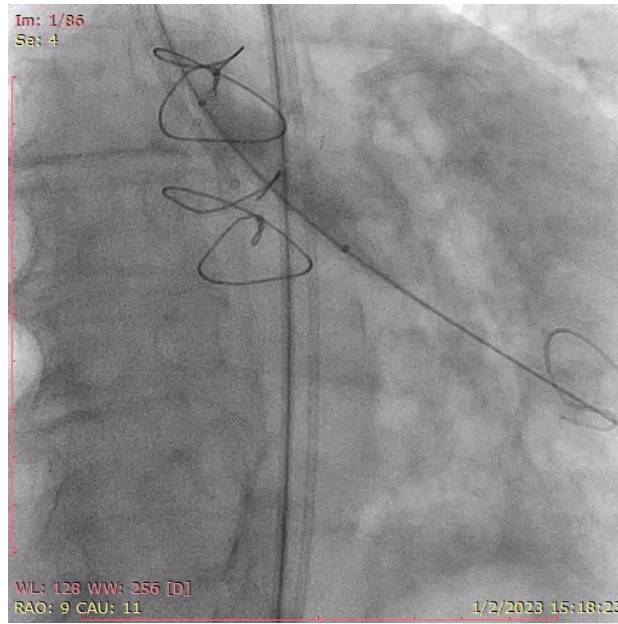


2º Paso. TAVI: VALVE IN VALVE Procedimiento

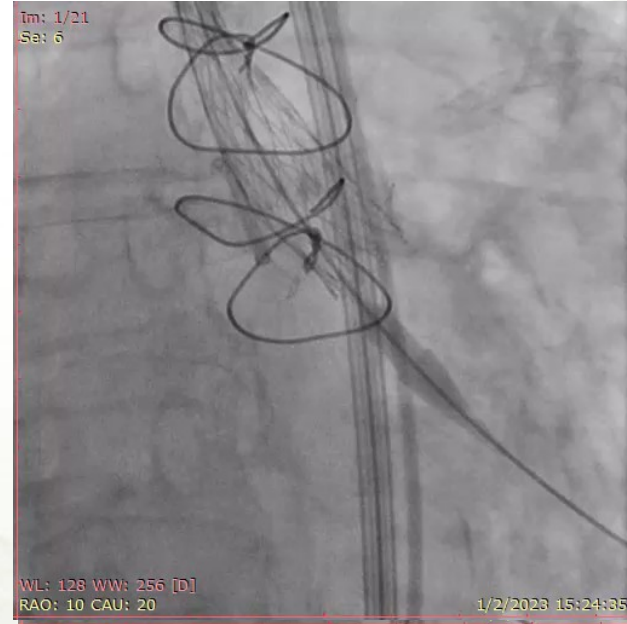
- Acceso femoral derecho: Introdutor 11 French (Terumo) / Proglide.
- Acceso femoral izquierdo: Introdutor 6 French (Terumo) / Pig Tail (control angiográfico).



Catéter AL2 / Cuerda recta 260 cm



Predilatación con balón 18 x 40 mm



Posicionamiento Válvula Evolut R nº 23



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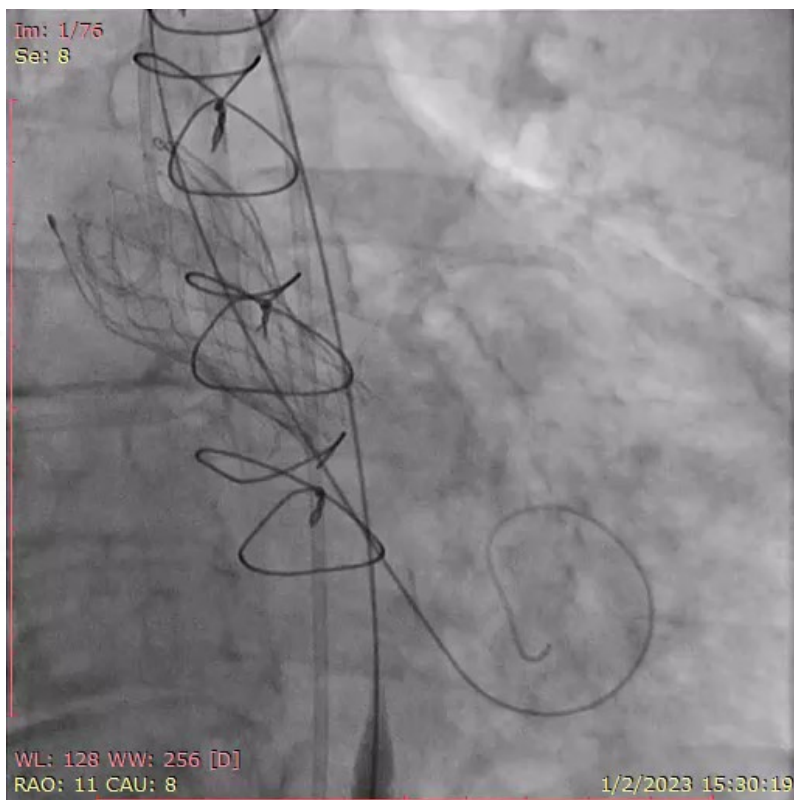
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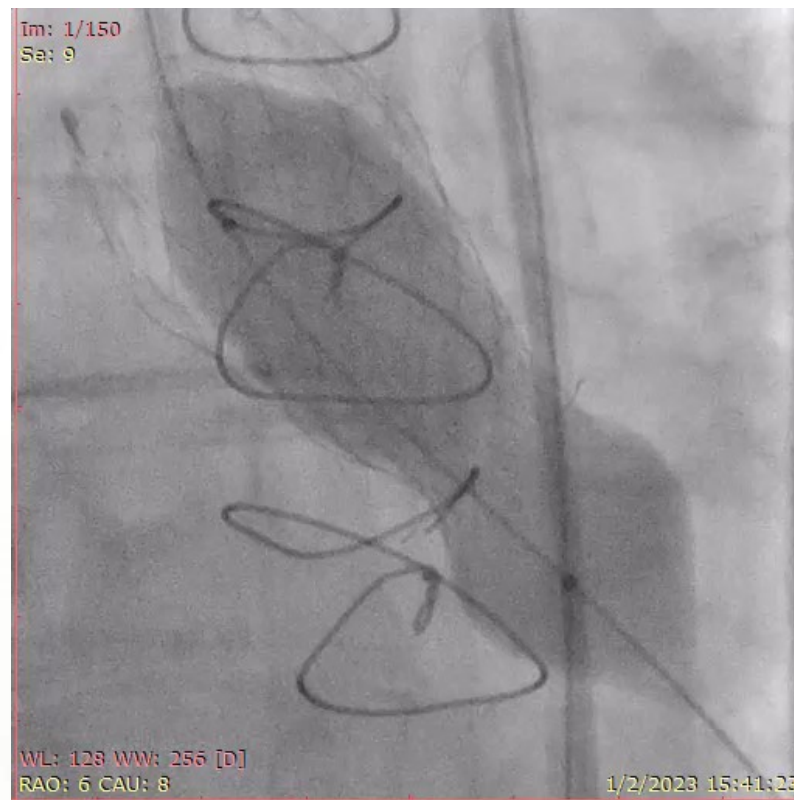
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2° paso. TAVI: VALVE IN VALVE Procedimiento



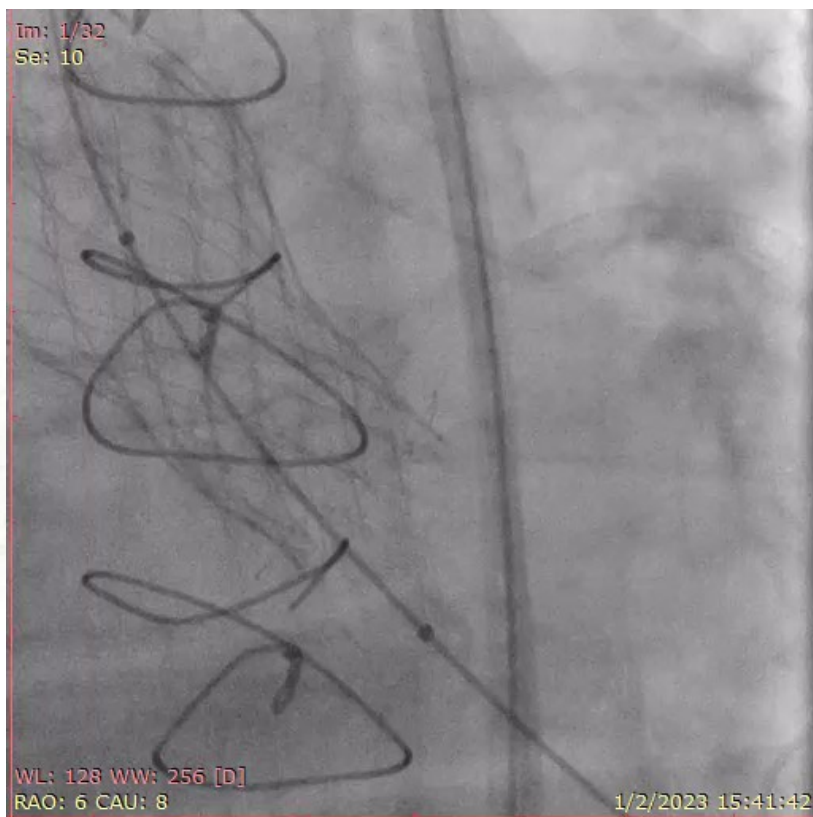
Gradiente transvalvular de 35 mmHg /sin Leak



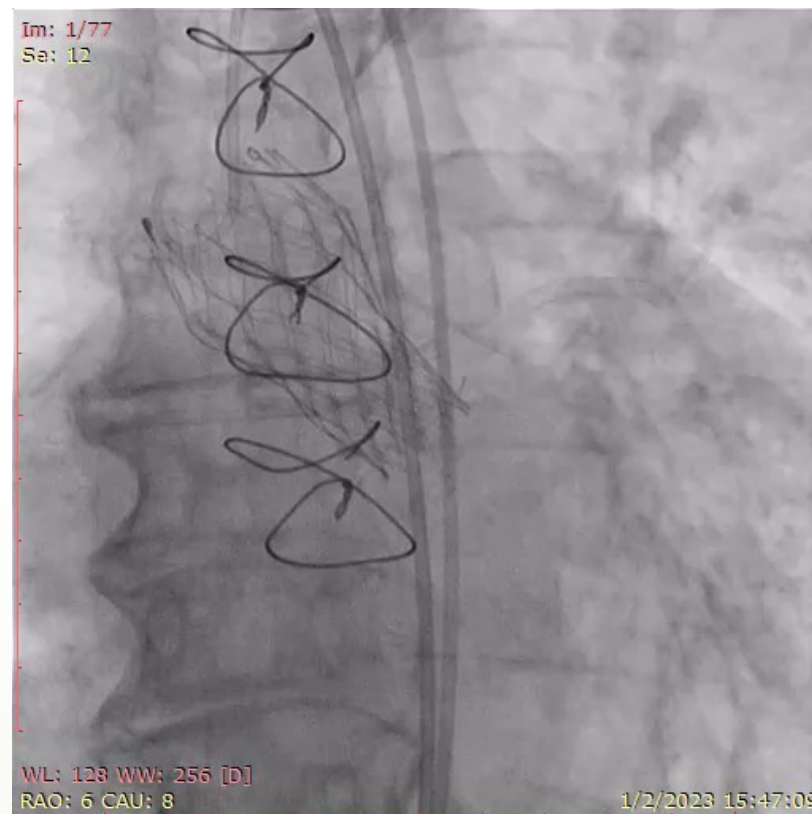
Postdilatacion con balon Kevlar 22 x 40 mm
Cracking anular



2° paso. TAVI: VALVE IN VALVE Resultado final



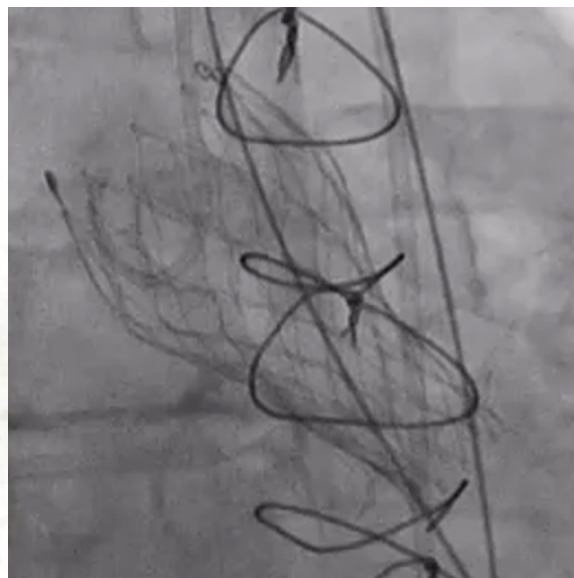
Cracking anular



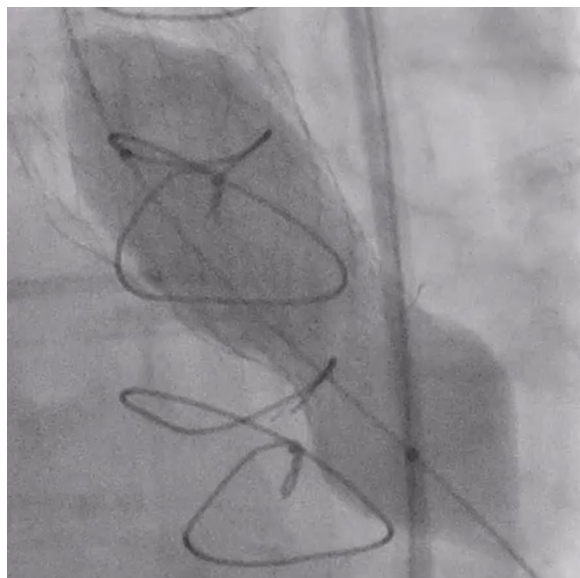
Gradiente transvalvular de 10 mmHg, sin Leak.



2° paso. TAVI: VALVE IN VALVE Resultado post cracking



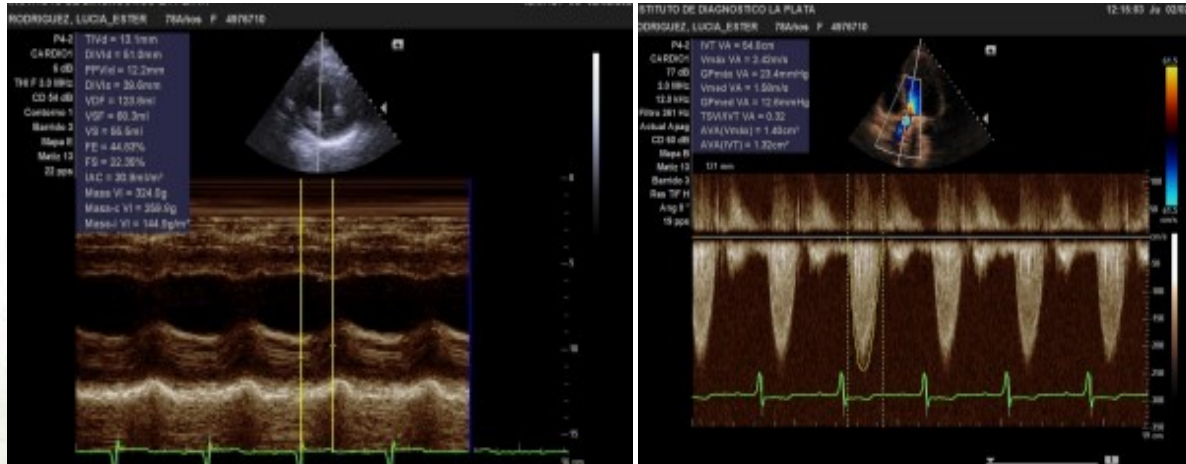
GradPre: 35 mm



GradPost: 10 mm

2° paso. TAVI: VALVE IN VALVE Evolución

Ecocardiograma control



Conclusiones:

- La función sistólica del VI se encuentra conservado (Fey: 60%).
- Prótesis valvular aortica normofuncionante (gradiente pico de 6.9 mmHg), sin HTP.

Evolución favorable.

Alta a las 24 hs.

Actualmente en seguimiento por consultorios de cardiología asintomática.

Tratamiento: Rivaroxabán 15 mg/día.



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Mensajes finales

- El Valve in Valve siempre debe planificarse en Heart Team.
- Las válvulas autoexpandibles son seguras y eficaces para el tratamiento del Valve in Valve aórtico.
- El Cracking valve debe ser mandatorio en los casos de mismatch aórtico siendo más seguro realizarlo post implante valvular.