



# Reemplazo Valvular Aórtico Percutáneo Transapical

Reporte de caso

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Sanatorio Otamendi, Argentina

SOLACI – Diciembre 2014 – Montevideo, Uruguay

# Antecedentes Personales

- Mujer – 83 años
- Hipertensión arterial, dislipemia
- 1992: Reemplazo mitral con prótesis mecánica
- Enfermedad coronaria: 3 stents (último 2012)
- Estenosis Aórtica Severa
- ✓ Sintomática: Múltiples internaciones por ICC

# Medicación Habitual

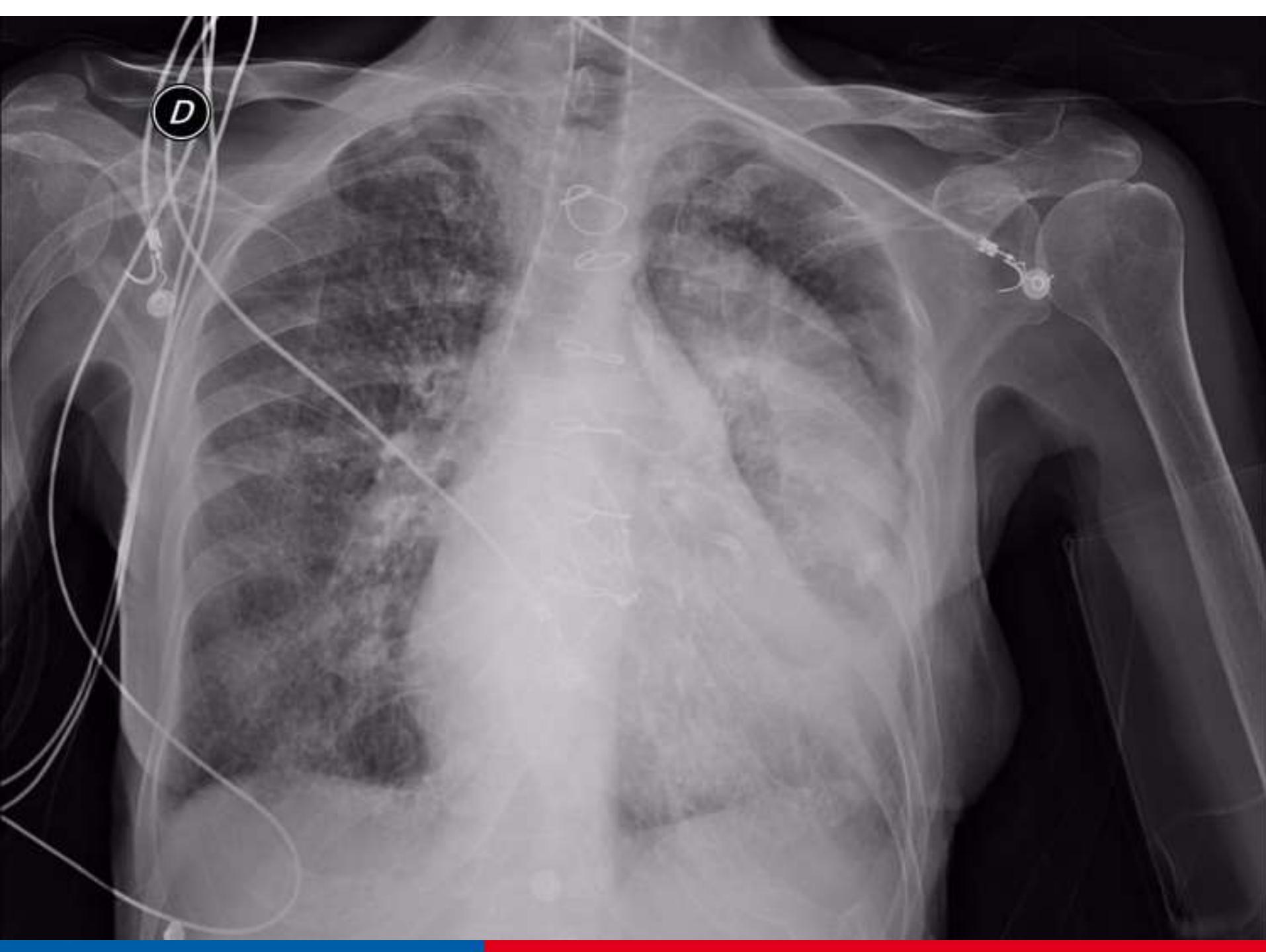
- Atenolol 50 mg cada 12hs
- Aspirina 100 mg
- Atorvastatina 10 mg
- Acenocumarol 2 mg
- Sertralina 50 mg

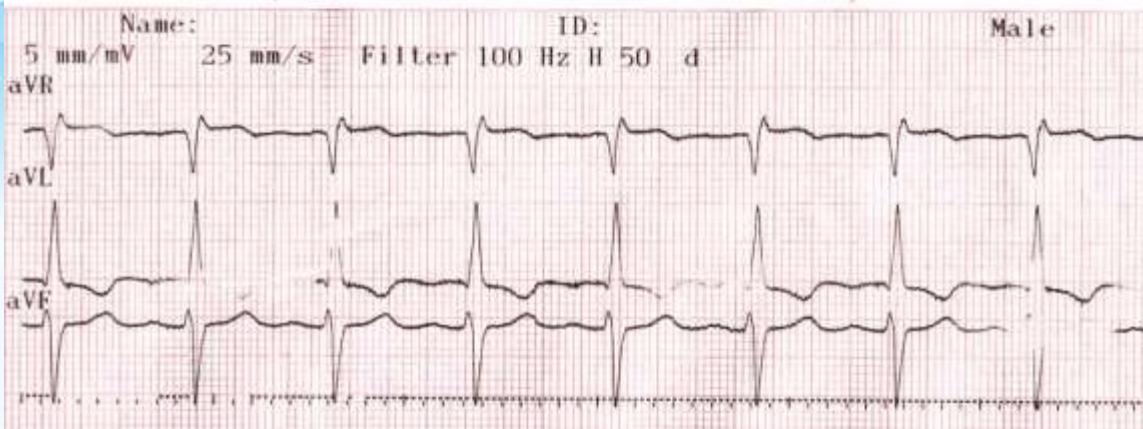
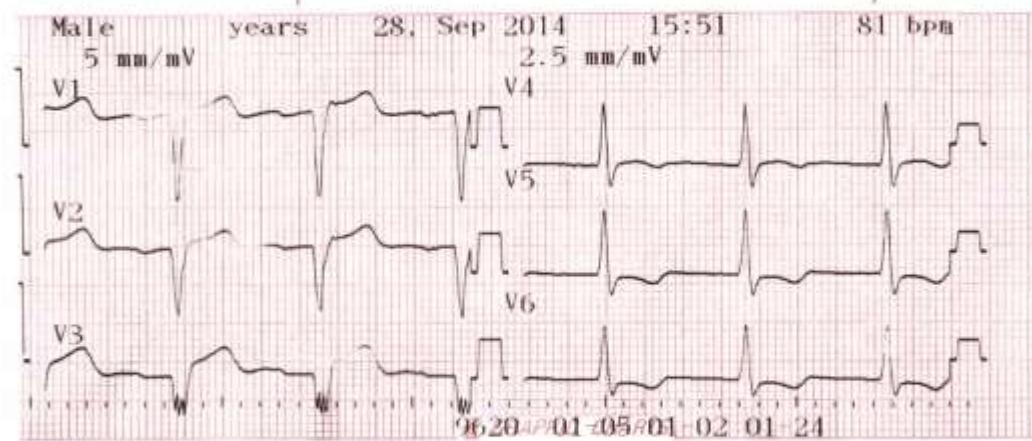
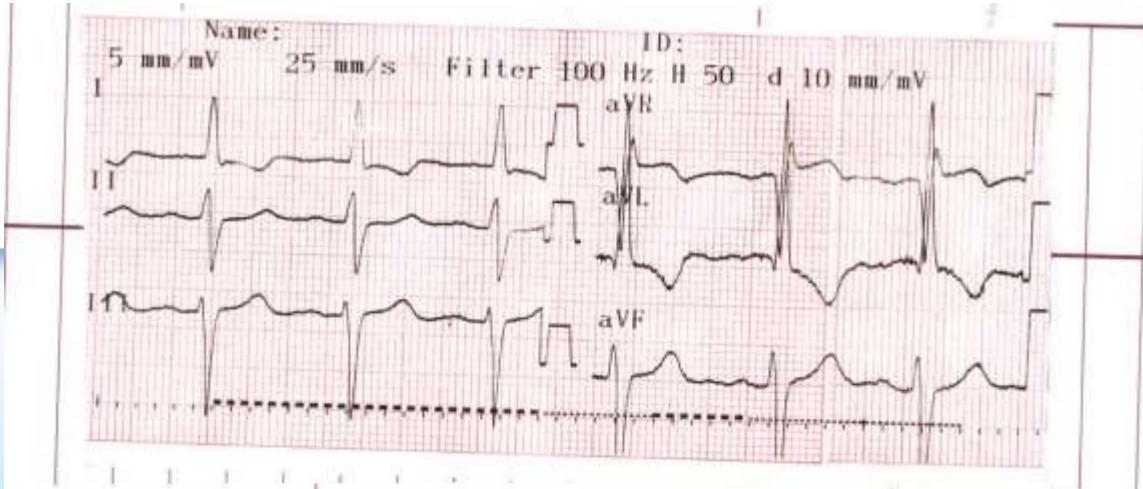
# Enfermedad Actual

- Disnea progresiva de CF NYHA II a IV de 1 mes de evolución
- Asociado a:
  - ✓ Disnea paroxística nocturna
  - ✓ Ortopnea
  - ✓ Edemas en miembros inferiores
- Exacerbación 48hs previas a la consulta

# Examen físico

- Lúcida, normotensa, afebril
- Taquipneica, rales crepitantes bilaterales hasta vértice
- Ingurgitación yugular 3/3.
- Reflujo hepatoyugular positivo

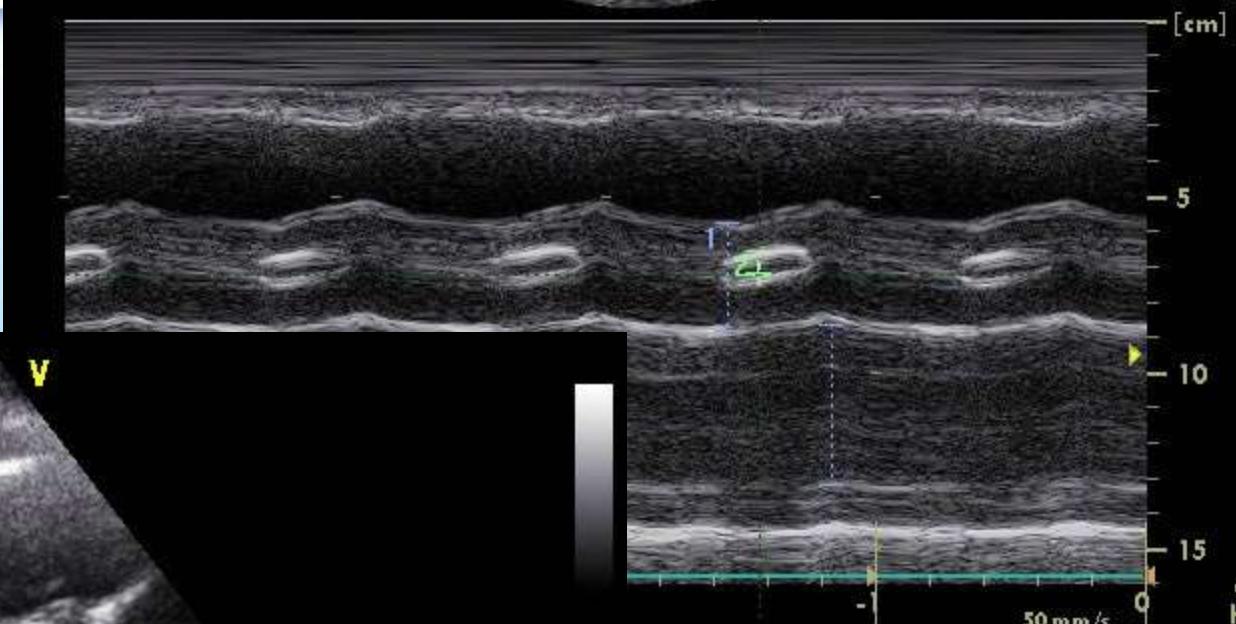




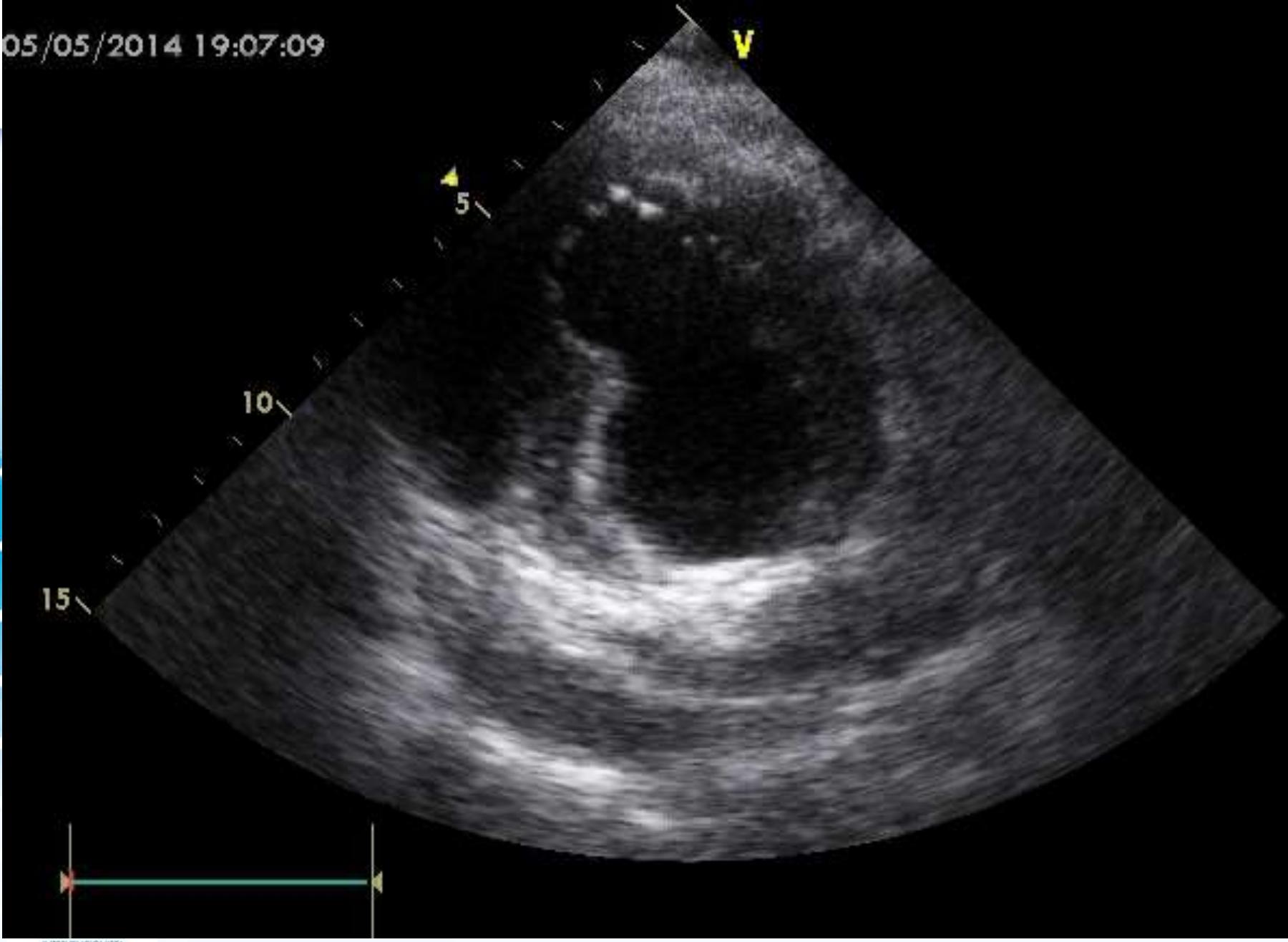
# Ecocardiograma Transtorácico

- DDVI: 48 SIVD: 15 PP: 13 AI: 45
- Akinesia apical y septum medio anterior
- Función sistólica VI severa. FEY 27%
- Cavidades derechas normales
- Prótesis mecánica normoinserta
- Estenosis Aórtica Severa
- ✓ Á: 0.5 – GP: 57 – GM: 38

2 Ao Diam 0.62 cm  
1 Ao Diam 3.06 cm  
LA Diam 4.54 cm  
LA/Ao 1.48



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LVEF MOD A4C 27.16 %  
SV MOD A4C 21.05 ml  
2 LVLs A4C 6.53 cm  
LVESV MOD A4C 56.46 ml  
1 LVLd A4C 7.33 cm  
LVEDV MOD A4C 77.50 ml



4

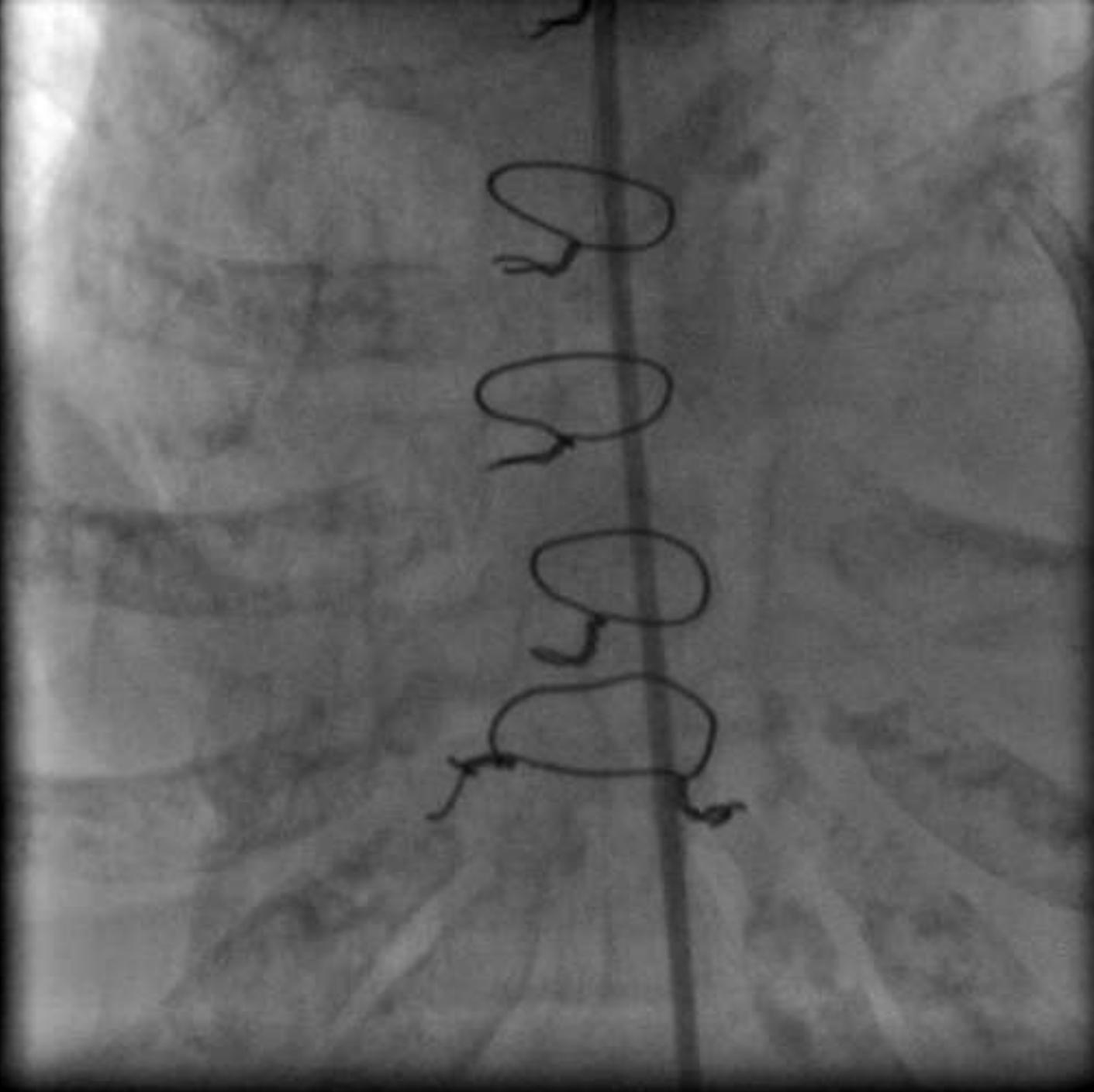
<b>AVA Vmax</b>	0.48 cm/s
<b>AVA (VTI)</b>	0.38 cm²/s
<b>AV Vmax</b>	3.48 m/s
<b>AV Vmean</b>	2.52 m/s
<b>AV maxPG</b>	48.50 mmHg
<b>AV meanPG</b>	28.49 mmHg
<b>AV VTI</b>	96.23 cm
<b>AV Env.Ti</b>	382.62 ms
<b>HR</b>	69.36 BPM
<b>AV SV</b>	295.17 ml
<b>AV CO</b>	20.47 l/min

# Interpretación Diagnóstica

- ICC Valvular secundaria a EA Severa
  - Disfunción VI severa desconocida
  - Estenosis aórtica bajo gradiente
- 1) Cardiopatía isquémica?
  - 2) Reemplazo valvular percutáneo

# Cinecoronariografía

- TCI: SLAS
  - DA: Lesión severa en tercio medio (intrastent)
  - CX: SLAS
  - 1 LV: Lesión moderada en tercio proximal
  - CD: Hipoplásica
- 
- ATC + 1 BMS DA







# Reemplazo valvular

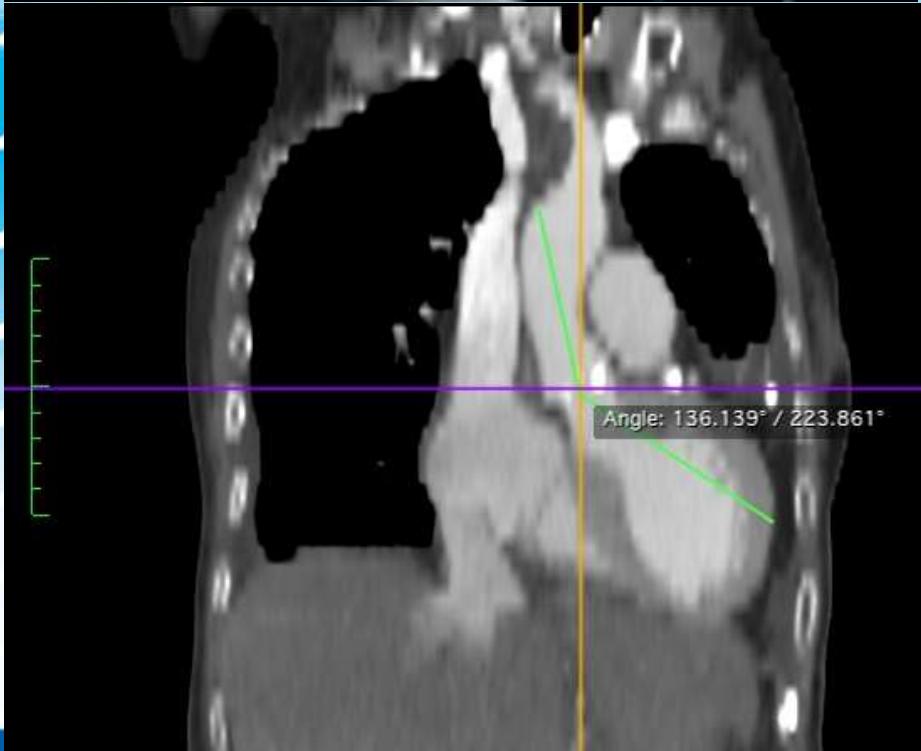
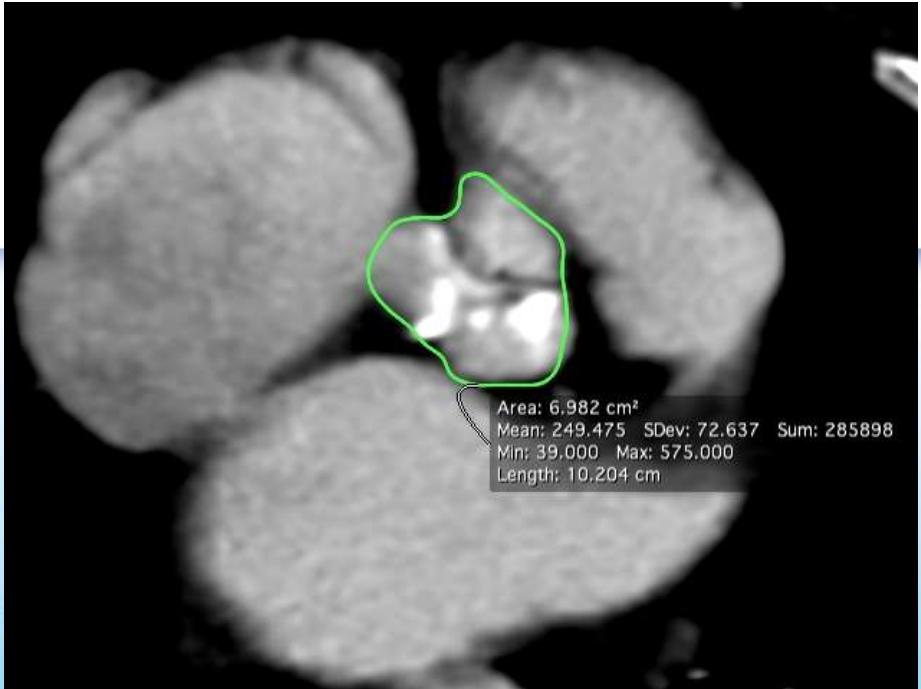
- Cirugía convencional vs TAVI

Patient related factors		Cardiac related factors		
Age <sup>1</sup> (years)	83	0.68	NYHA	IV ▼
Gender	female ▼	.2196434	CCS class 4 angina <sup>8</sup>	yes ▼
Renal impairment <sup>2</sup> See calculator below for creatinine clearance	normal (CC >85ml/min) ▼	0	LV function	poor (LVEF 21%-30%) ▼
Extracardiac arteriopathy <sup>3</sup>	no ▼	0	Recent MI <sup>9</sup>	yes ▼
Poor mobility <sup>4</sup>	no ▼	0	Pulmonary hypertension <sup>10</sup>	severe (PA systolic >55 mmHg) ▼
Previous cardiac surgery	yes ▼	1.118599	Operation related factors	
Chronic lung disease <sup>5</sup>	no ▼	0	Urgency <sup>11</sup>	elective ▼
Active endocarditis <sup>6</sup>	no ▼	0	Weight of the intervention <sup>12</sup>	single non CABG ▼
Critical preoperative state <sup>7</sup>	no ▼	0	Surgery on thoracic aorta	no ▼
Diabetes on insulin	no ▼	0		
EuroSCORE II ▼	23.10 %			
<input type="button" value="Calculate"/> <input type="button" value="Clear"/>				

Note: This is the 2011  
EuroSCORE II

## Calculations

Procedure Name	<b>Isolated MVRepl</b>
Risk of Mortality	<b>16.341%</b>
Morbidity or Mortality	<b>50.205%</b>
Long Length of Stay	<b>28.112%</b>
Short Length of Stay	<b>4.225%</b>
Permanent Stroke	<b>2.252%</b>
Prolonged Ventilation	<b>38.630%</b>
DSW Infection	<b>0.228%</b>
Renal Failure	<b>13.321%</b>
Reoperation	<b>21.939%</b>



PERIMETER*	DIAMETER*	JENAVALVE
66.0	21.00	23 mm
66.4	21.15	23 mm
66.9	21.30	23 mm
67.4	21.45	23 mm
67.9	21.60	23 mm
68.3	21.75	23 mm
69.0	21.95	23 mm
69.4	22.10	23 mm
69.9	22.25	23 mm
70.4	22.40	23 mm
70.9	22.55	23 mm
71.3	22.70	23 mm
71.8	22.85	23 mm
72.3	23.00	25 mm
72.7	23.15	25 mm
73.2	23.30	25 mm
73.7	23.45	25 mm
74.1	23.60	25 mm
74.6	23.75	25 mm
75.2	23.95	25 mm
75.7	24.10	25 mm
76.2	24.25	25 mm
76.7	24.40	25 mm
77.1	24.55	25 mm
77.6	24.70	25 mm
78.1	24.85	25 mm
78.5	25.00	27 mm
79.0	25.15	27 mm
79.5	25.30	27 mm
80.0	25.45	27 mm
80.4	25.60	27 mm
80.9	25.75	27 mm
81.5	25.95	27 mm
82.0	26.10	27 mm
82.5	26.25	27 mm
82.9	26.40	27 mm
83.4	26.55	27 mm
83.9	26.70	27 mm
84.4	26.85	27 mm
84.8	27.00	27 mm

# TAVI

- Vías de acceso
  - ✓ Transfemoral
  - ✓ Transapical
  - ✓ Subclavio

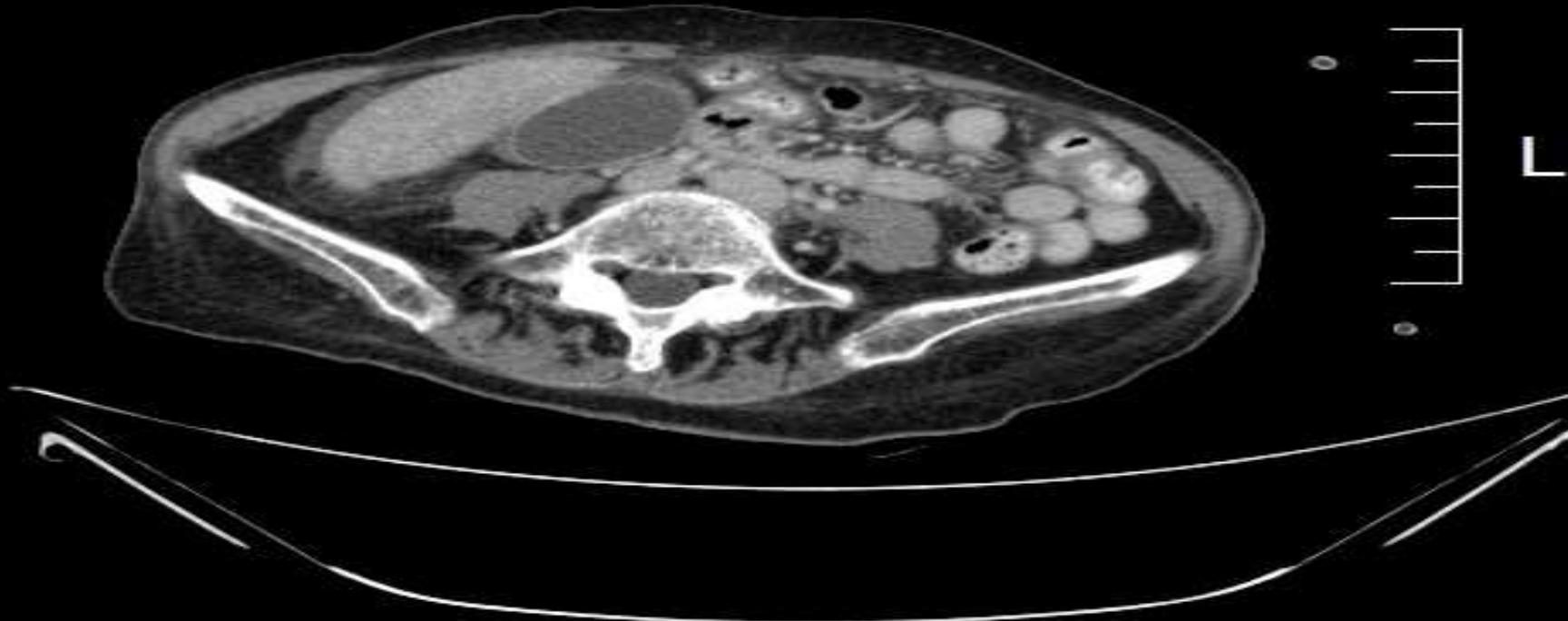
EstID: 15663  
Ser.Nº 80157 Lote 1  
Ima.Nº 47  
Loc: 465,7 Ax  
Kerz: B

A

SANATORIO OTAMENDI  
CHAMMAH^ESTHER  
PaclD: 3472798  
21/12/1930 083Y F  
AccNum: 10425701  
08/05/2014 04:04:21 p.m.

R

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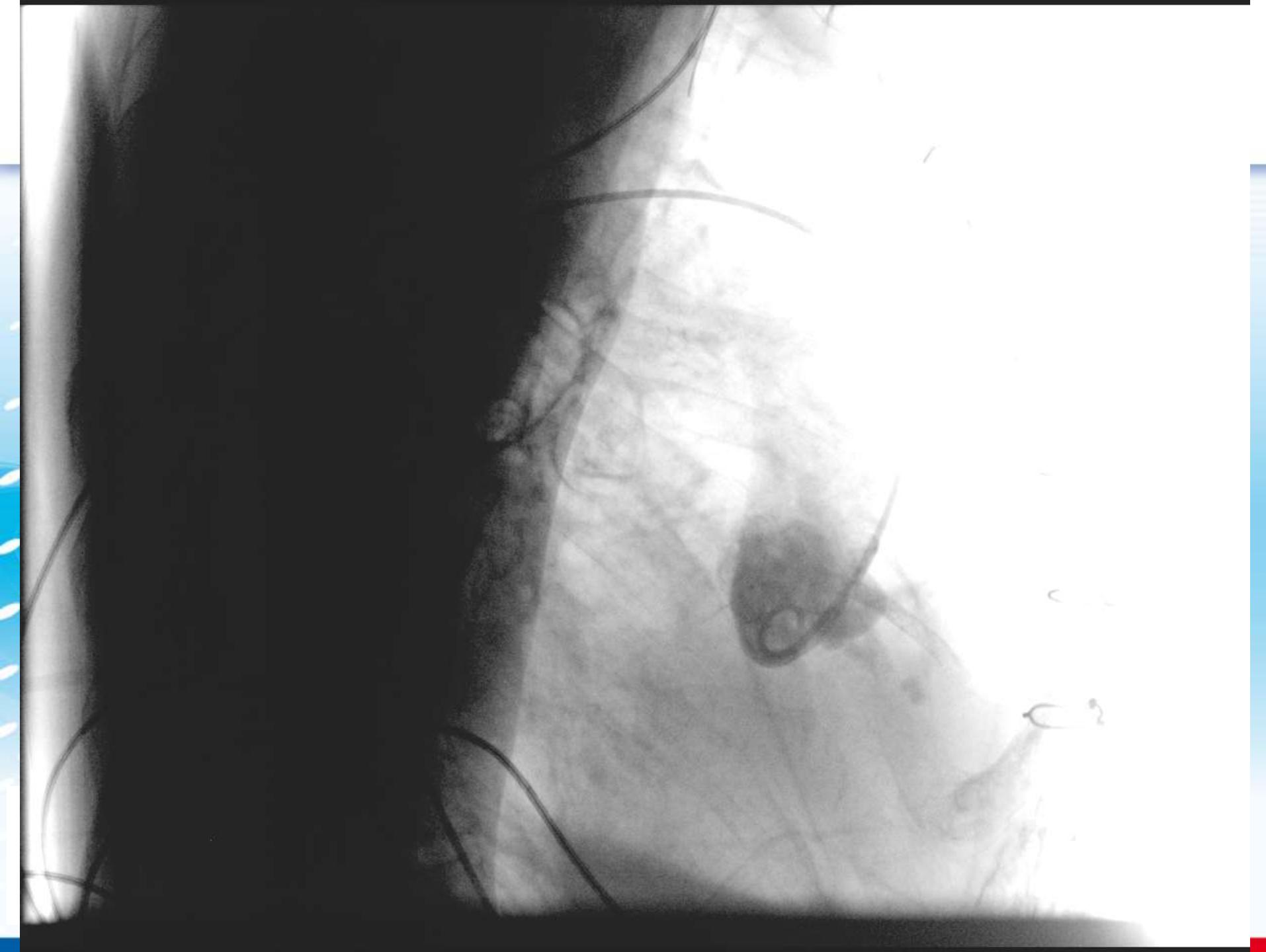
KV: 120  
mA: 265  
Tilt: 0  
Seg: 0,441  
Matriz: 666 x 512 Thk: 4,0  
W:360 L:60

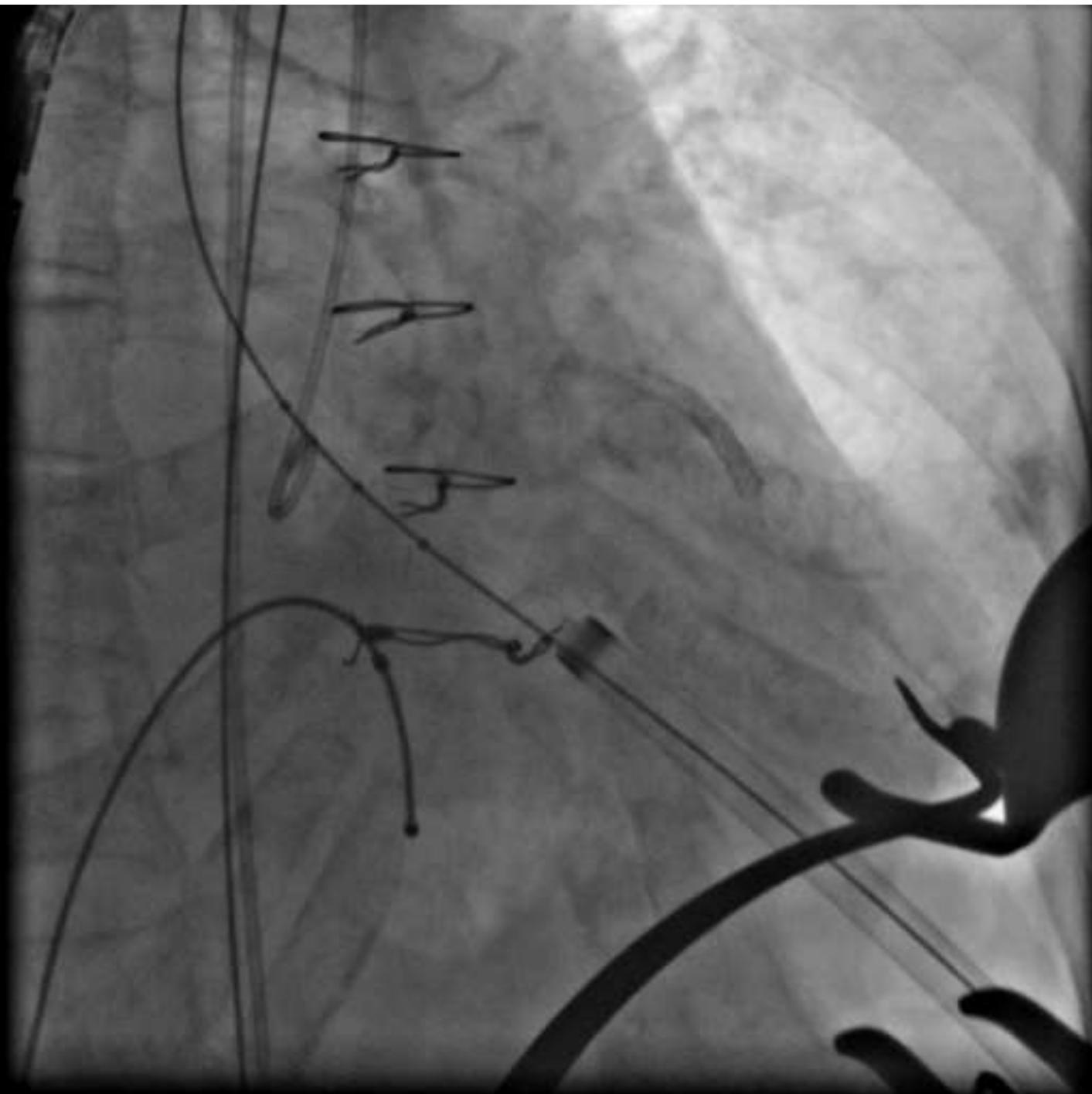
Esc:  
P

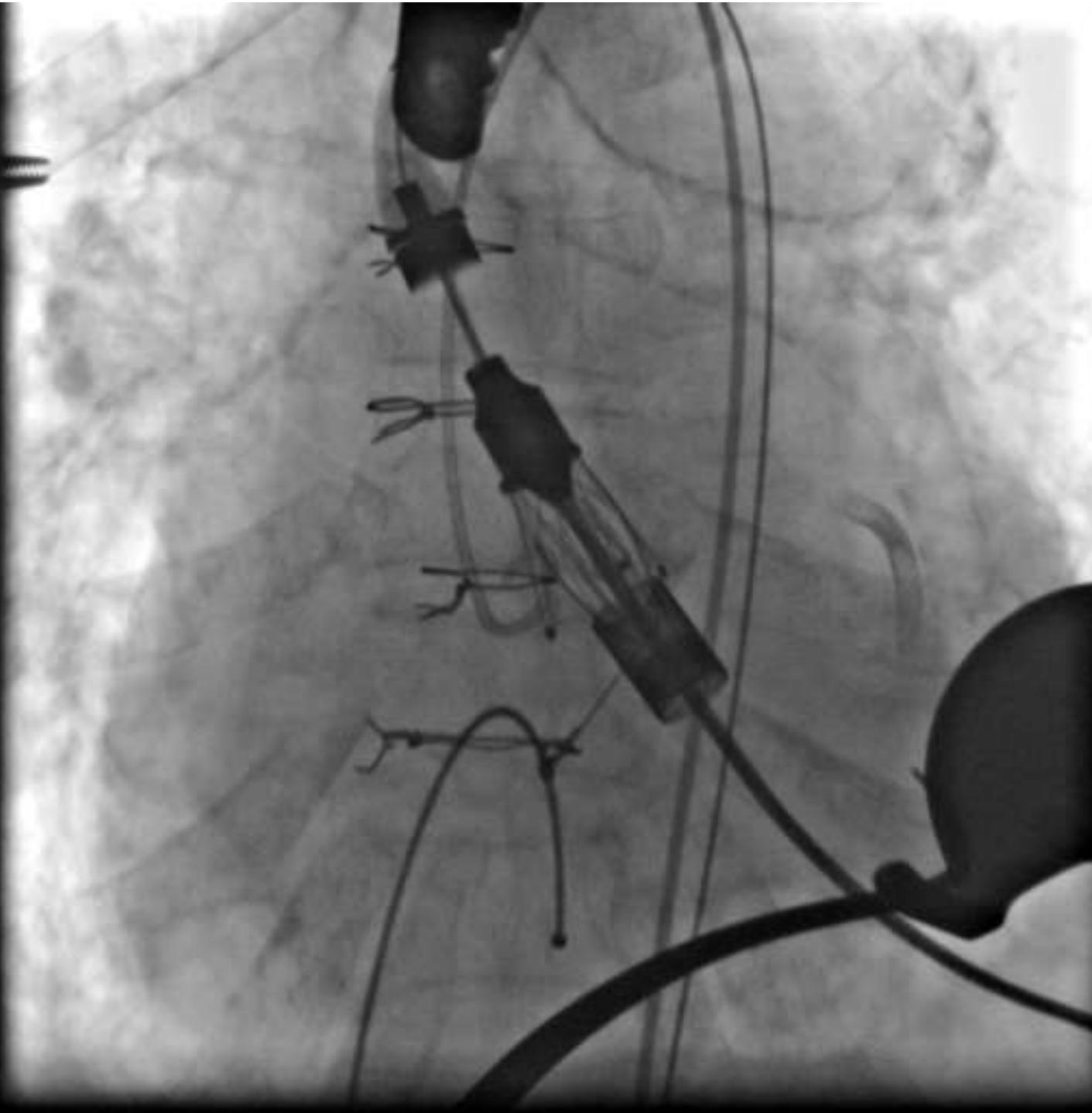
FOV: 58,8 x 45 cm  
Ref.: "  
Mod.: CT

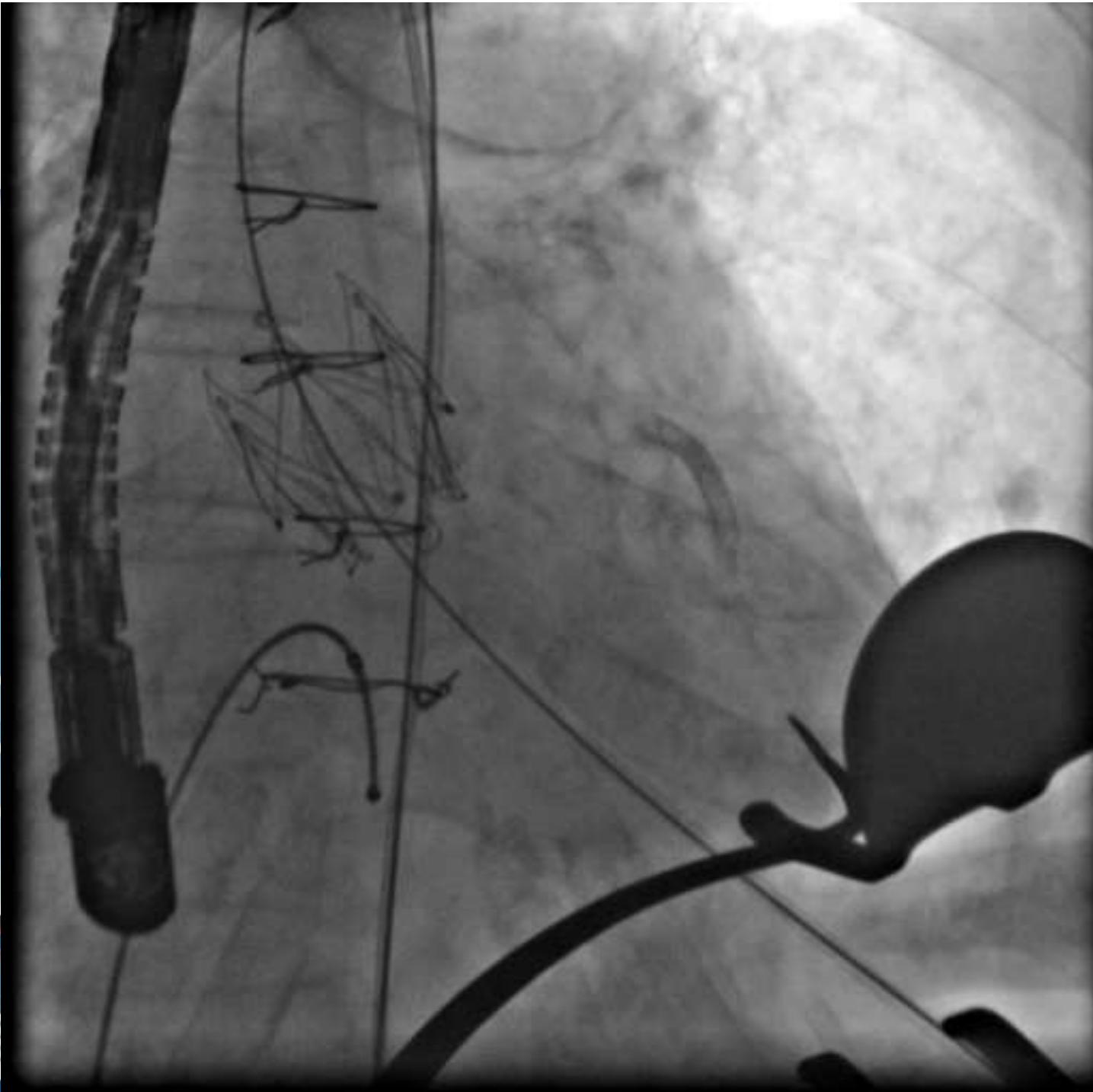
# Reemplazo Valvular Transapical

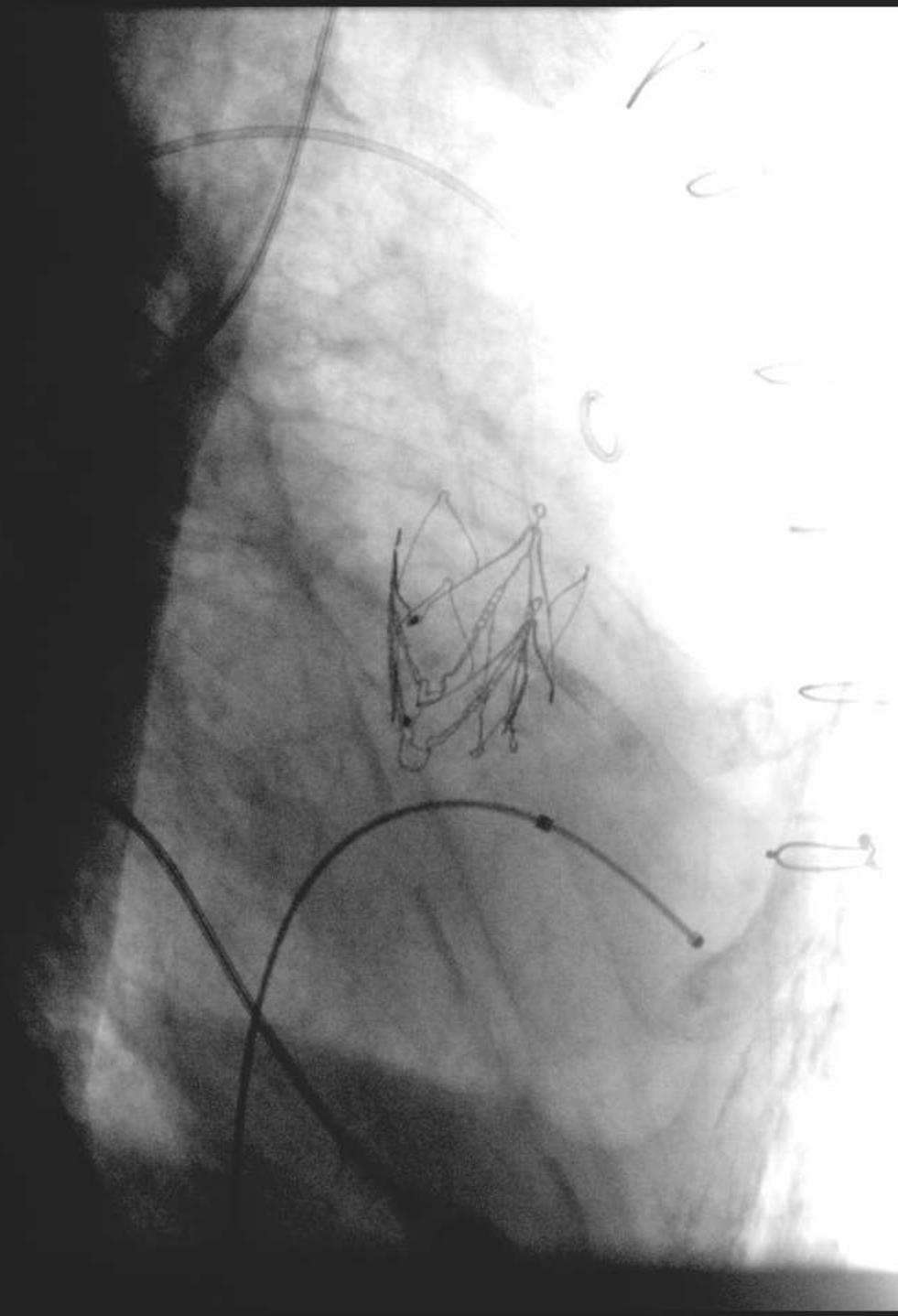
- Abordaje quirúrgico transapical
- Introductor 6F, luego 18F a través del apex
- Valvuloplastía aórtica con balón 20mm
- Implante JENA valve #23











# Intercurrencias

- Bajo gasto cardíaco
- ✓ SVO<sub>2</sub>: 34% + dCO<sub>2</sub>: 10
- ✓ ICC Sintomática + Oliguria
- ✓ Furosemida por BIC + Dobutamina por 24hs
- ✓ Resultados: SVO<sub>2</sub>: 62% + dCO<sub>2</sub>: 6

# Ecocardiograma control

- Función VI Moderada. FEY 40%
- Regionalidades sin cambios
- Estenosis aórtica leve. A 1.4 – GP 8
- Prótesis mitral y aórtica normoinsertas

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V

5

10

15



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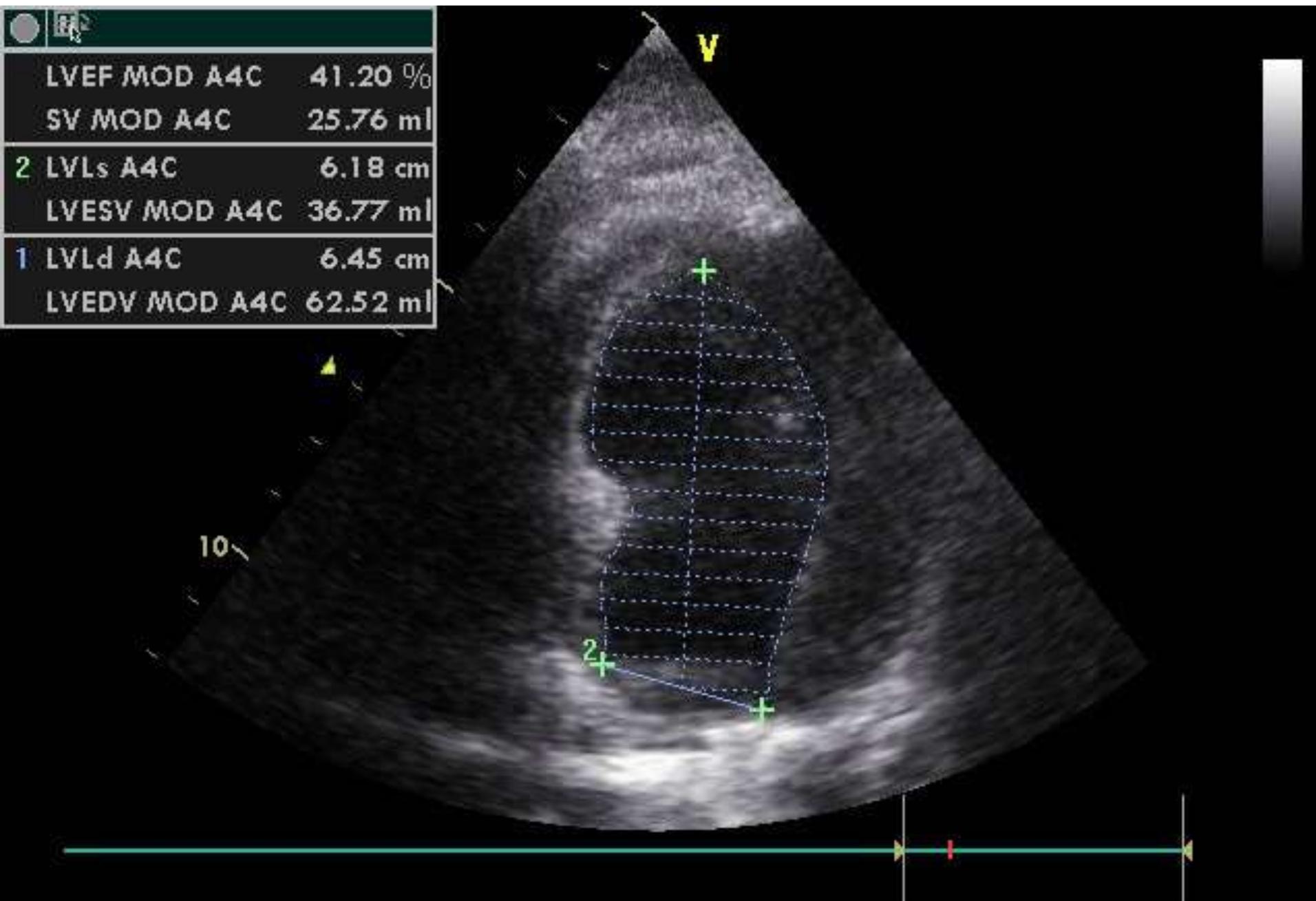


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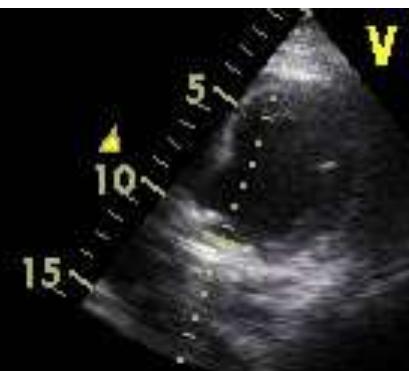


LVEF MOD A4C	41.20 %
SV MOD A4C	25.76 ml
2 LVLs A4C	6.18 cm
LVESV MOD A4C	36.77 ml
1 LVLd A4C	6.45 cm
LVEDV MOD A4C	62.52 ml





	M2
1 MV Vmax	1.42 m/s
MV Vmean	0.74 m/s
MV maxPG	8.02 mmHg
MV meanPG	2.66 mmHg
MV VTI	32.54 cm
HR	136.39 BPM



15

V

5

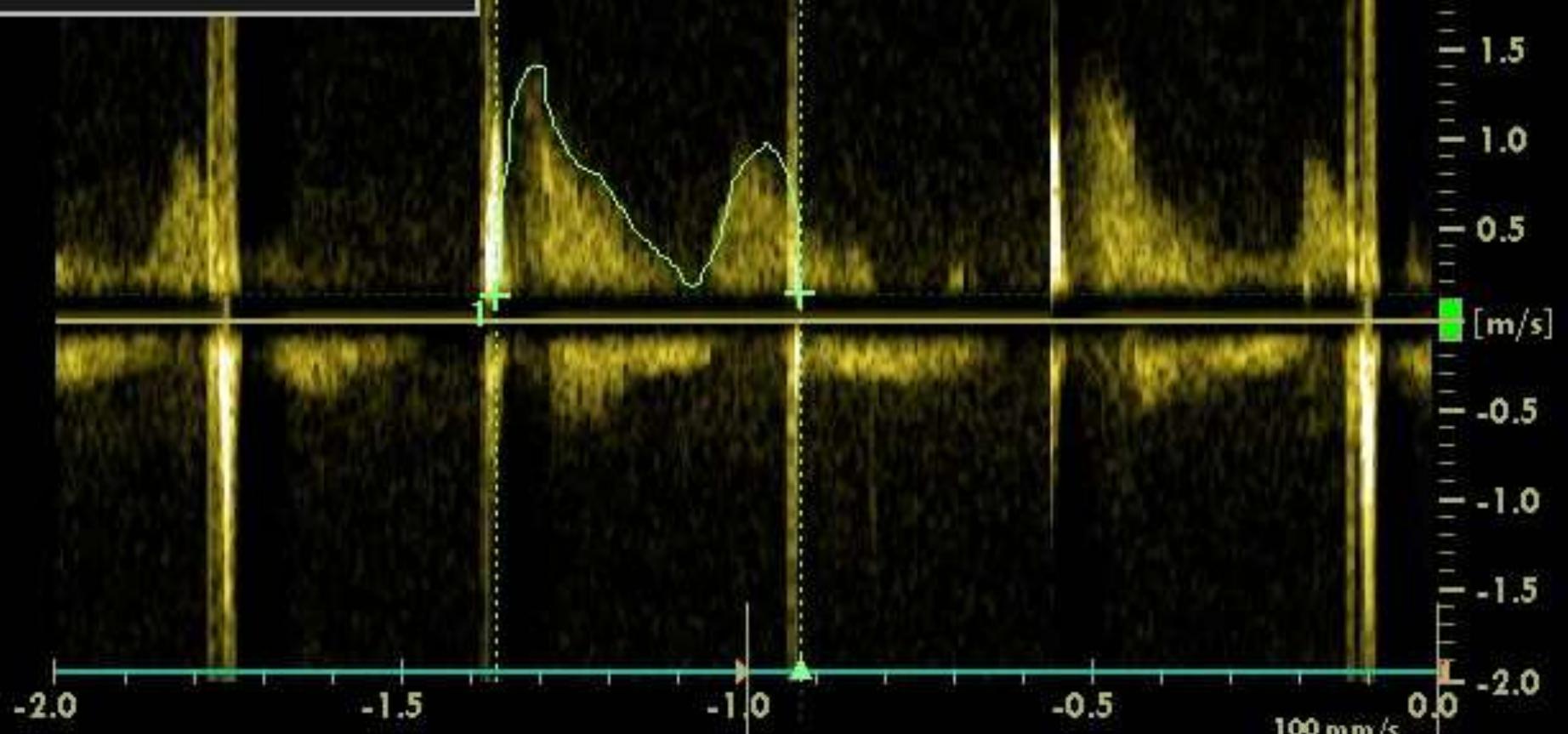
10

15

1



[m/s]



# Evolución

- Alta sanatorial. Paciente asintomática
- Anticoagulada
- Tratamiento médico completo
- Control a 6 meses: Asintomática