TAVI : Esperienza di real -life nella pratica clinica quotidiana

M. Verdoia, Biella

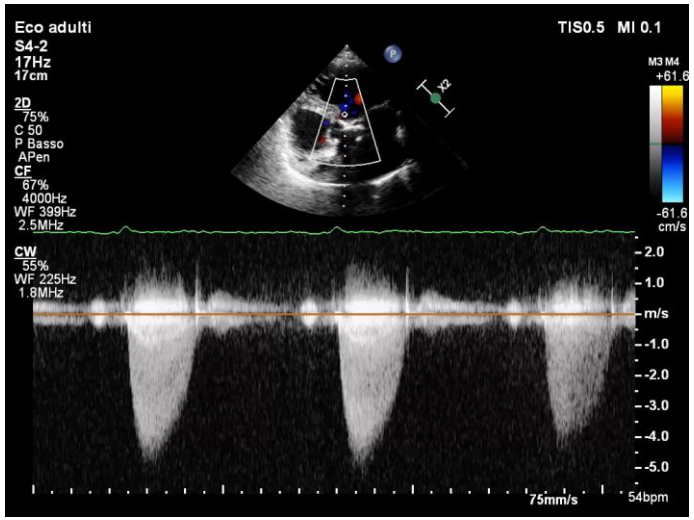
AZIENDA SANITARIA LOCALE DI BIELLA

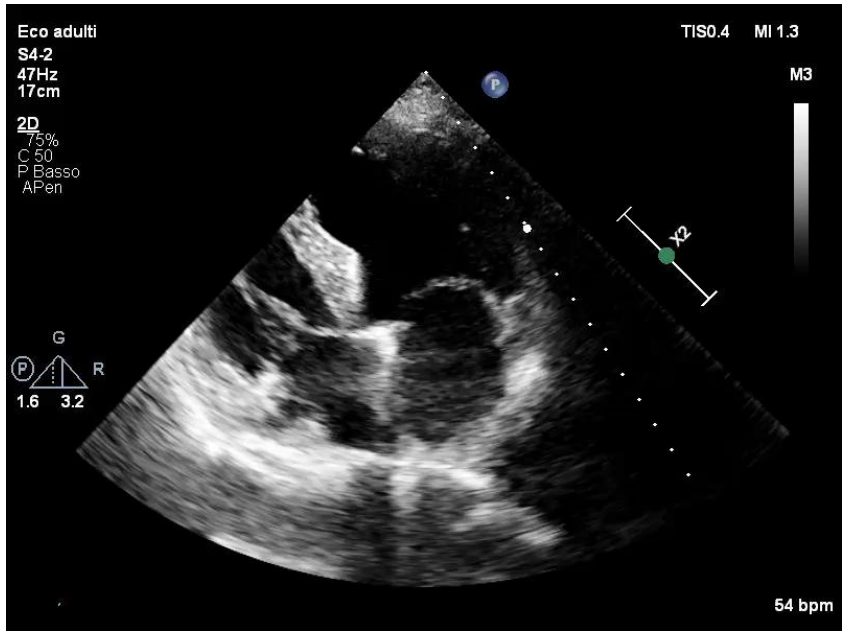
- ✓ La TAVI ha rivoluzionato il trattamento dei pazienti con stenosi aortica
- ✓ Rispetto alle prime esperienze, sono stati compiuti significativi progressi tecnici
- ✓ Oggi è possibile affrontare differenti tipologie di pazienti e anatomie, dai casi più semplici a quelli più complessi

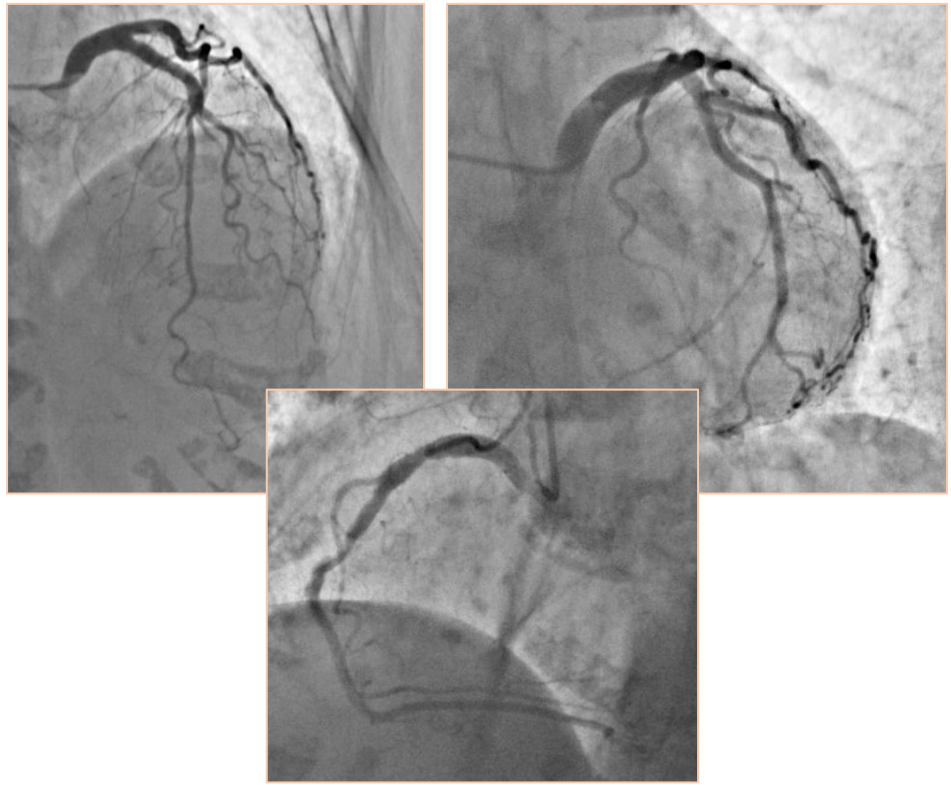
Caso 1:

88 aa, : ipertensione arteriosa; dislipidemia
Storia di FAP in NAO
Visita cardiologica per angina…

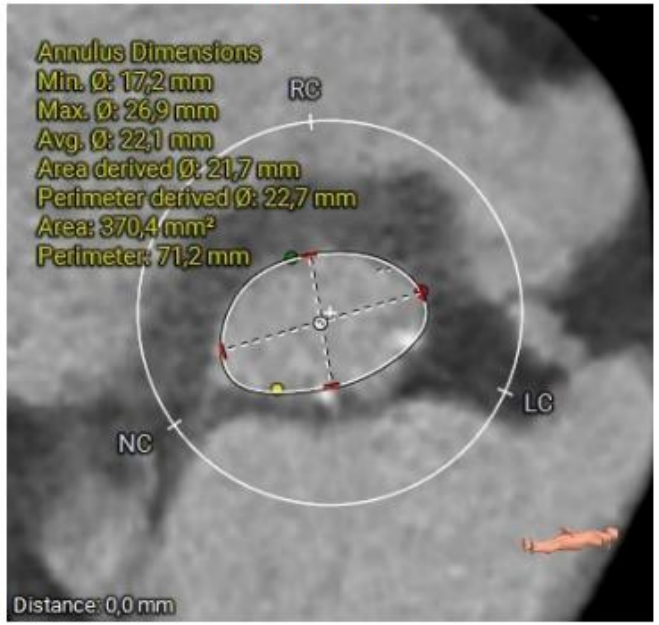
- ✓ ECG nei limiti
- ✓ PA controllata- LDL 82/mg/dl
- ✓ Ecocardio: VS normocontrattile, SAO severa con G max 95/G medio 57 mmHg, IM e IT lievi
- ✓ CORO: ateromasia coronarica non critica







Annulus diameter ES



LVOT at 3mm depth

Aortic Annulus

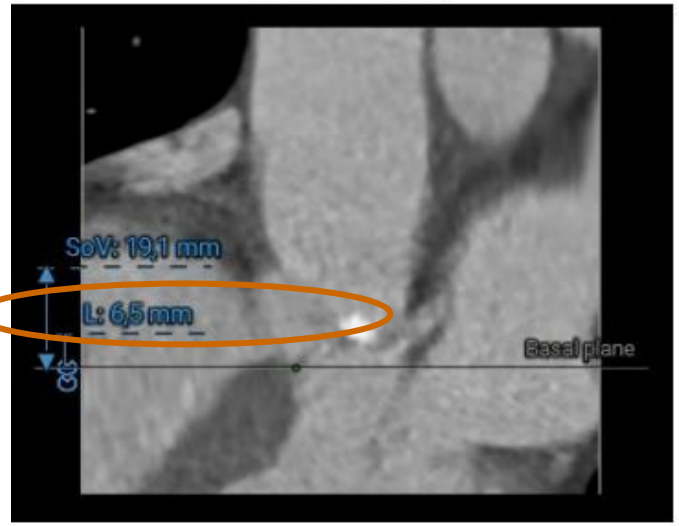
Perimeter:	71,2	mm
Perimeter Derived Ø:	22,7	mm
Area:	370,4	mm²
Area Derived Ø:	21,7	mm
Min Ø:	17,2	mm
Max Ø:	26,9	mm
Average Ø:	22,1	mm
Eccentricity:	0,36	

LVOT Ø:	21,3	mm
RCA Height:	18,0	mm

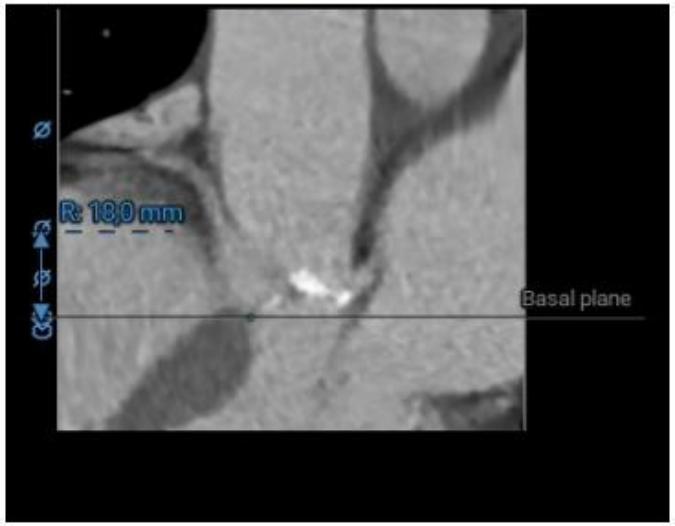
Measurements:

Ascending Aorta Ø	Min: 31,7 mm Max: 36,1 mm Average: 33,9 mm
Sinotubular Junction Ø	Min: 27,1 mm Max: 27,6 mm Average: 27,3 mm
Aortic Annulus	Min Ø: 17,2 mm ! Max Ø: 26,9 mm Average Ø: 22,1 mm Eccentricity: 0,36
LVOT Ø	Min: 16,5 mm Max: 26,1 mm Average: 21,3 mm
Sinus of Valsalva Height	19,1 mm
Aorto-Mitral Continuity Length	
Annulus to Apex	

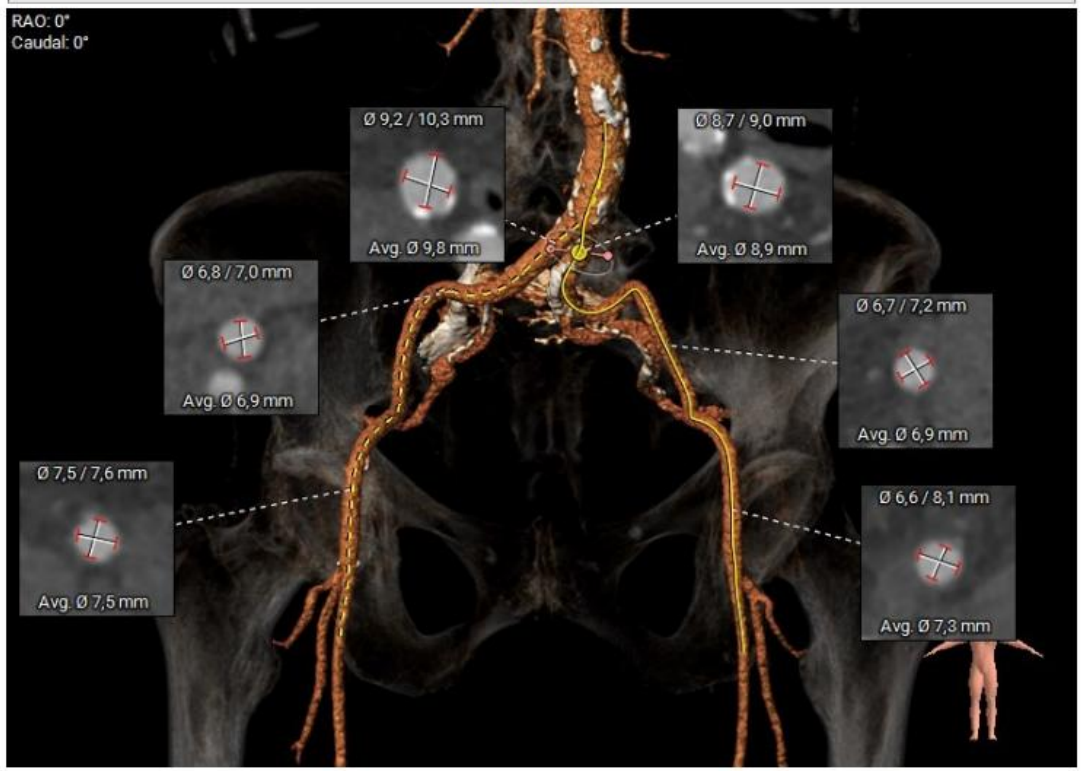
Anulus base to LC + STJ

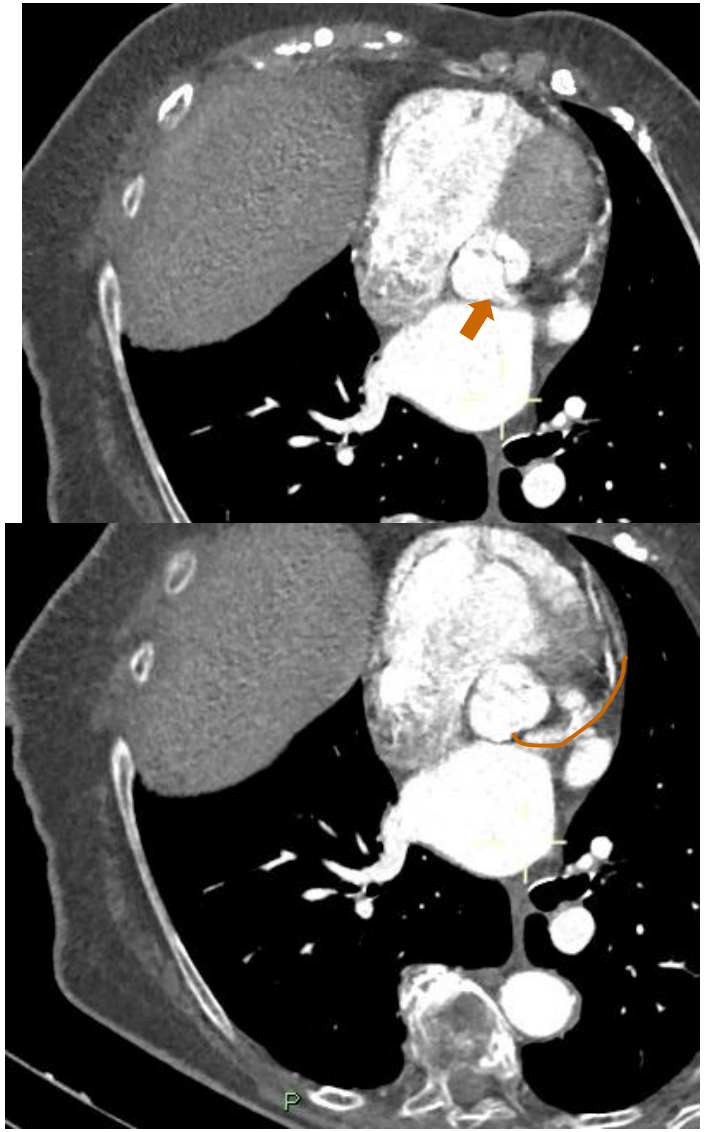


Anulus base to RC



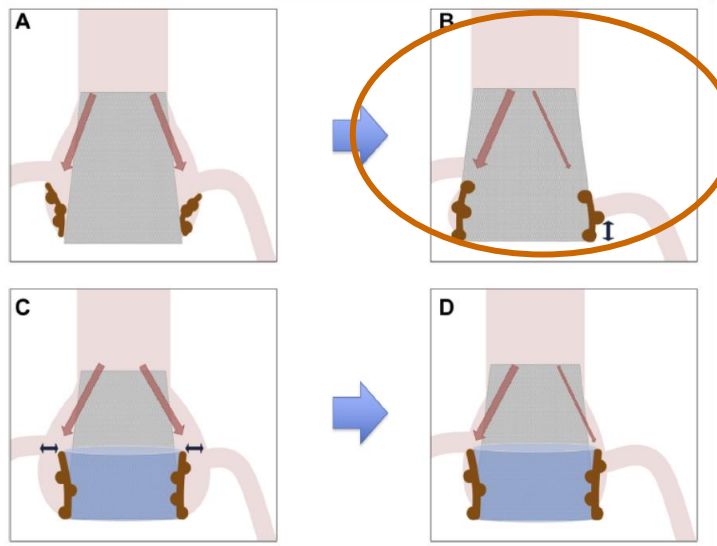
Femoral Overview





Origine anomala della coronaria sinistra dal seno non coronarico (alla commissura fra cuspide sinistra e non coronarica)

PREDITTORI DI OCCLUSIONE CORONARICA DOPO TAVI



A. Flusso coronarico normale dopo TAVI

B. Occlusione coronarica in caso di origine coronarica bassa o ridotta ampiezza dei seni o della giunzione ST

C,D. TAVI valve-in-valve per bioprotesi chirurgica: lembi montati esternamente o breve distanza fra gli osti coronarici e la posizione finale prevista della valvola sono i principali predittori di occlusione coronarica

Mercanti F et al. JACC Cardiovasc Interv. 2020

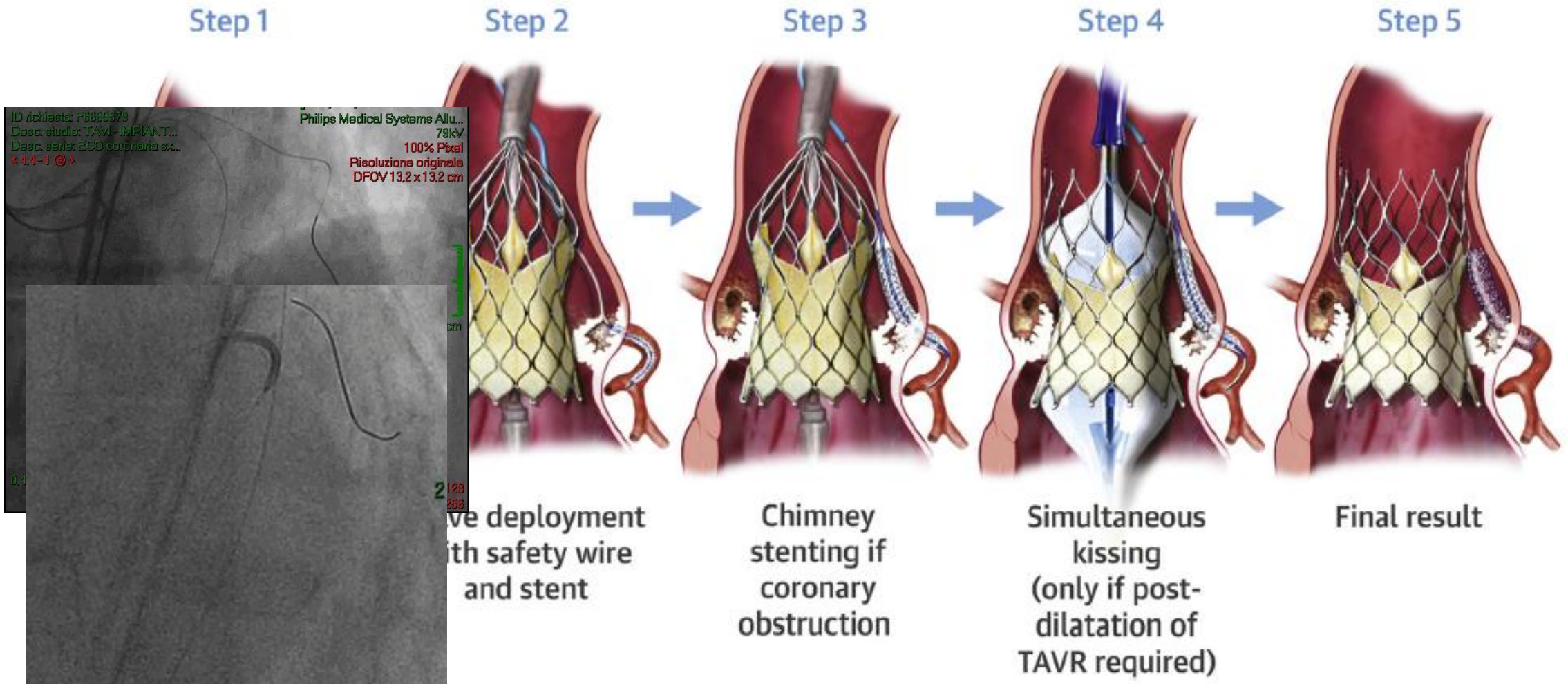
Procedural PLANNING:

PROTEZIONE CORONARICA

TIPO DI PROTESI (self/intraanulare)

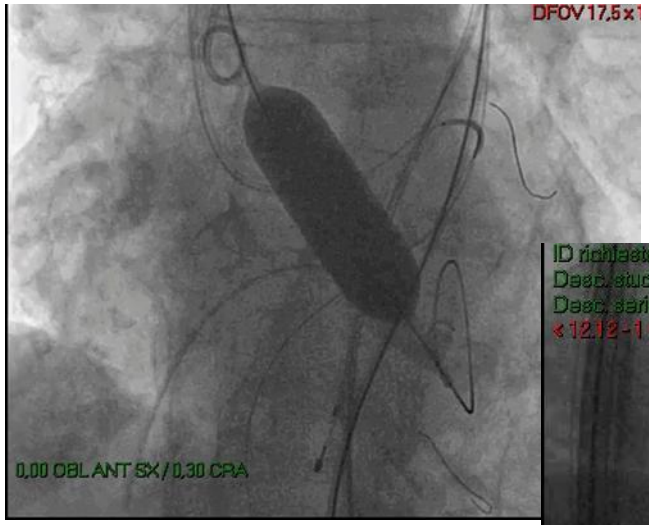
CHIMNEY STENTING

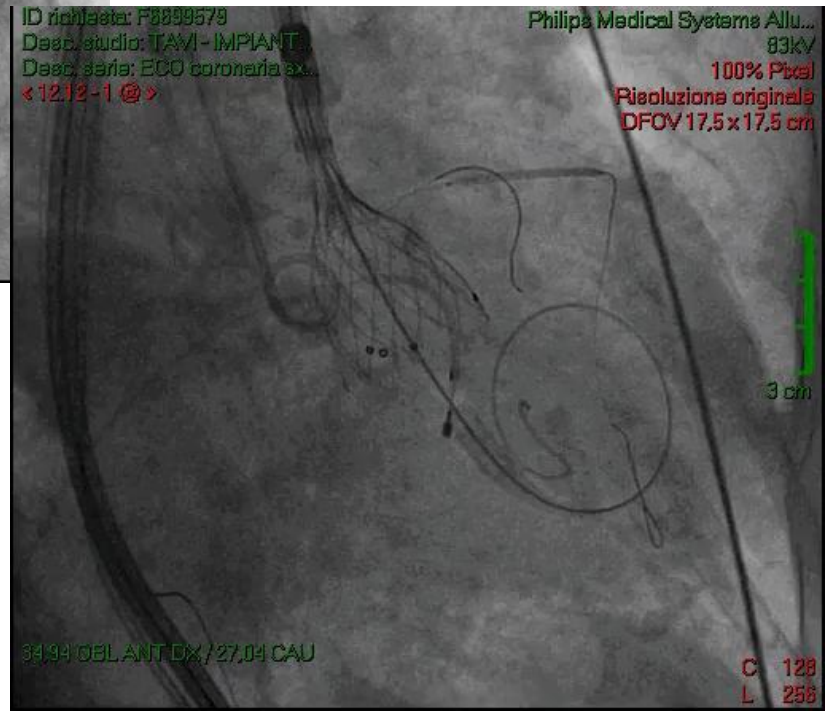
Mercanti F et al. JACC Cardiovasc Interv. 2020

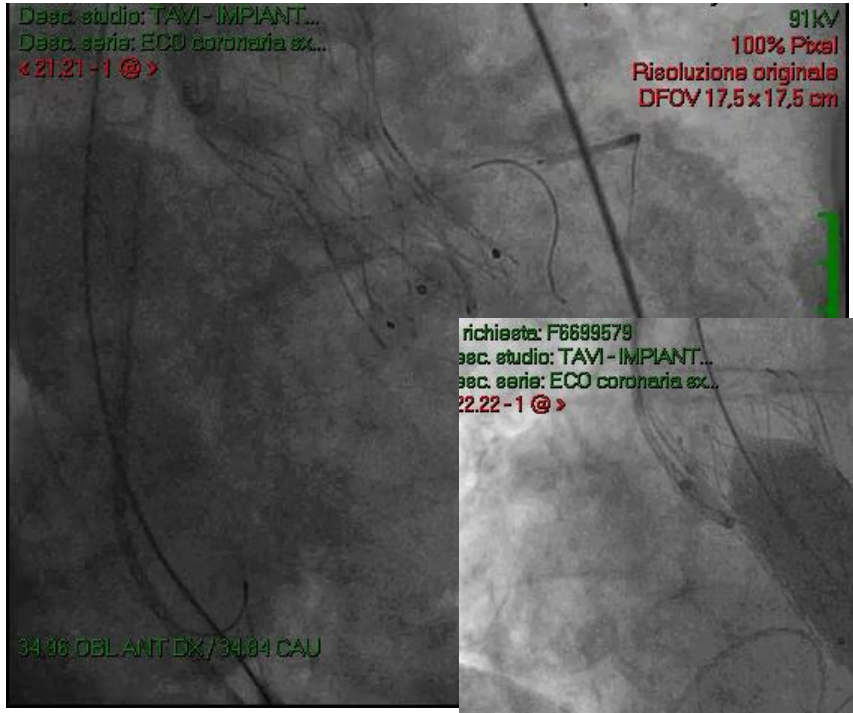


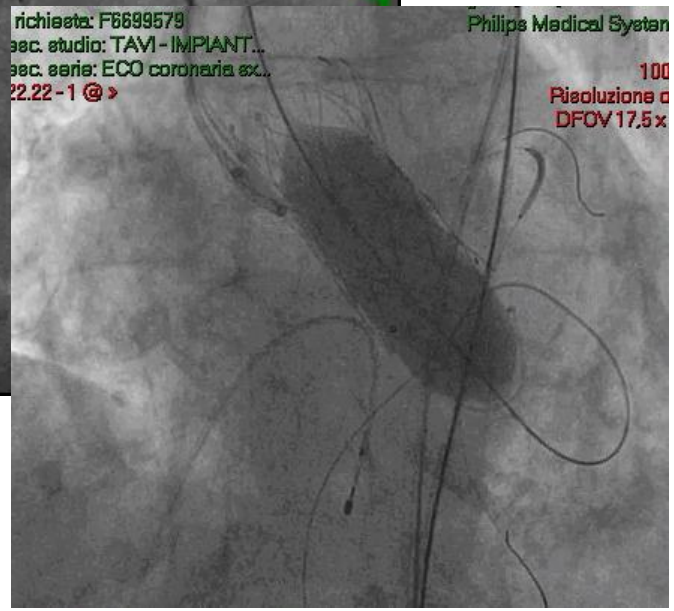
2 TAVI:

- ✓ accesso femorale dx 14 F e fem sx 6F per protezione TC
- ✓ Pre-dilatazione VACS III 18
- ✓ Impianto NAVITOR n 25
- ✓ Post-dilatazione VACS III 22
- ✓ Grad max post 10 mmHg





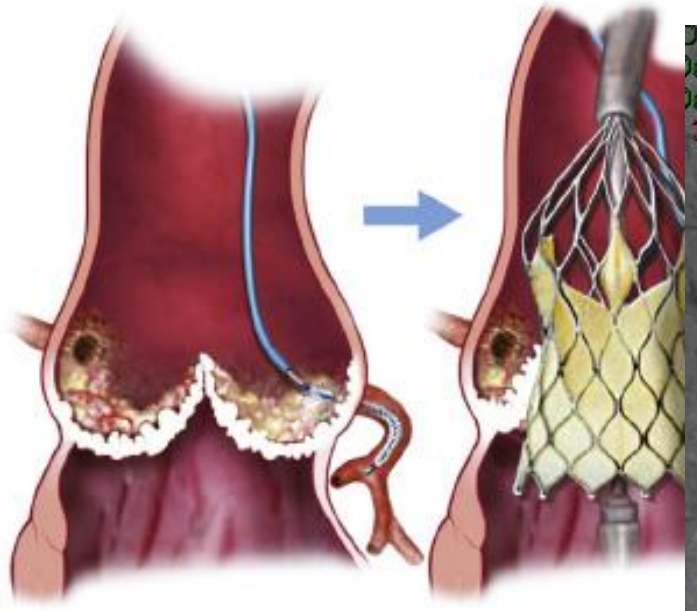




Step 1 Step 2 Step 3 Step 4 Step 5

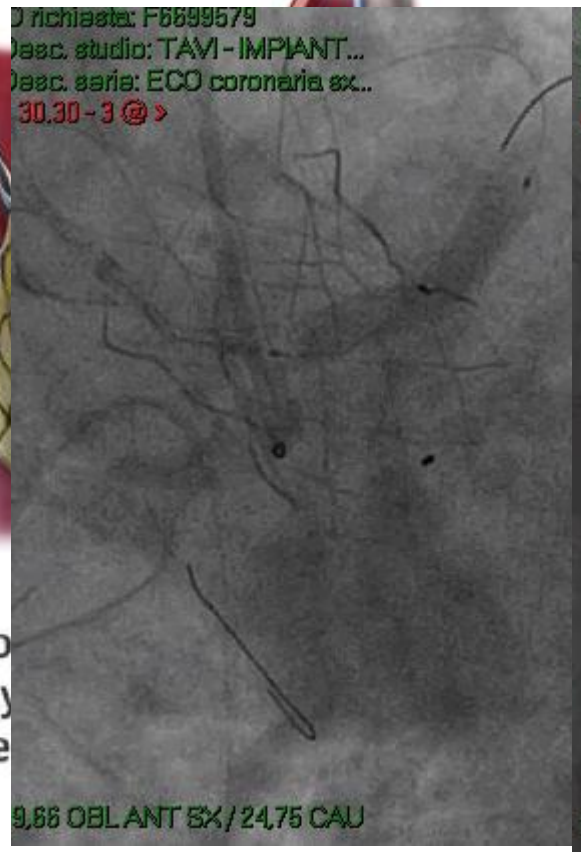
3 STENTING TC e FINALE:

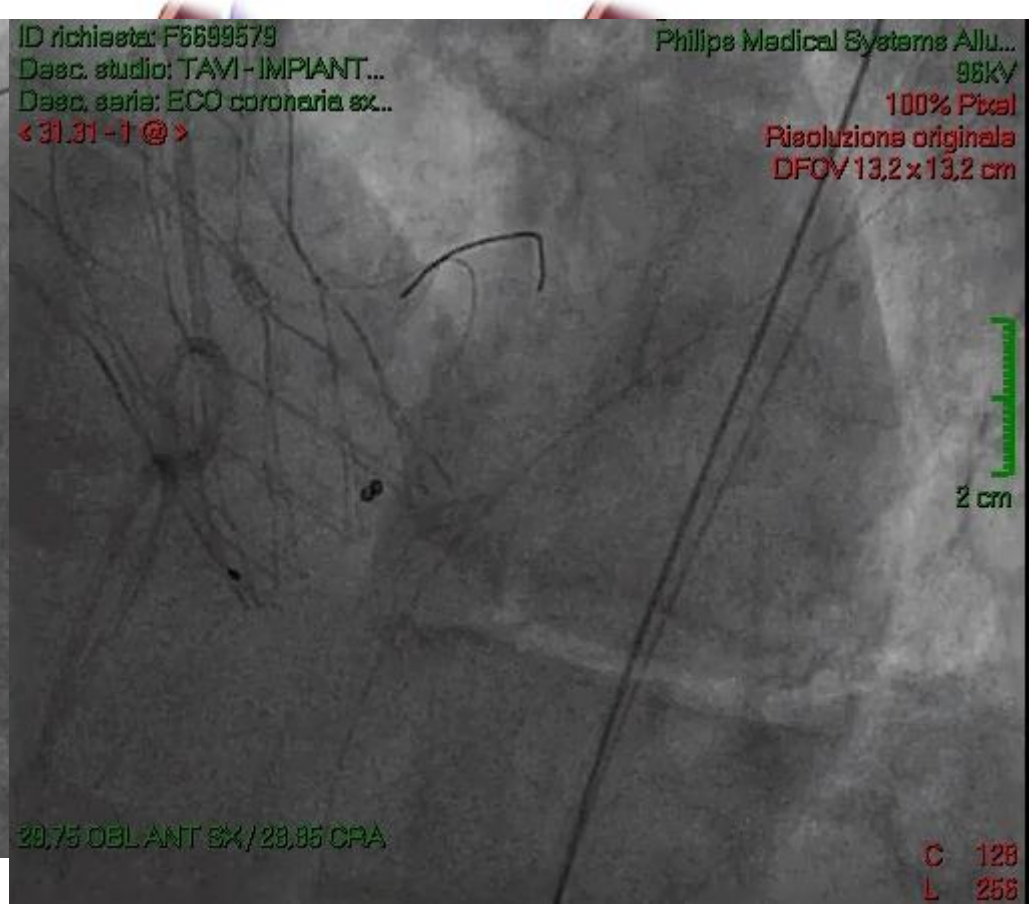
- ✓ DES Megatron 5x32 mm



Patient at risk.
Safety wire
and stent

Valve deplo
with safety
and ste



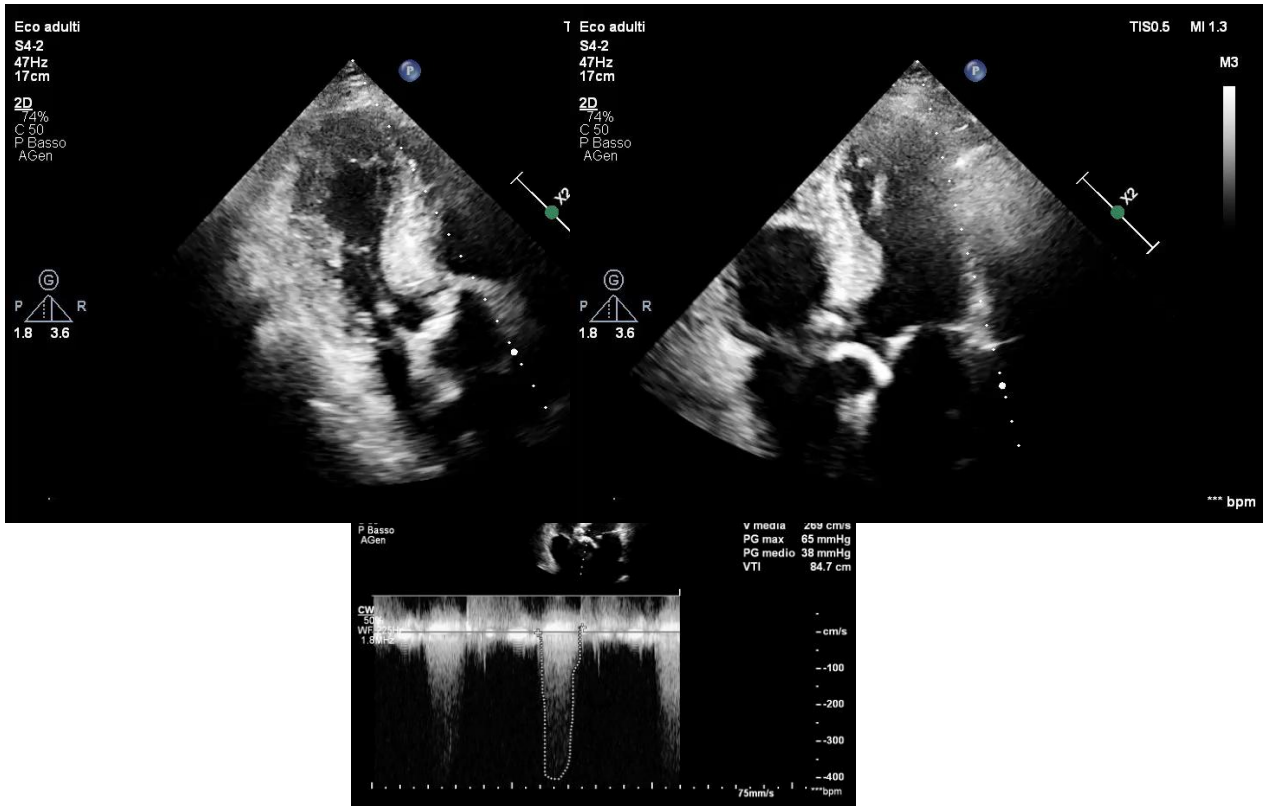


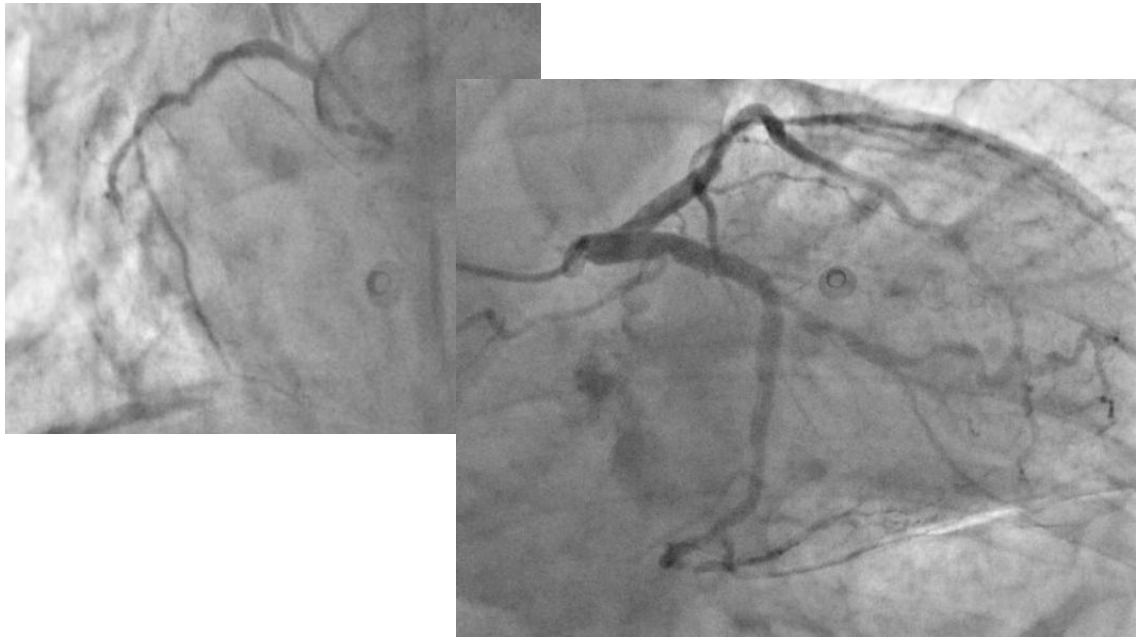
DECORSO E DIMISSIONE: ALLUNGAMENTO DEL PR + BBsX>> Follow-up DAPT per 1 mese

Caso 2

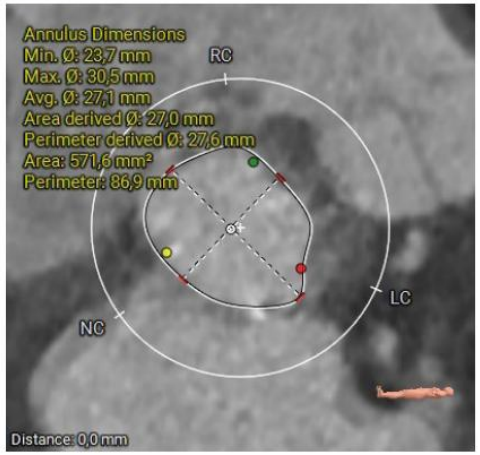
88 aa, : ipertensione arteriosa; IRC
Pregressa malattia reumatica con endocardite nel 1957. Noto BBdx
6/2025 ricovero per SCC

- ✓ Ecocardio: funzione sistolica ventricolare sinistra conservata: valvola mitrale con apertura conservata e continente; valvola aortica grossolanamente calcifica, stenosi di grado severo (gradiente massimo/medio 68/40 mmHg), insufficienza valvolare associata lieve; non segni di ipertensione polmonare
- ✓ CORO: ateromasia coronarica, MO 75% (dom. sx)

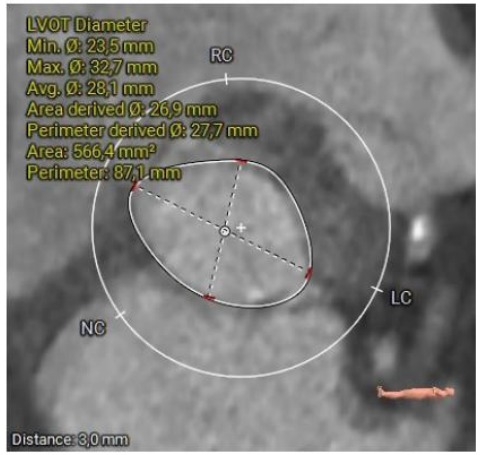




Annulus diameter ES



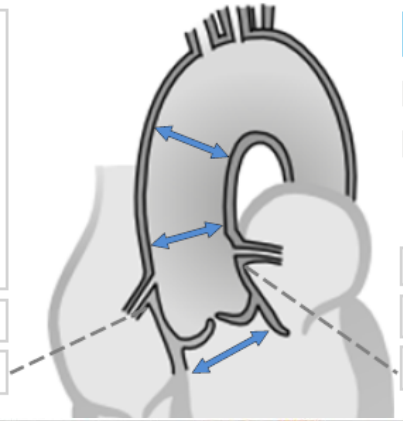
LVOT at 3mm depth



Aortic Annulus

Perimeter:	86,9	mm
Perimeter Derived Ø:	27,6	mm
Area:	571,6	mm²
Area Derived Ø:	27,0	mm
Min Ø:	23,7	mm
Max Ø:	30,5	mm
Average Ø:	27,1	mm
Eccentricity:	0,22	

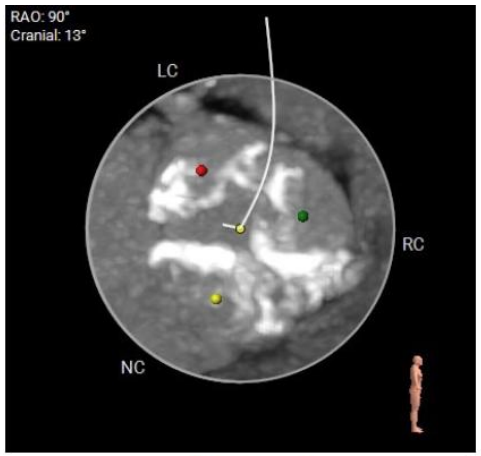
LVOT Ø:	28,1	mm
RCA Height:	26,3	mm

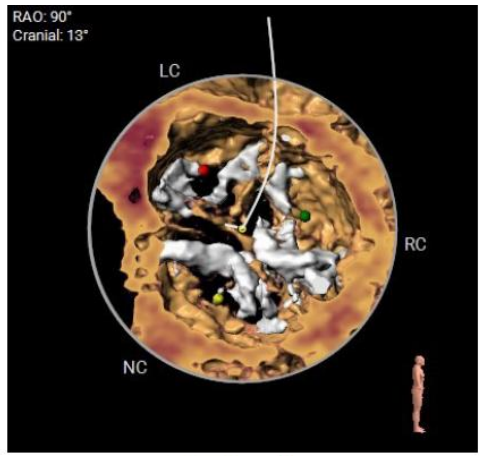


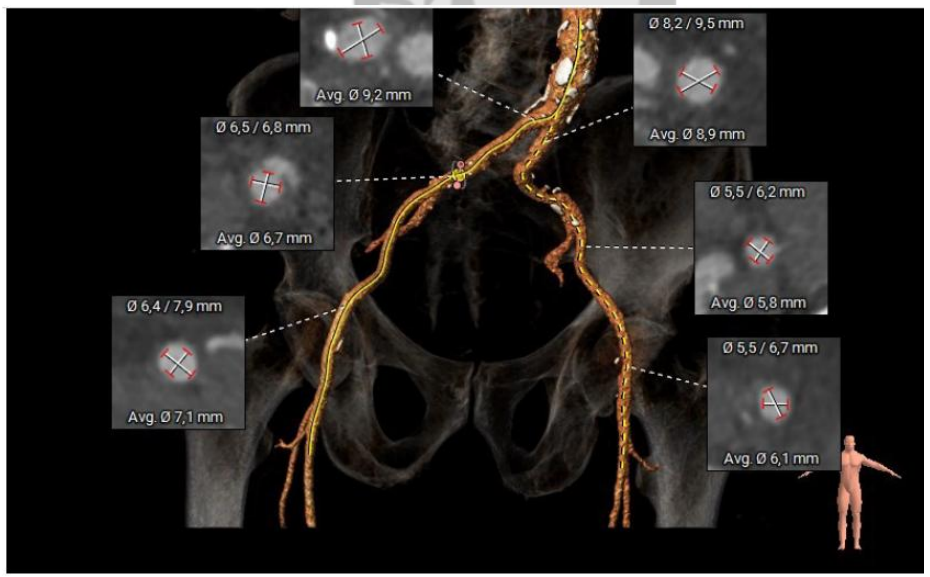
	Abbott Valve Size	Annulus Range (mm)	Area (mm²)	Perimeter (mm)
☐	23 mm	19-21	277-346	60-66
☐	25 mm	21-23	338-415	66-73
☐	27 mm	23-25	405-491	72-79
☐	29 mm	25-27	479-573	79-85
☑	35 mm	27-30	559-707	85-95

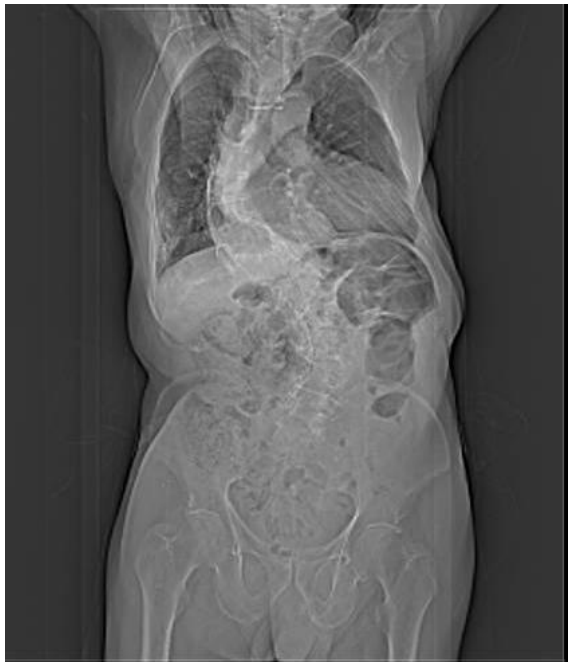
Aortic Valve Calcification: -

Asc. Aorta Ø:	35,6	mm
LCA Height:	14,0	mm

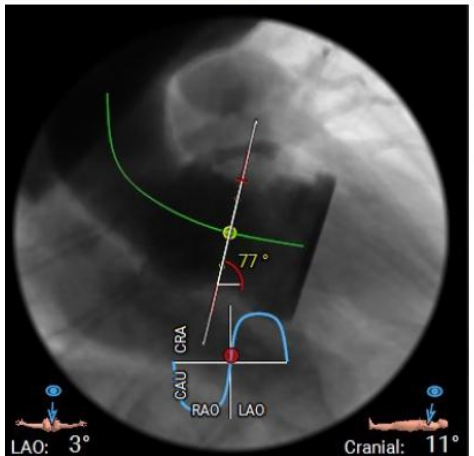




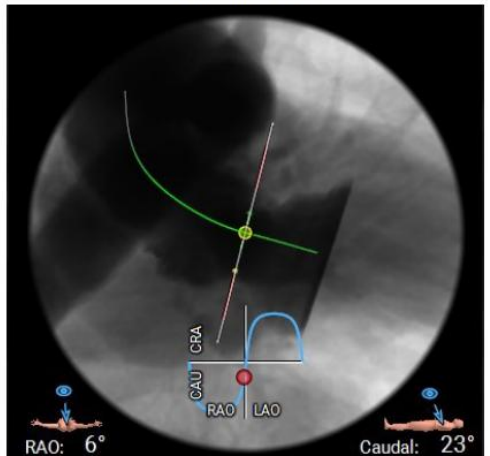




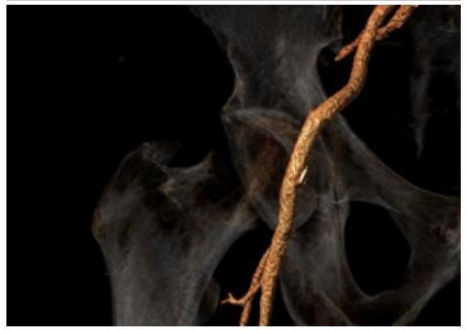
3 cusp view plane + Angle



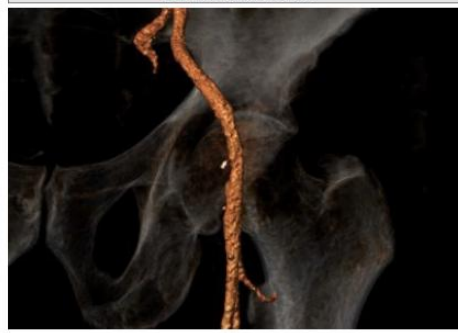
Angio Cusp Overlap

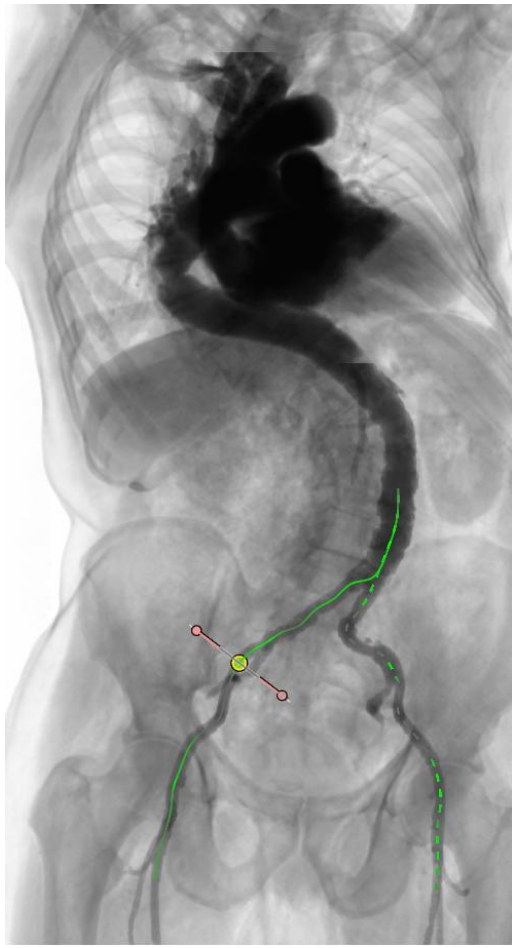


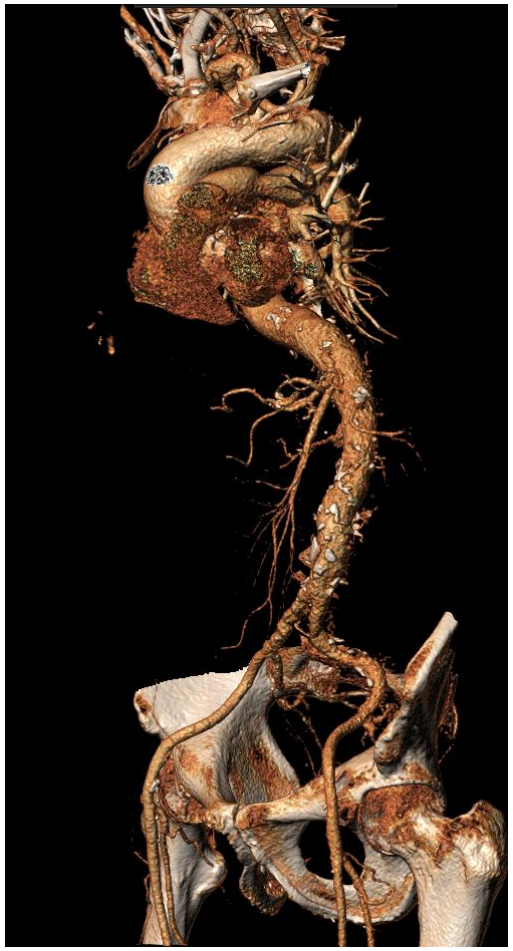
Right femoral bifurcation

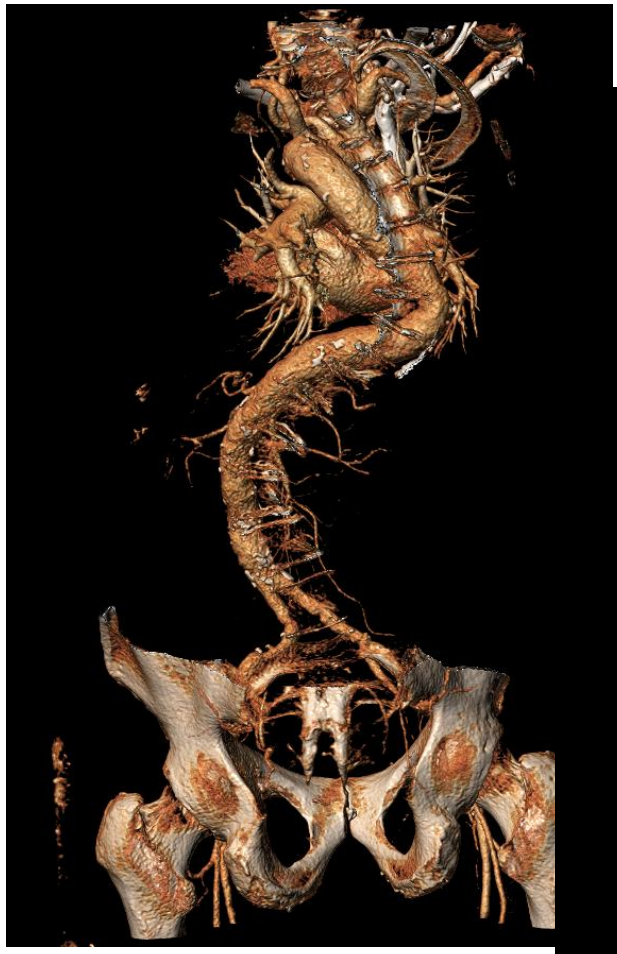


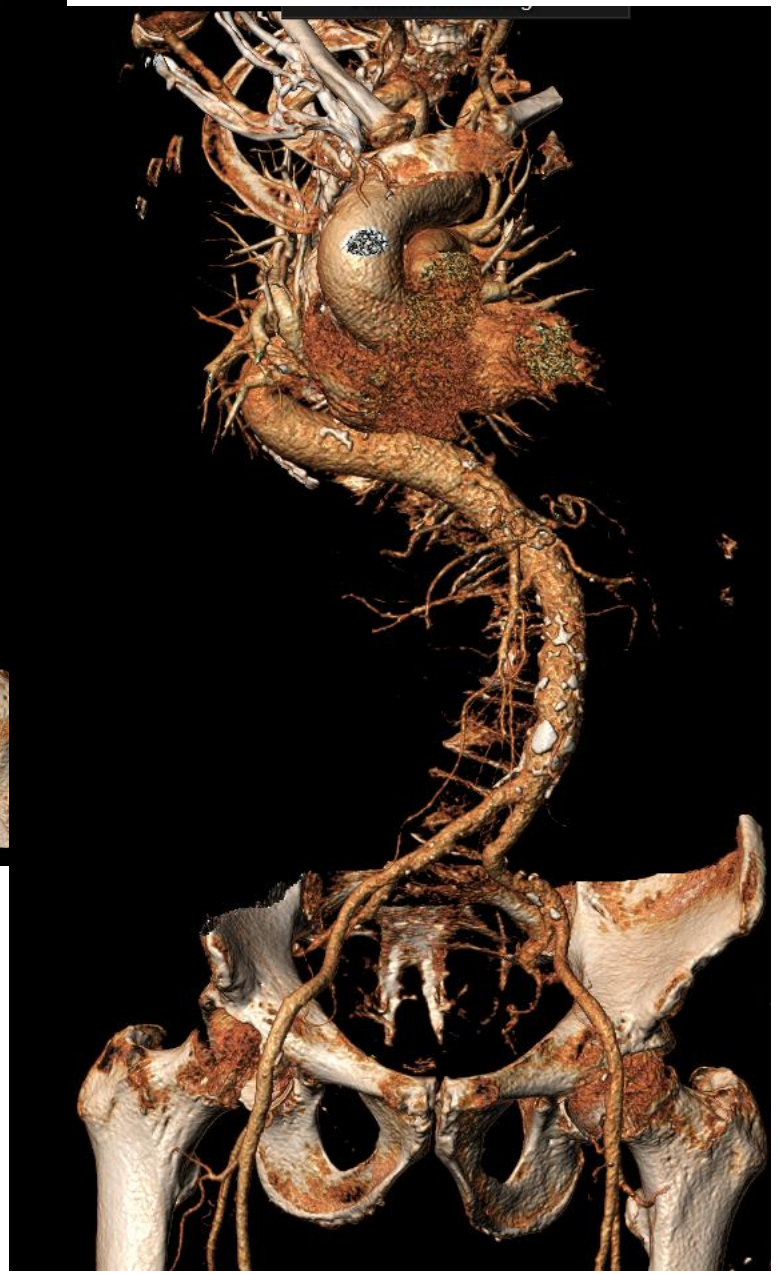
Left femoral bifurcation

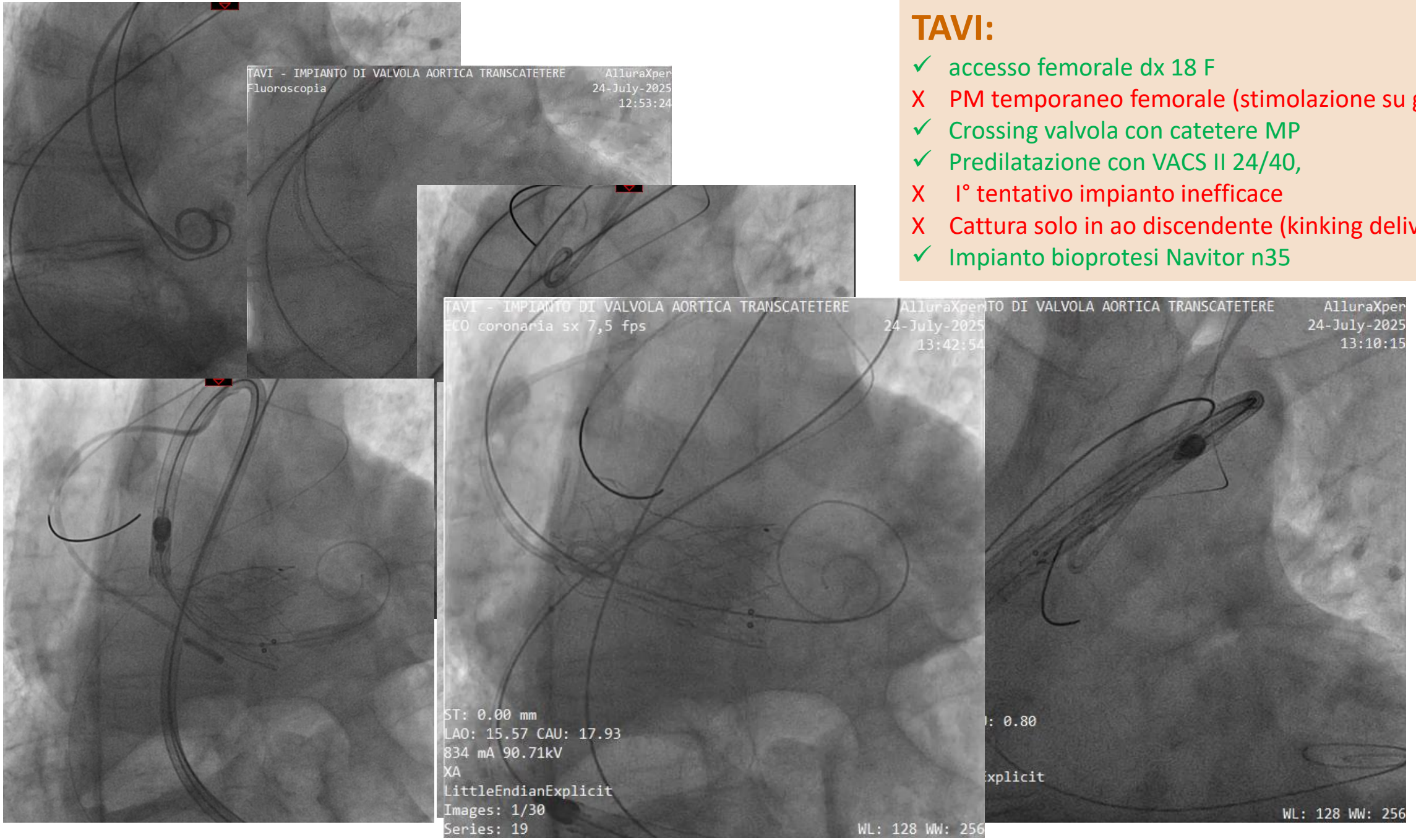












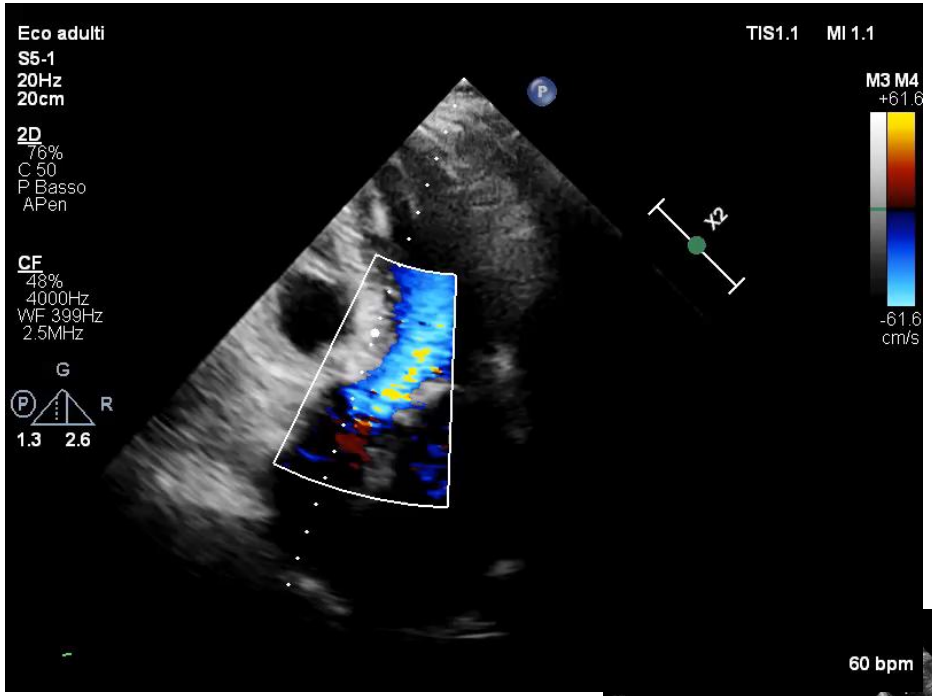
TAVI:

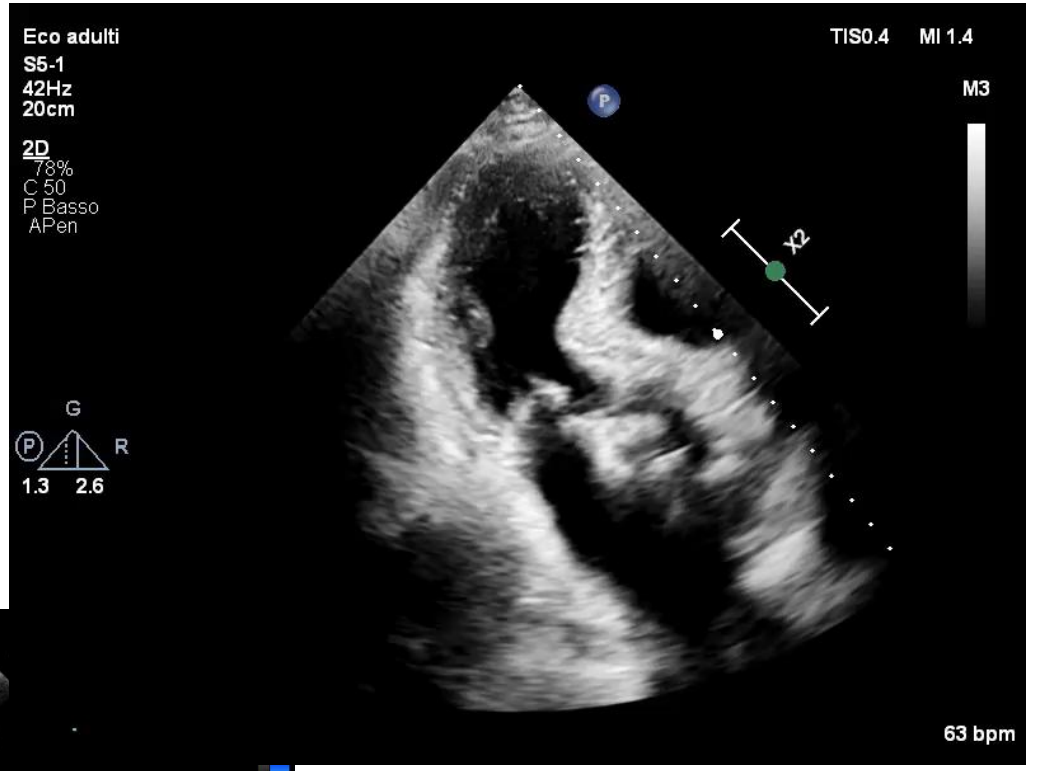
- ✓ accesso femorale dx 18 F
- X PM temporaneo femorale (stimolazione su guida)
- ✓ Crossing valvola con catetere MP
- ✓ Predilatazione con VACS II 24/40,
- X I° tentativo impianto inefficace
- X Cattura solo in ao discendente (kinking delivery?)
- ✓ Impianto bioprotesi Navitor n35

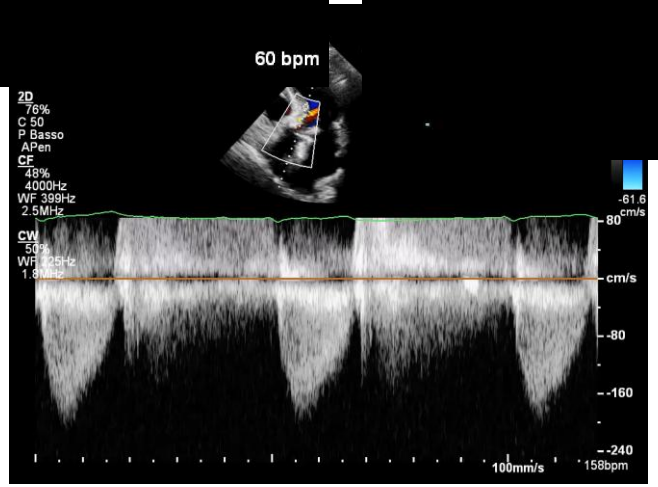
ECG:

-Pre: RS BAV 1° grado +BBDx.

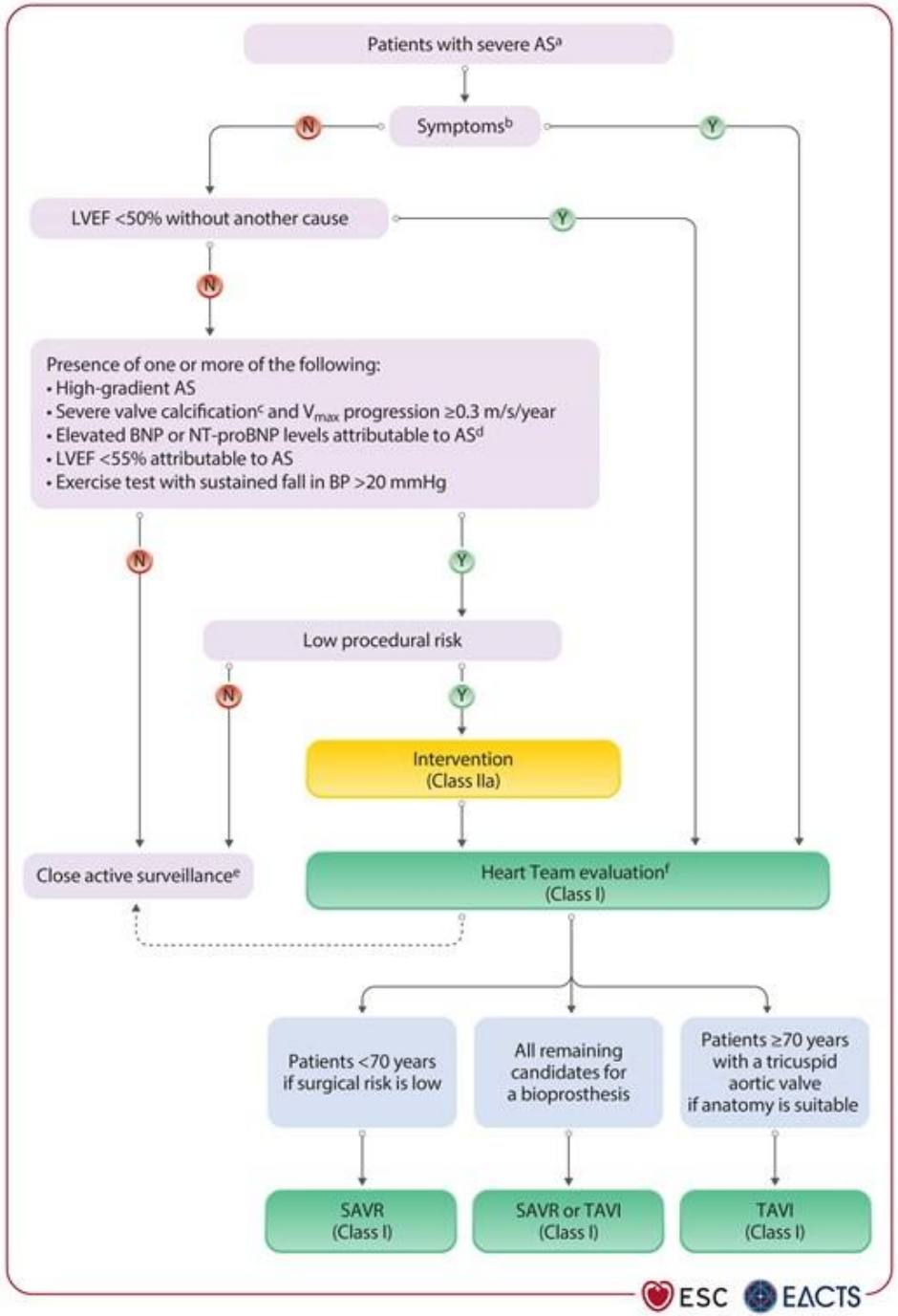
- Post: fasi di BAV totale con ipotensione→ posizionato PMT giugulare dx







ECO POST: Bioprotesi aortica in sede, normofunzionante (G max 15/G medio 8 mmHg, DVI 0,62), evidenza di leak di entità lieve moderata da ore 11 a ore 3. IM +/++. FE 64%


Patients with severe AS[a]
Symptoms[b]
N
Y
LVEF <50% without another cause
Y
N
Presence of one or more of the following:
• High-gradient AS
• Severe valve calcification[c] and V_{max} progression ≥0.3 m/s/year
• Elevated BNP or NT-proBNP levels attributable to AS[d]
• LVEF <55% attributable to AS
• Exercise test with sustained fall in BP >20 mmHg
N
Y
Low procedural risk
N
Y
Intervention
(Class IIa)
Close active surveillance[e]
Heart Team evaluation[f]
(Class I)
Patients <70 years
if surgical risk is low
All remaining
candidates for
a bioprosthesis
Patients ≥70 years
with a tricuspid
aortic valve
if anatomy is suitable
SAVR
(Class I)
SAVR or TAVI
(Class I)
TAVI
(Class I)
ESC
EACTS


ESC Congress
2025 Madrid
TOGETHER WITH
World Congress of
Cardiology
29 August to 1 September


BIELLA CUORE
12-13 SETTEMBRE 2025

Grazie!!!!

BIELLA CUORE
2025