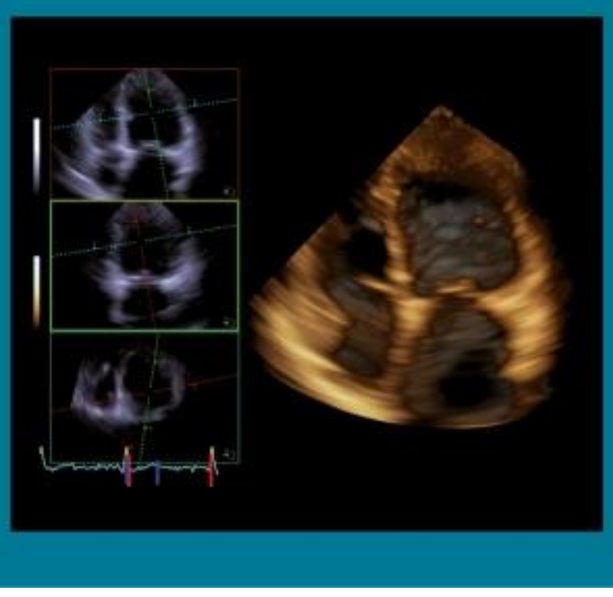


EuroValve

October 24-25 2014, Rome, Italy

www.eurovalvecongress.com

Percutaneous valve in valve treatment of degenerate tricuspid bio prosthesis by trans femoral route

Fausto Castriota, MD (a), Flavio Ribichini, MD (b), Paolo Sbarzaglia, MD (a), Mauro Del Giglio, MD (a), Gabriele Pesarini, MD, PhD (b), Corrado Vassanelli, MD (b) and Alberto Cremonesi, MD (a)

Patient #1

Remote clinical history

- Male born in 1954, aged 62 at the time of referral.
- Chronic AF since the age of 25 and since then in OAC

- 1981: Aortic and mitral valve replacement (mechanic valves)
- **2001: Severe tricuspid regurgitation: Perimount Magna 31mm bioprosthesis.**

- COPD with recent worsening, in domiciliary oxygen therapy
- Severe tricuspide regurgitation due to bioprosthesis disfunction

Third cardiac surgery:

- Not liked by the patient (and the surgeons)
- EuroSCORE logistic: 44.4%
- EuroSCORE additive: 13

Patient #2

- Female born in 1950, aged 66 at the time of referral.

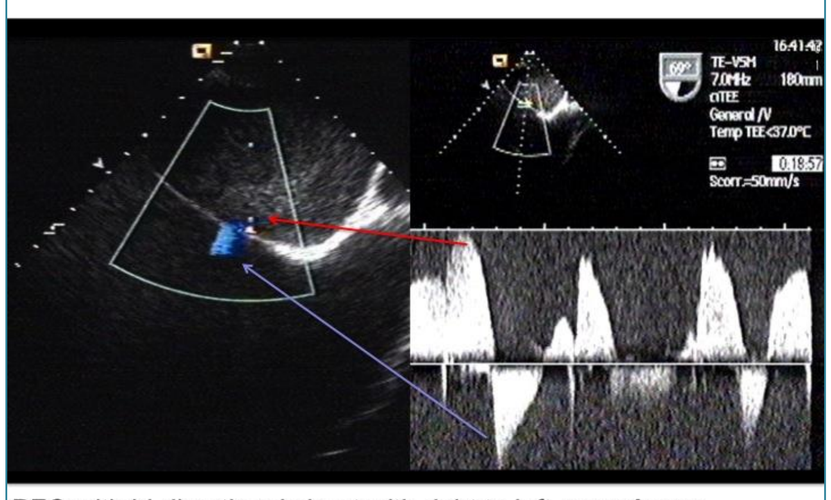
- 1985: Aortic and mitral valve replacement (mechanic valves) and tricuspid valve replacement (bioprosthesis)
- 1990 and 2005: tricuspid balloon valvuloplasty because of tricuspid bioprosthesis stenosis

- Severe restrictive lung disease
- Third recurrence of tricuspid bioprosthesis stenosis

Second cardiac surgery:

High risk because of severe lung disease

Patient #1 *Pre-operatory TEE*



PFO with bi-directional shunt with right to left ***prevalence***

Patient #1 *Interventional technique*

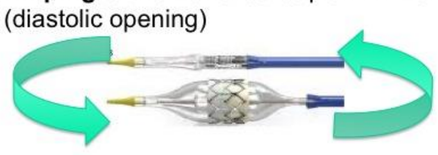
Operative roadmap

- General anesthesia
- Intra-operatory trans-esophageal echo-guidance
- Right and left femoral venography
- Arterial and venous femoral access for hemodynamic monitoring and eventual ventricular pacing
- Extra-Stiff wire 0.035" in a distal pulmonary artery branch
- Bioprosthesis valvuloplasty with 25mm balloon
- 29mm Edwards Sapien valve implantation
- Manual management of the venous vascular access

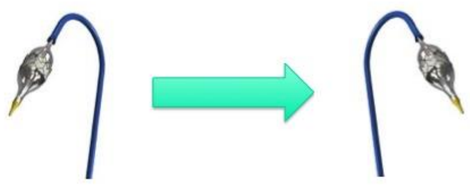
Patient #1 *Interventional technique*

Percutaneous valve preparation

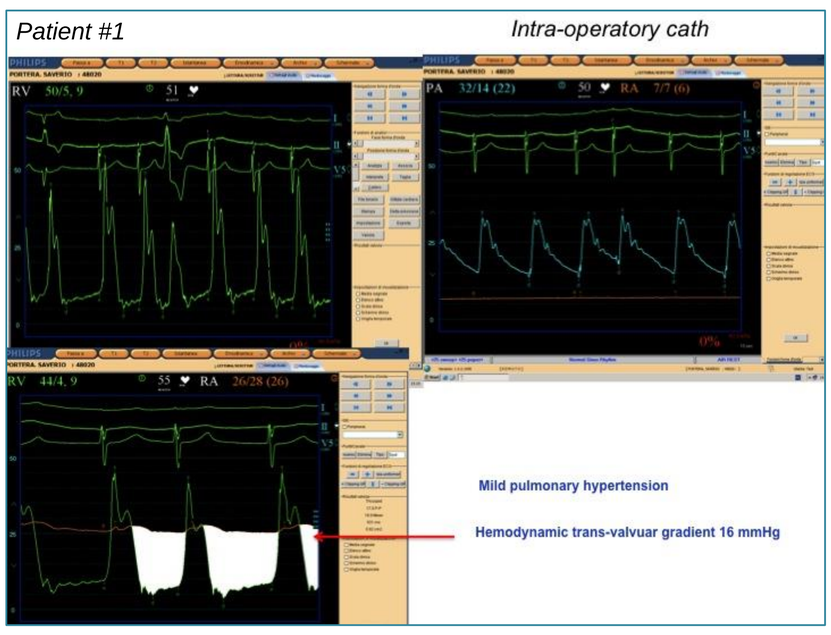
- **Reverse-crimping** of the Edwards-Sapien XT 29mm for functioning in a AV valve (diastolic opening)



- Insertion of the **Novaflex with 180° rotation (posterior advancement) to turn the catheter from left to right (RA to RV).**

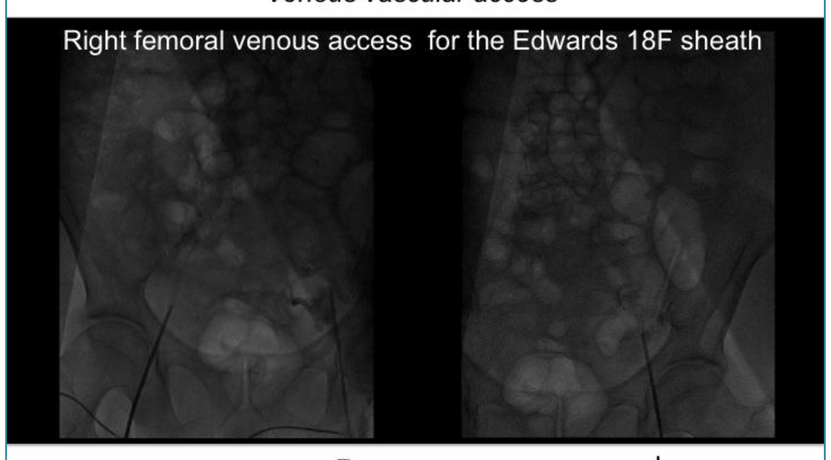


Patient #1 *Intra-operatory cath*



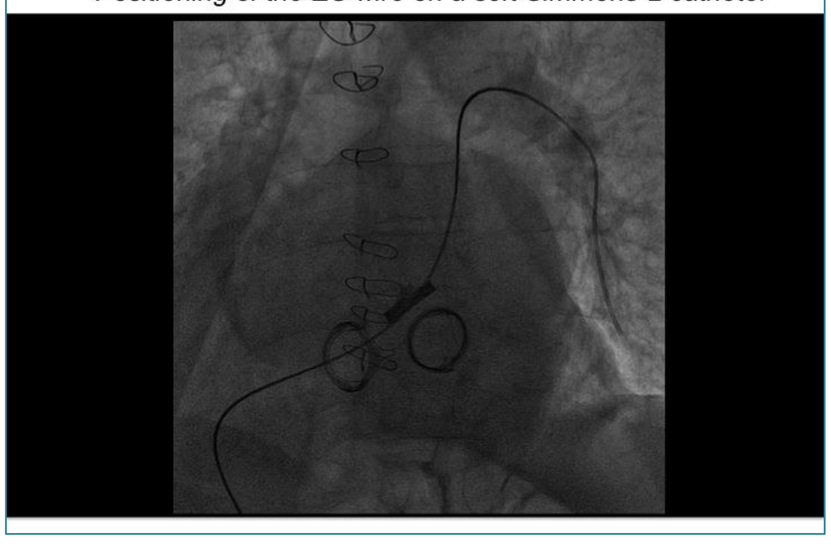
Patient #1 *Interventional technique*

Venous vascular access



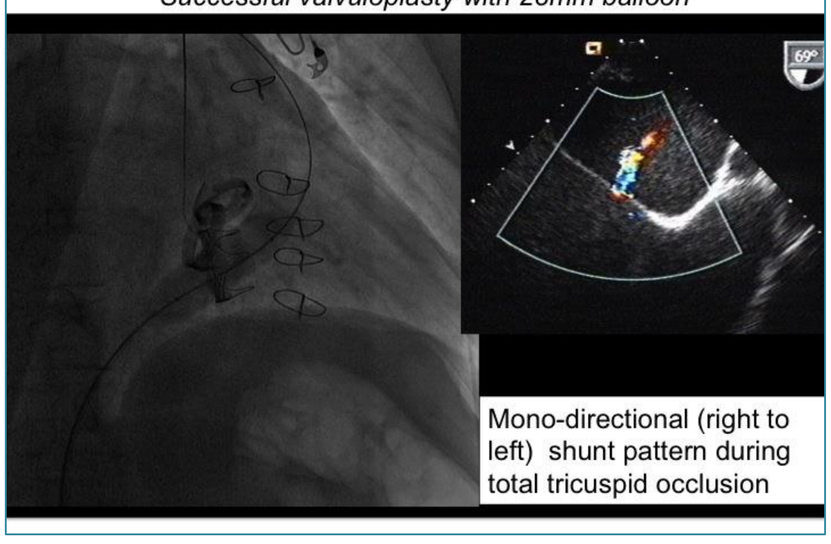
Patient #1 *Interventional technique*

Positioning of the ES wire on a soft Simmons-2 catheter



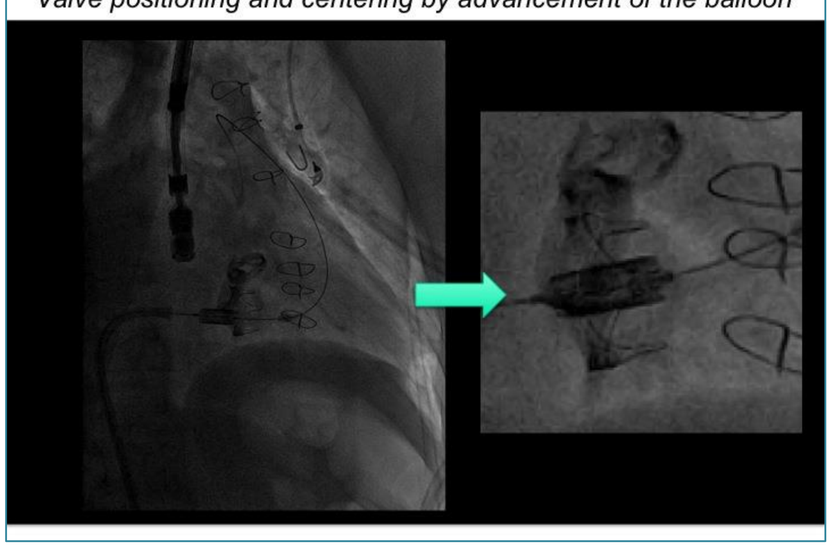
Patient #1 *Interventional technique*

Successful valvuloplasty with 28mm balloon



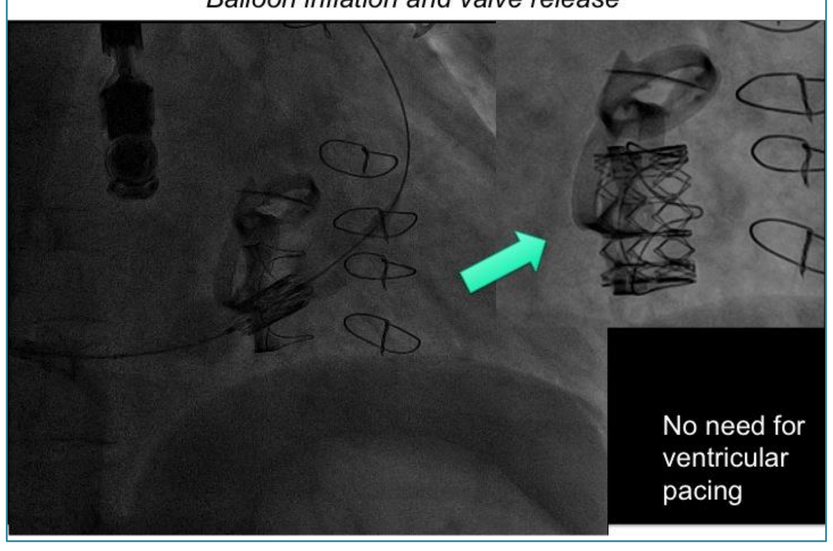
Patient #1 *Interventional technique*

Valve positioning and centering by advancement of the balloon

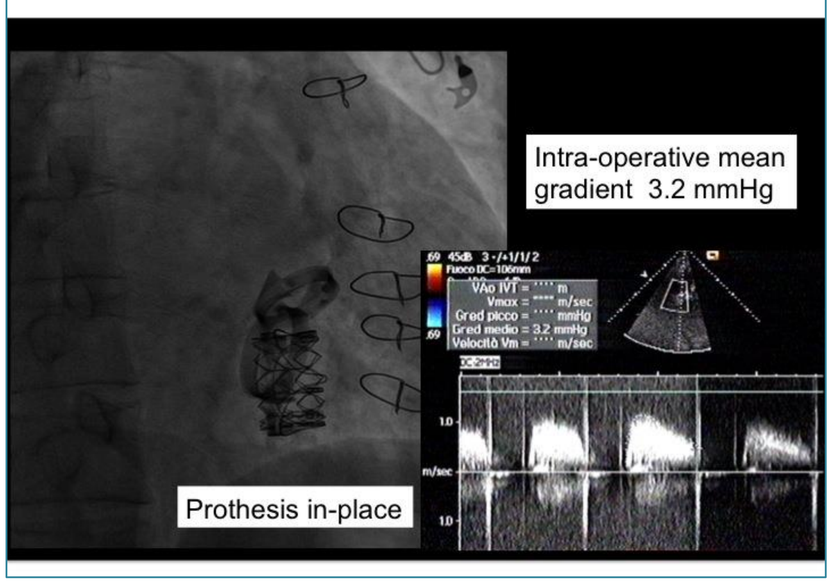


Patient #1 *Interventional technique*

Balloon inflation and valve release

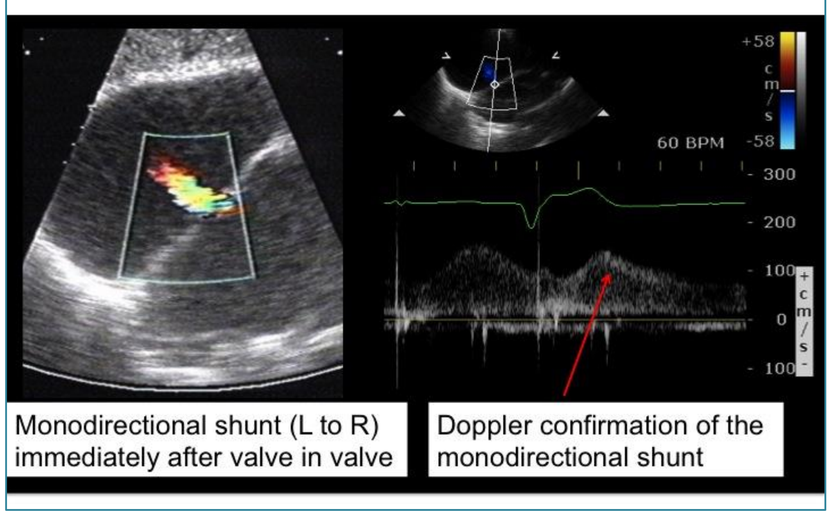


Patient #1 *Operative result*



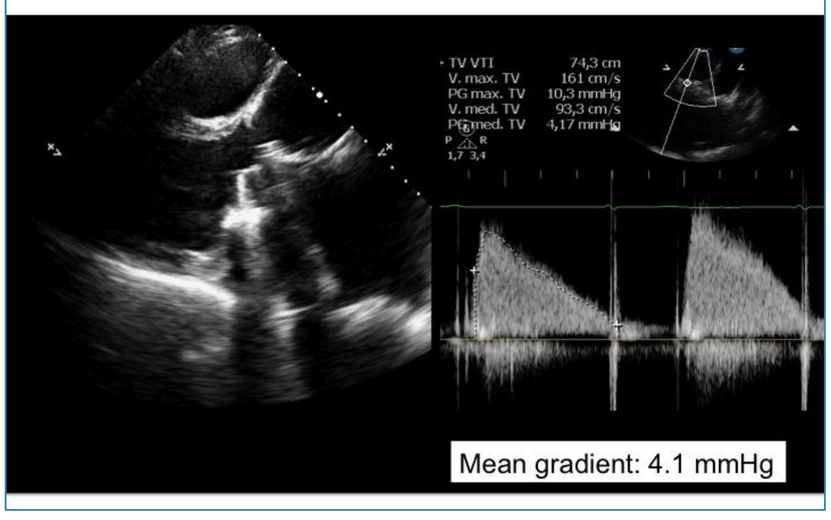
Patient #1 *Immediate echographic result*

Acute echocardiografic assessment of the PFO reversal shunt



Patient #1 *Pre-discharge echography*

Pre-discharge echographic control



Clinical outcome

HOSPITAL DISCHARGE AND CLINICAL FOLLOW-UP

- No periprocedural complications
- Both patients discharged after 7 and 9 days

- At 3/6 months f-up, NYHA class I confirming good long term result of the procedure.

Maria Cecilia Hospital Cotignola

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