

2016 | PCR
london valves



Transcatheter Mitral Valve Implantation

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Potential conflicts of interest

Speaker's name: Corrado Tamburino

Speakers Honoraria: Abbott, Medtronic, Biosensors, Stentys

- The valve
 - 31mm **TA** valve
 - Bovine pericardium
 - Nitinol frame
 - Polyester cover



- The ring **TF** implant
 - Polymer tube
 - Nitinol hook
 - Polyester cover

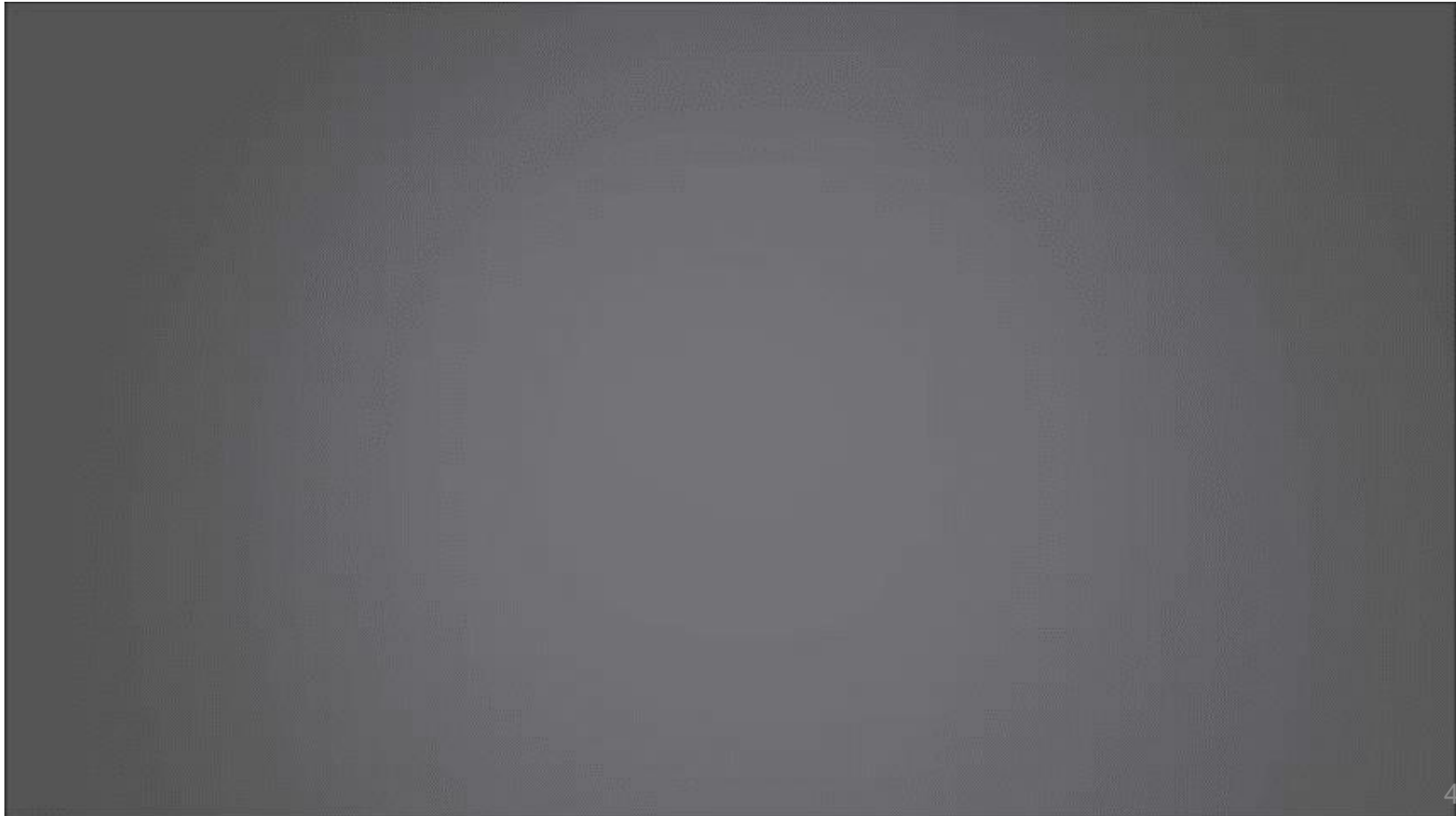


3-step approach

Step 1 : Guide wire looped around mitral leaflets

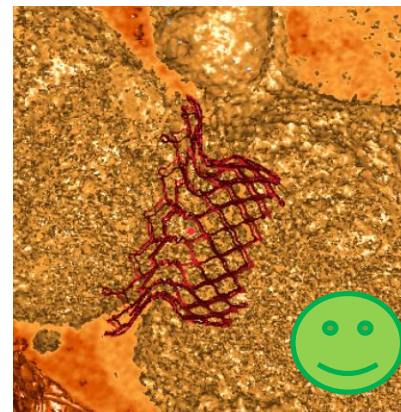
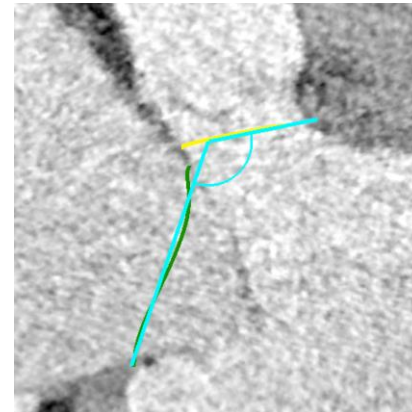
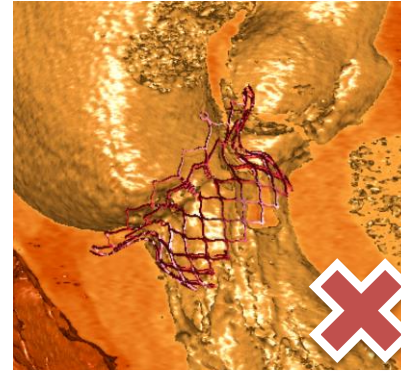
Step 2 : Ring implanted over guide wire loop

Step 3 : Valve-in-ring implantation

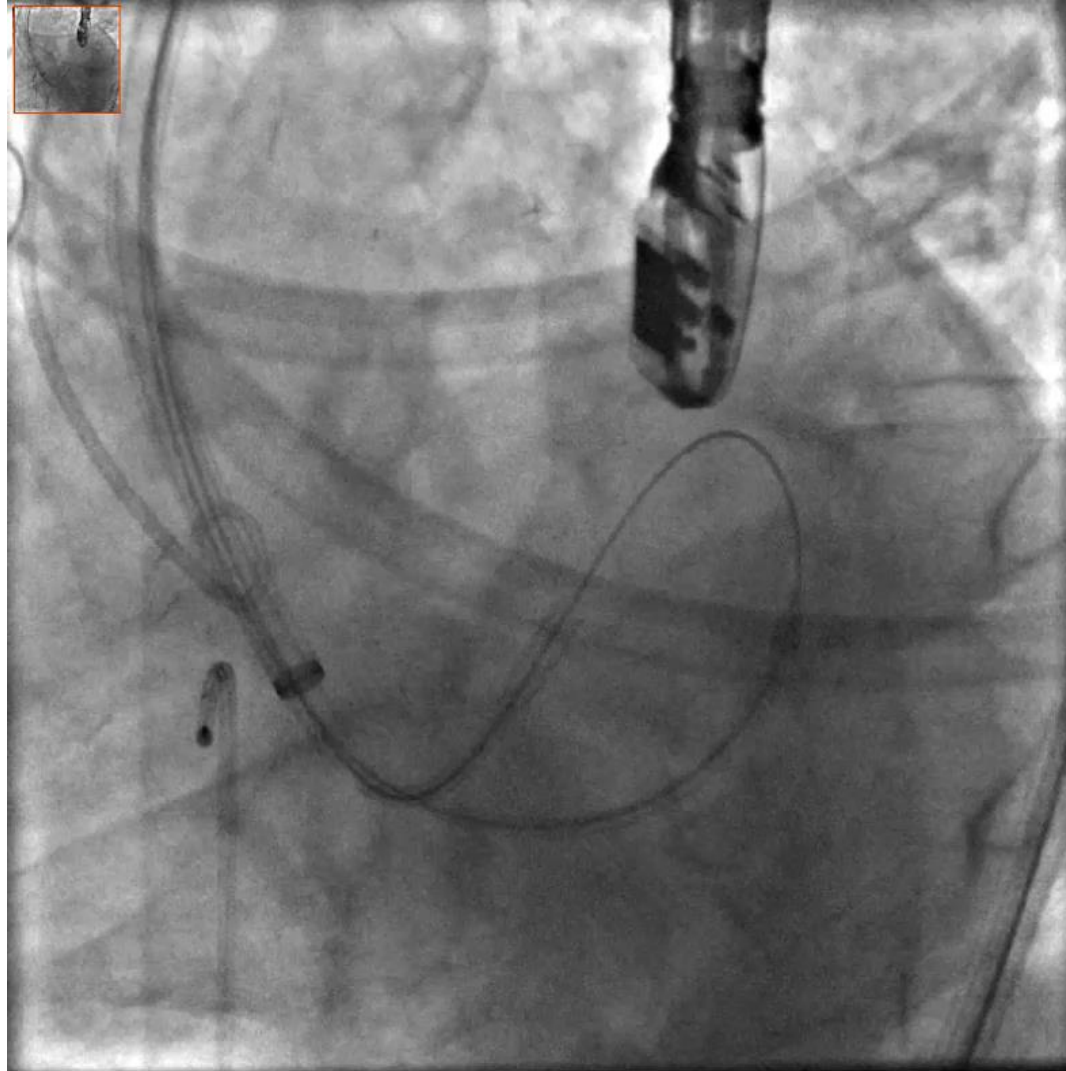


Referral criteria and anatomical limitations

- Anatomy sizes that can currently be treated
 - Annulus range : 32-45mm
- Virtual implantation on CT data to assess
 - LVOTO risk
 - LAA patency
 - Contact areas with LV wall
- Exclusions
 - Calcified native leaflets



Ring insertion and closure



Clinical experience - Demographics

Compassionate Use							
Case #	Age	Gender	Etiology	MR grade	NYHA	LVEF (%)	STS PROM (%)
1	79	Male	DMR	3+	III	50	4,9
5	69	Male	FMR	4+	III	30	2,9
6	65	Female	FMR	4+	III	20	3,1

Feasibility Study							
Case #	Age	Gender	Etiology	MR grade	NYHA	LVEF (%)	STS PROM (%)
2	75	Male	DMR	3+	III	31	2,5
3	57	Male	FMR	4+	III	35	2,1
4	74	Female	FMR	3+	III	36	4,3

Follow-up Status

Compassionate Use				
Case #	Clinical status	Follow-up duration (in days)	Technical & Device success *	Comments
1	Death	4	No	Conversion to surgical MVR. Multi-organ failure at day 4.
5	Alive	60	Yes	NYHA II @ 30 days visit
6	Death	4	Technical success	Multi-organ failure at day 4. Proper functioning of HighLife valve was confirmed

Feasibility study				
Case #	Clinical status	Follow-up duration (in days)	Technical & Device success *	Comments
2	Alive	140	Yes	NYHA I @ 90 days visit
3	Alive	63	Yes	NYHA II @ last FU visit
4	Alive	62	Yes	NYHA II @ 30 days visit

*) per MVARC definition

Lessons learned

- Procedure reveals feasible and safe
 - Reversibility of loop placement is confirmed
 - Ring insertion and closure is efficient
 - Valve delivery over trans-apical site is efficient
 - No PVL, no gradient
 - Up to 45mm annulus can be treated currently
- Multi-modality imaging very important
 - Pre and intra procedural planning with CT is critical
 - Echocardiography is instrumental for loop position