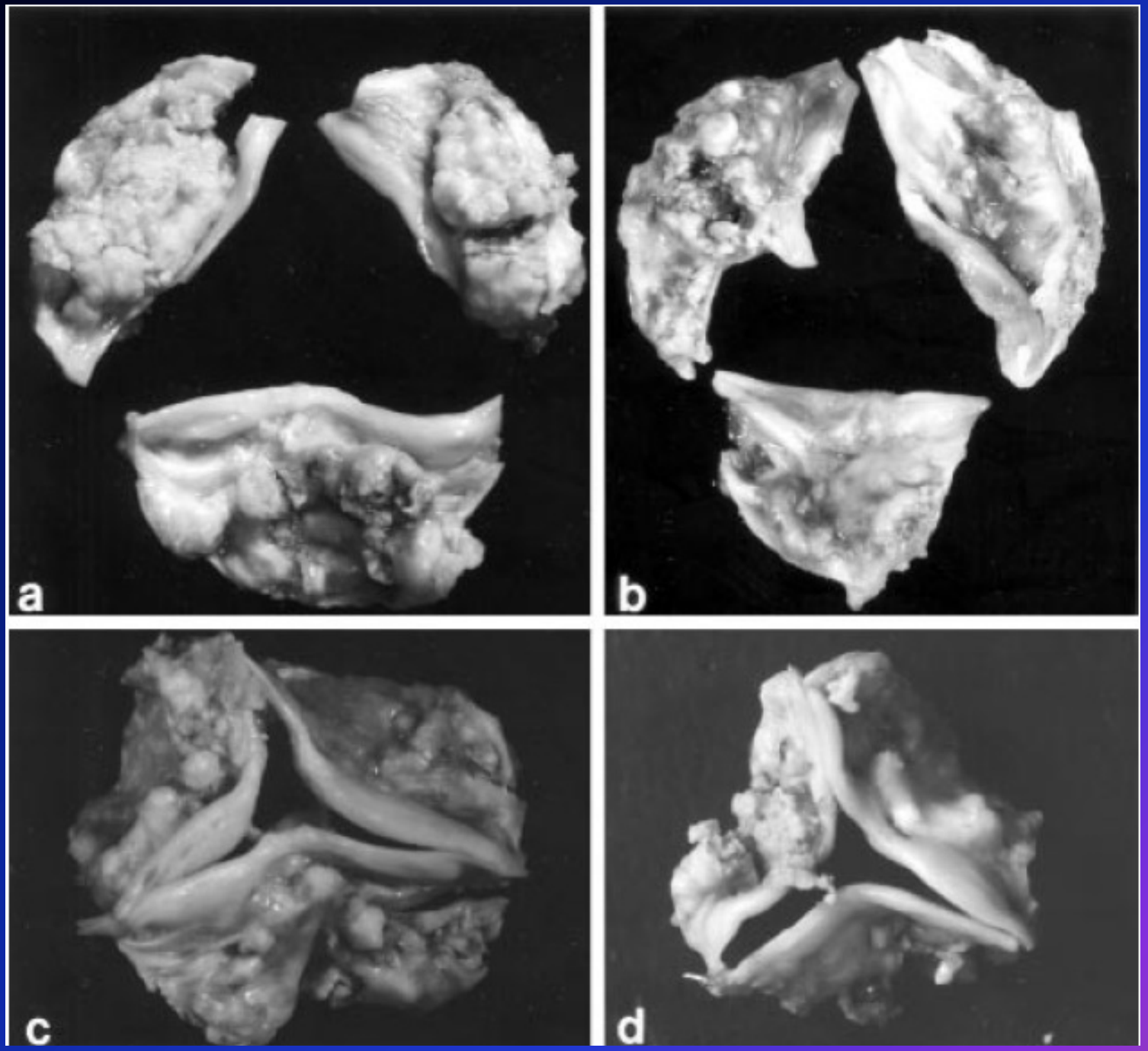
VII CONGRESSO DI ECOCARDIOCHIRURGIA

Milano 6 Maggio 2014
Atahotel Executive

Il Ruolo della Valvuloplastica in Epoca TAVI nel Trattamento della Stenosi Valvolare Aortica dell'Anziano

Andrea Santarelli
Dipartimento Malattie Cardiovascolari
Ospedale Infermi, Rimini


a
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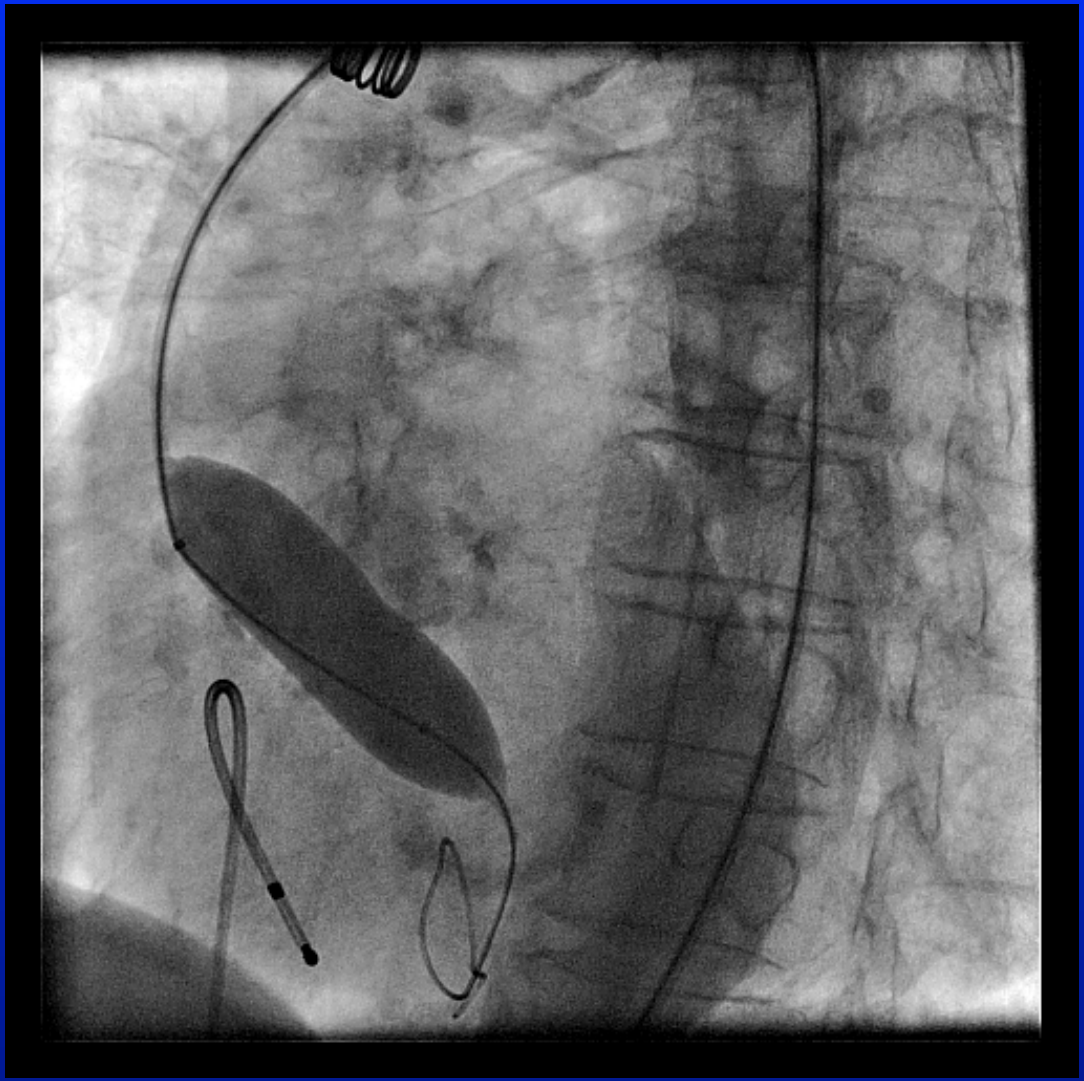
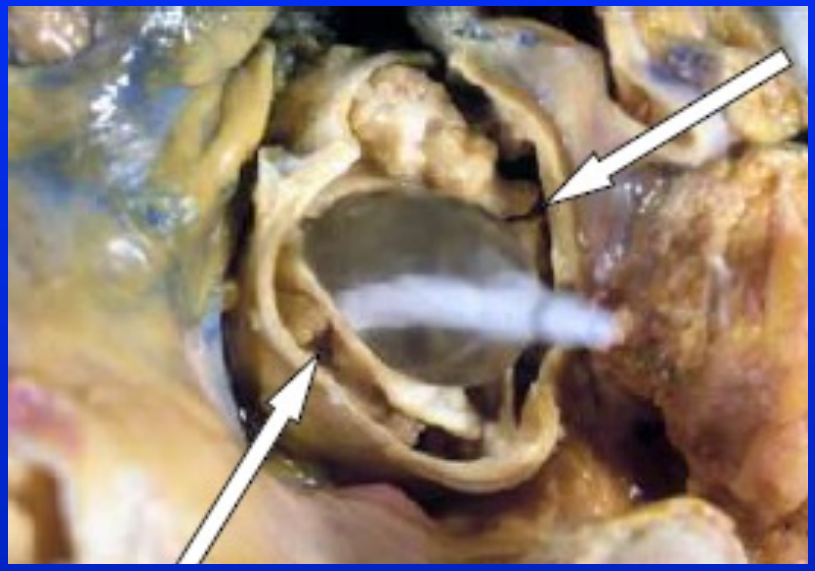
Dilatazione Percutanea della Valvola Aortica

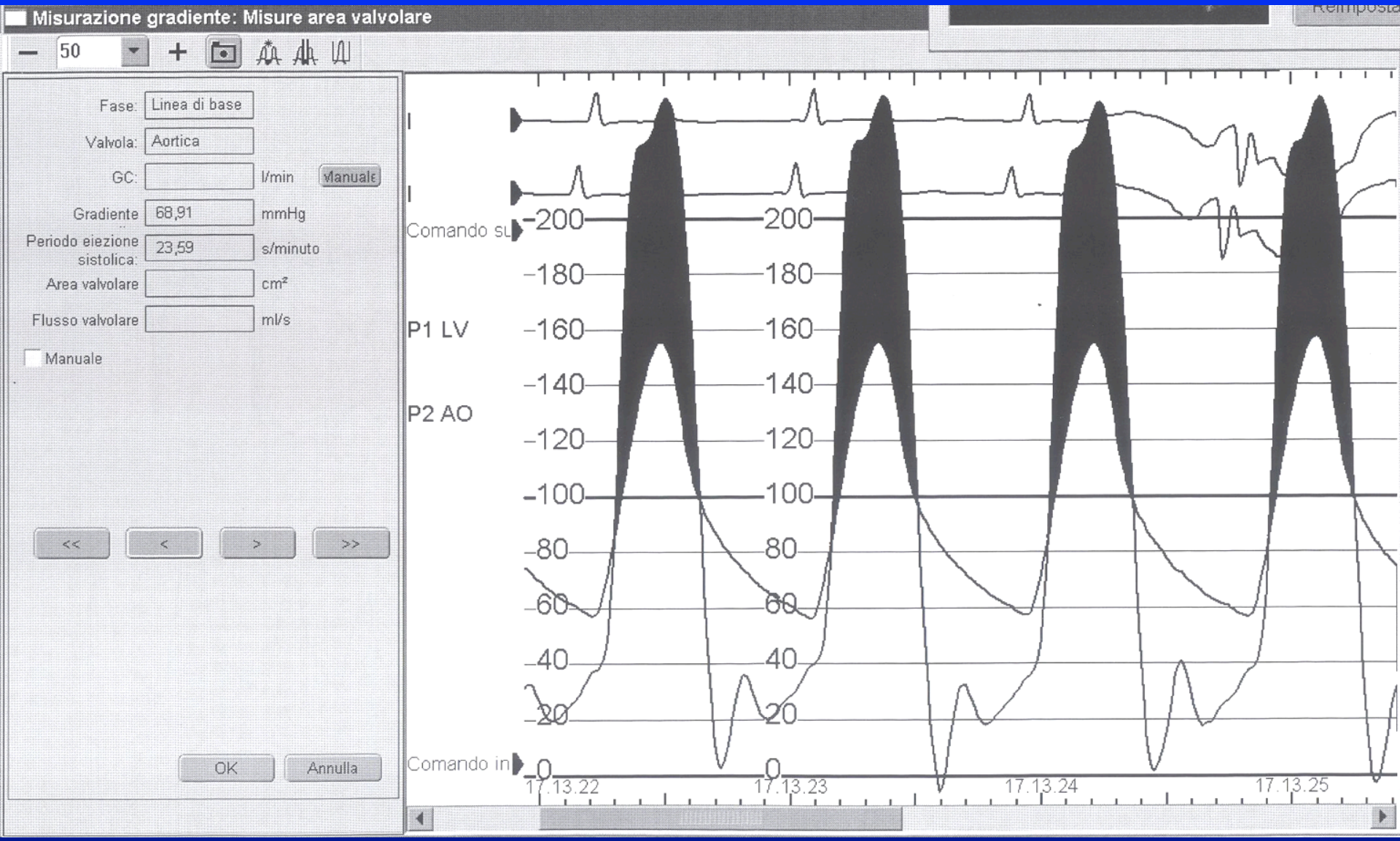


Valvulopastica Aortica: Effetti

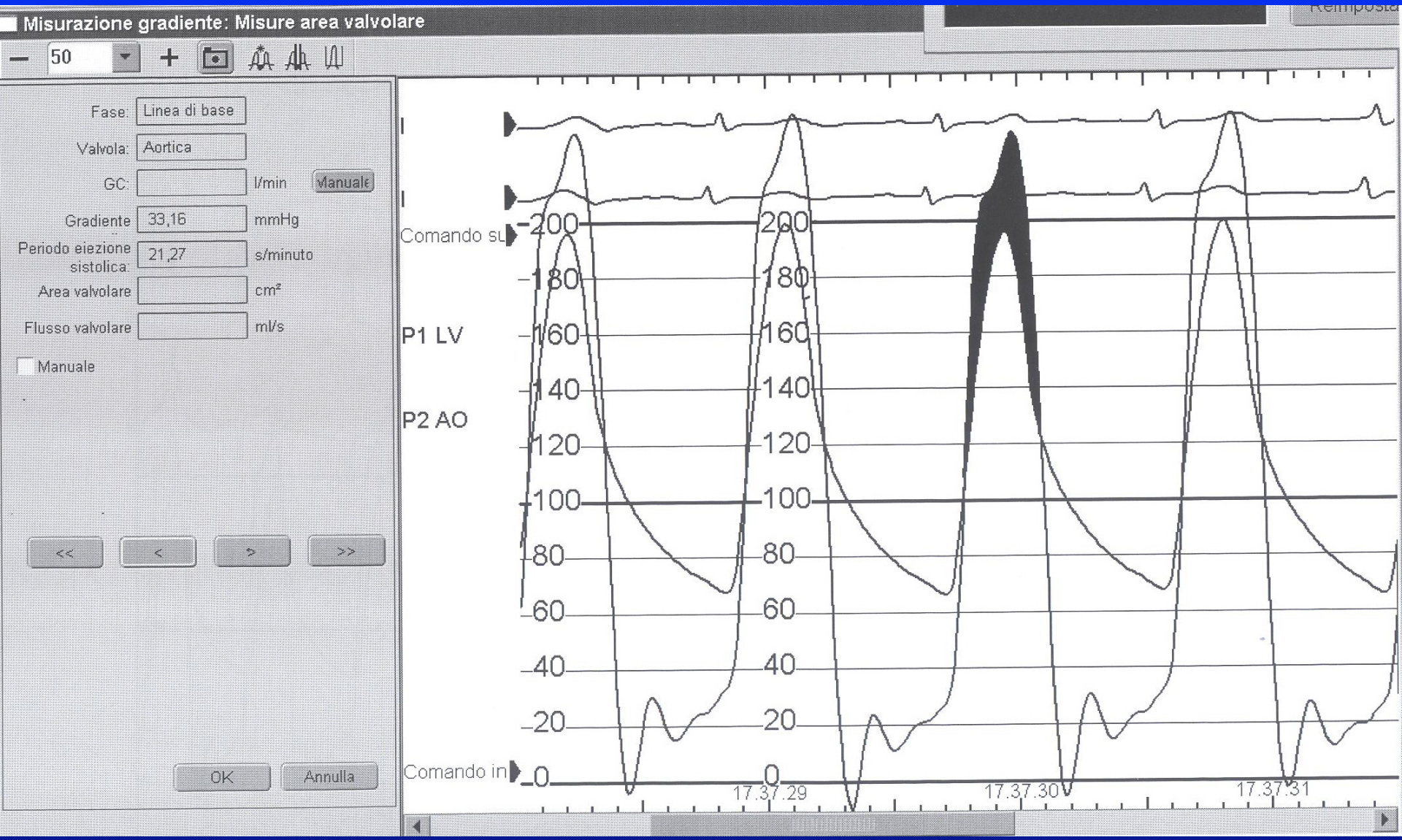


Rottura dei noduli calcifici che creano dei punti cardini nelle cuspidi con il risultato di determinare una maggiore mobilità delle stesse

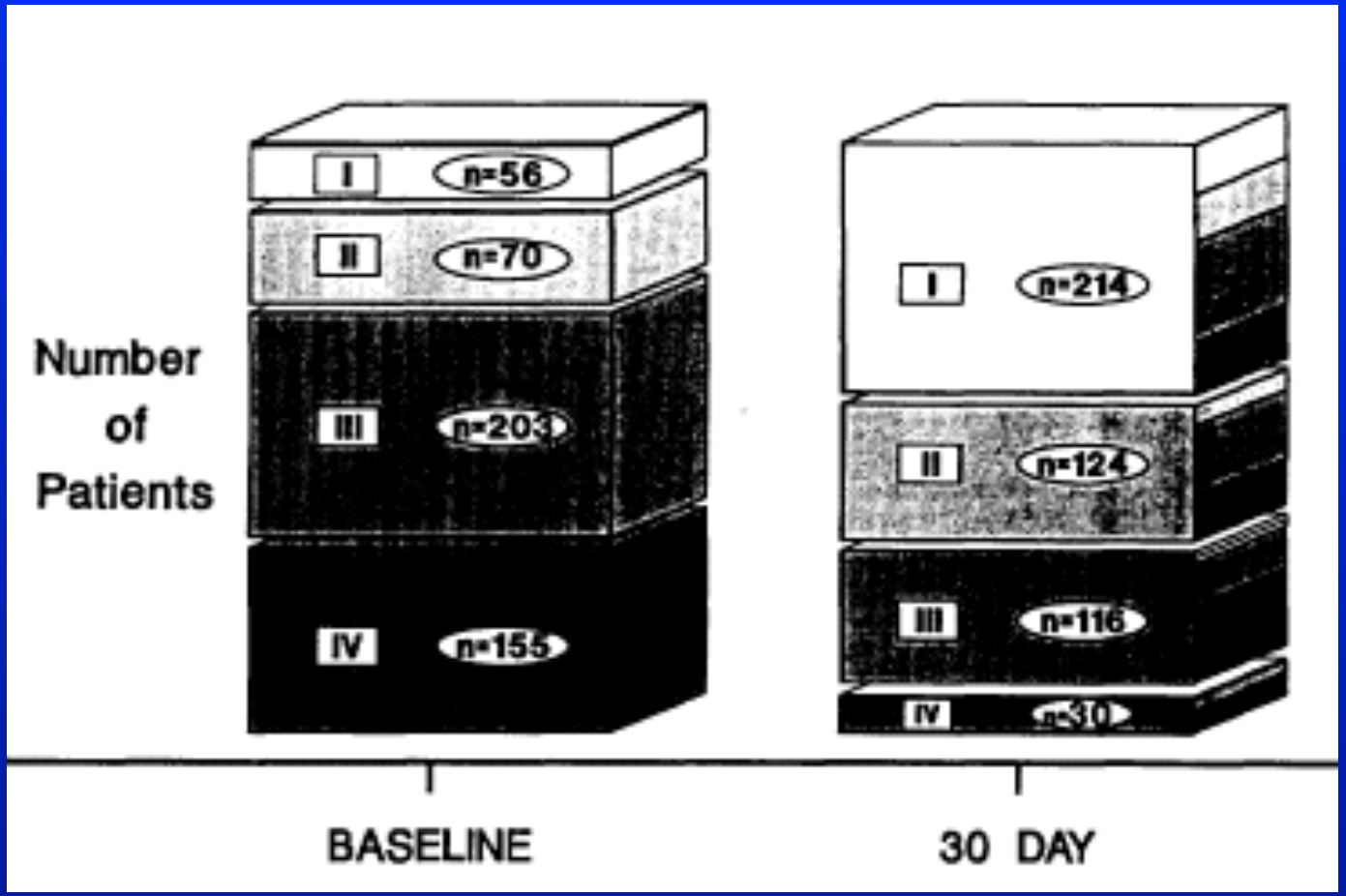
Gradiente Medio TransValvolare: 69 mm Hg



Gradiente Medio Post VAP: 33 mm Hg



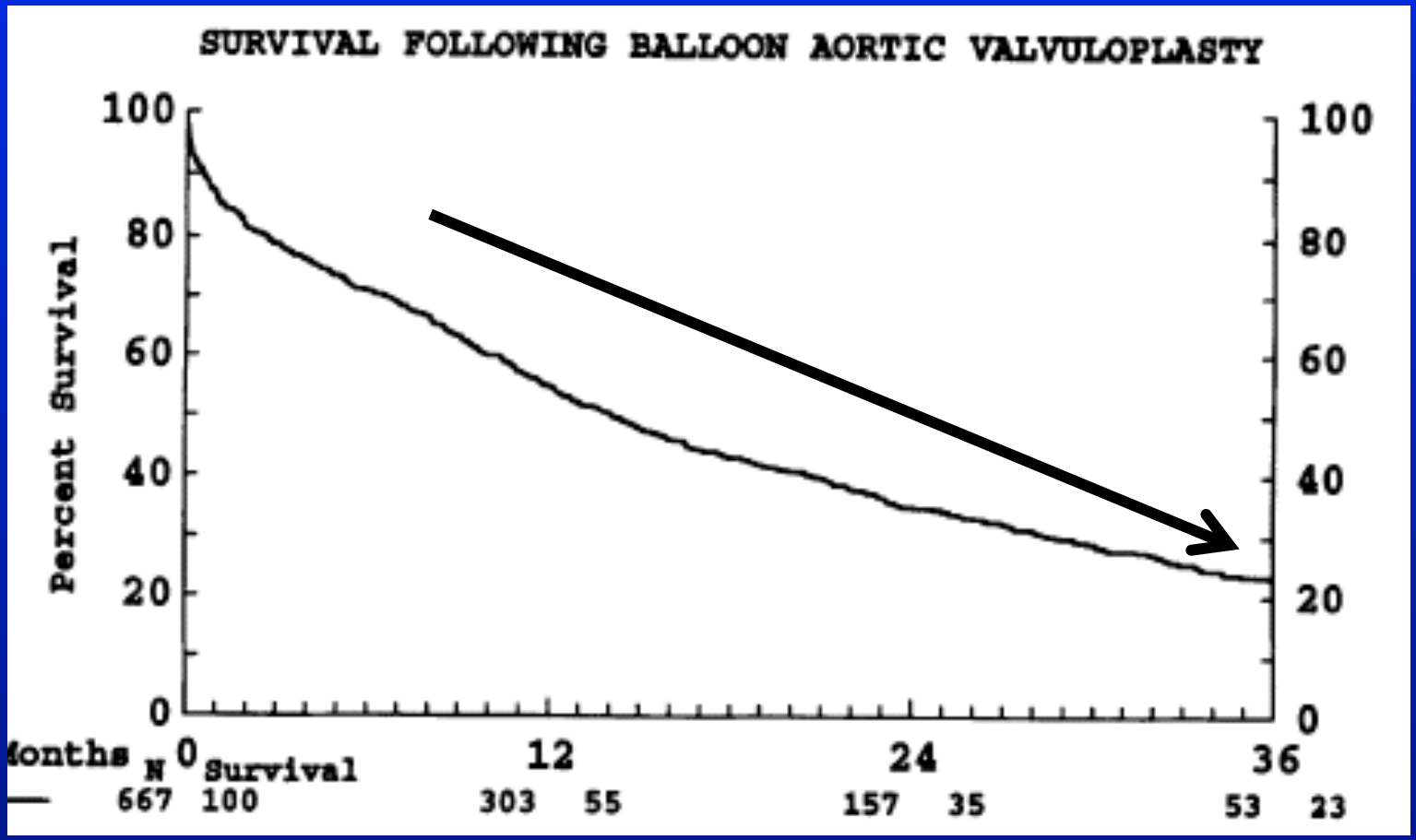
Outcome Ospedaliero



NHLBI Registry, Circulation 1991; 84: 2383-2397

Valvuloplastica Aortica Percutanea: Outcome al FU

674 pz trattati con VAP dal 1987 al 1989
Registro NHLBI



Otto et al, Circulation 1994; 89:642-650

Outcome Ospedaliero

Complication	n (%)
Death	17 (3)
Patients with any severe complication	167 (25)
Type of complication	
Hemodynamic	
Prolonged hypotension	51 (8)
CPR required	26 (4)
Pulmonary edema	19 (3)
Cardiac tamponade	10 (1)
IABP use	11 (2)
Acute valvular insufficiency	
Aortic	6 (1)
Mitral	1 (0.1)
Cardiogenic shock	15 (2)
Neurological	
Vasovagal reaction	36 (5)
Seizure	15 (2)
Transient loss of consciousness	4 (0.6)
Focal neurological event	13 (2)
Respiratory	
Intubation	28 (4)
Arrhythmia	
Treatment required	64 (10)
Persistent bundle-branch block	34 (5)
AV block requiring pacing	30 (4)
VF or VT requiring countershock	18 (3)
Vascular	
Significant hematoma	44 (7)
Vascular surgery performed	33 (5)
Systemic embolic event	11 (2)
Transfusion required	136 (20)
Ischemic	
Prolonged angina	9 (1)
Acute myocardial infarction	10 (1)
Other severe complications	
Pulmonary artery perforation	1 (0.1)
Acute tubular necrosis	1 (0.1)

NHLBI Reg Circulation 1991; 84: 2383-2397

Linee Guida ESC 2012:
Indicazioni alla Valvulopastica Aortica Percutanea

This intervention can be considered as a bridge to surgery in haemodynamically unstable patients who are at high risk for surgery (reccomendations class IIb, level of evidence C)

or in patients with symptomatics severe AS who require urgent major non cardiac surgery (reccomandations class IIb, level of evidence C)"

As a palliative measure in selected individual cases when surgery is controindicted because of severe comorbidities and TAVI is not an option

CLINICIAN UPDATE

Percutaneous Balloon Aortic Valvuloplasty Revisited

Time for a Renaissance?

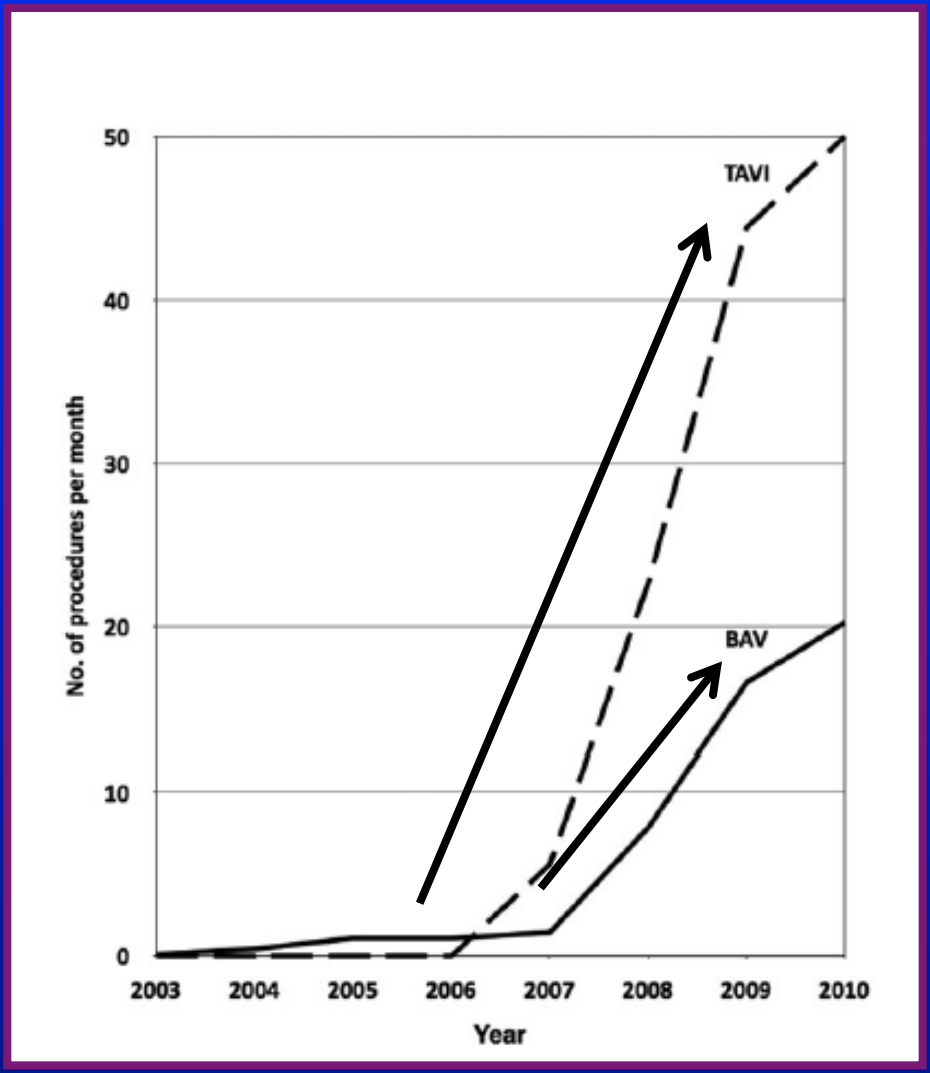
Hideiko Hara, MD; Wesley R. Pedersen, MD; Elena Ladich, MD; Michael Mooney, MD; Renu Virmani, MD; Masato Nakamura, MD; Ted Feldman, MD; Robert S. Schwartz, MD

Hideiko et al, Circulation 2007; 115: e334-e338

Catheterization and Cardiovascular Interventions 81:366–373 (2013)

Standalone Balloon Aortic Valvuloplasty: Indications and Outcomes From the UK in the Transcatheter Valve Era

423 pts in 25 UK centers with TAVI program, 2003 - 2010



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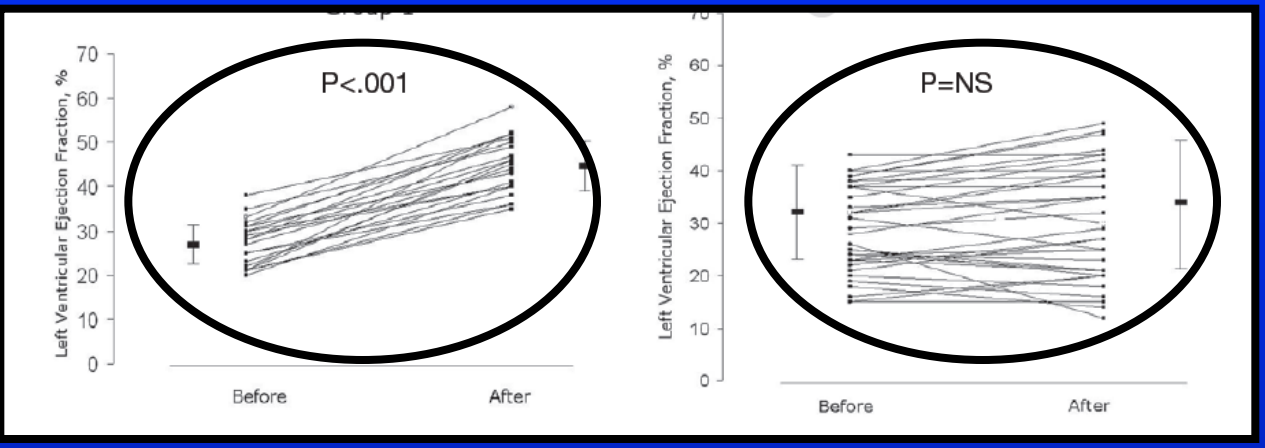
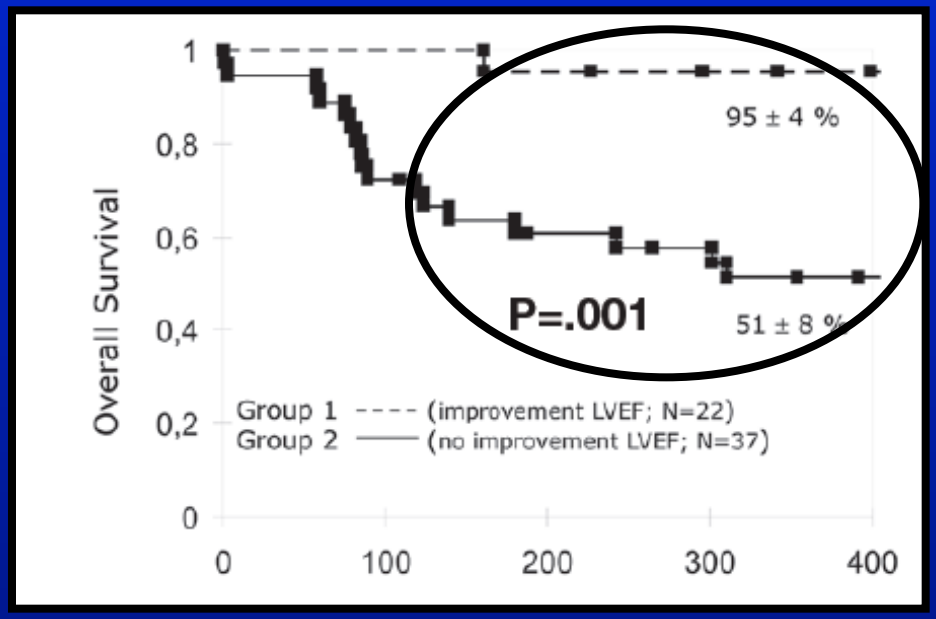
	No.(%) or mean (SD)
Age (years)	80.9 ± 8.5
Male	222 (52.5%)
Previous coronary artery disease	260 (61.5%)
Previous CABG	52 (12.3%)
Previous PCI	49 (11.6%)
Previous BAV	9 (2.1%)
Previous noncoronary thoracotomy	6 (1.5%)
Logistic Euroscore	27.8 ± 16.8
Indication	
Palliation	172 (40.7%)
Bridge to TAVI	144 (34.0%)
Bridge to sAVR	54 (12.8%)
Presentation	
Elective	191 (45.2%)
Urgent	178 (42.1%)
Emergency	54 (12.8%)

Original Contribution

Recovery After Balloon Aortic Valvuloplasty in Patients With Aortic Stenosis and Impaired Left Ventricular Function: Predictors and Prognostic Implications

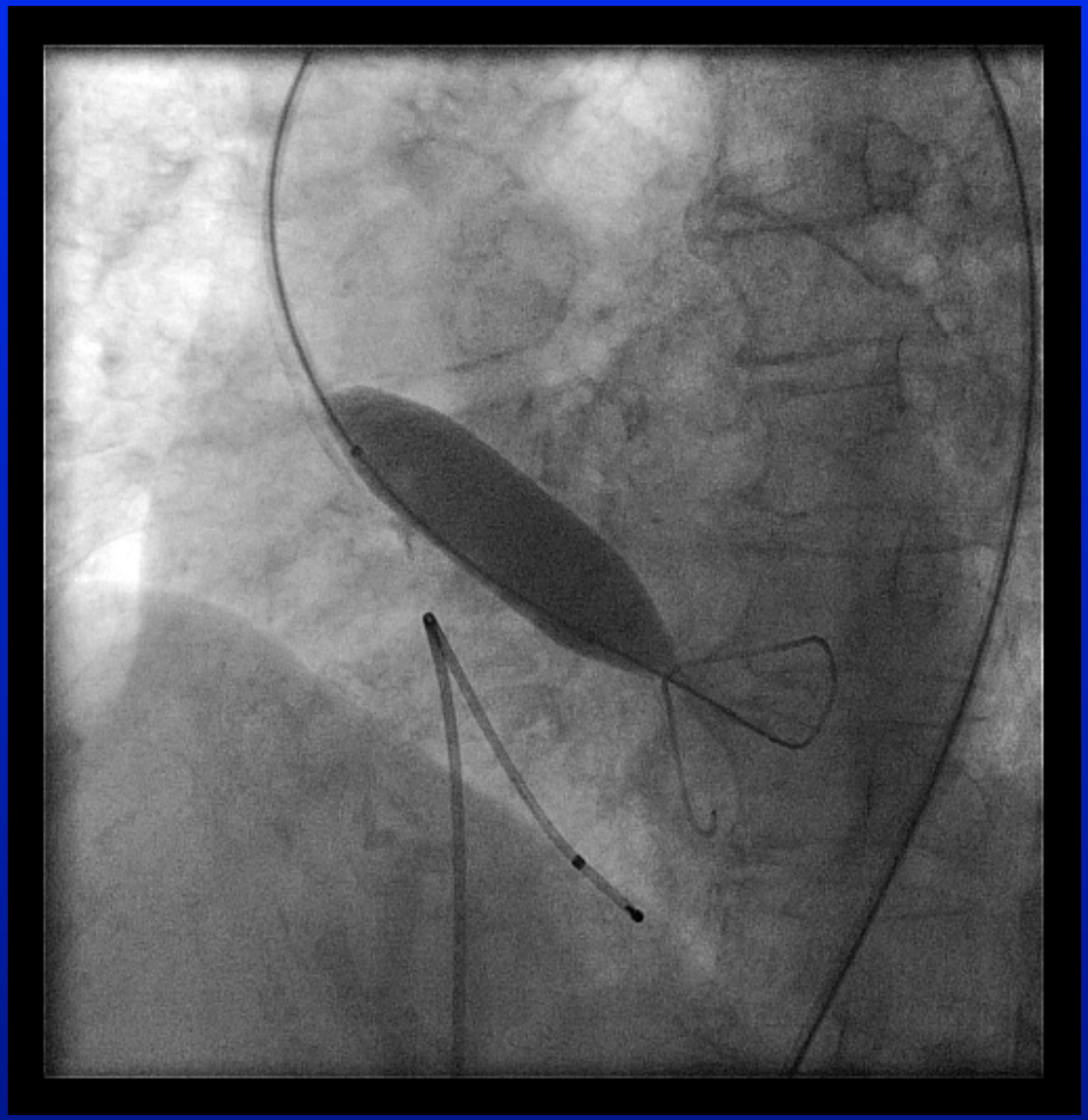




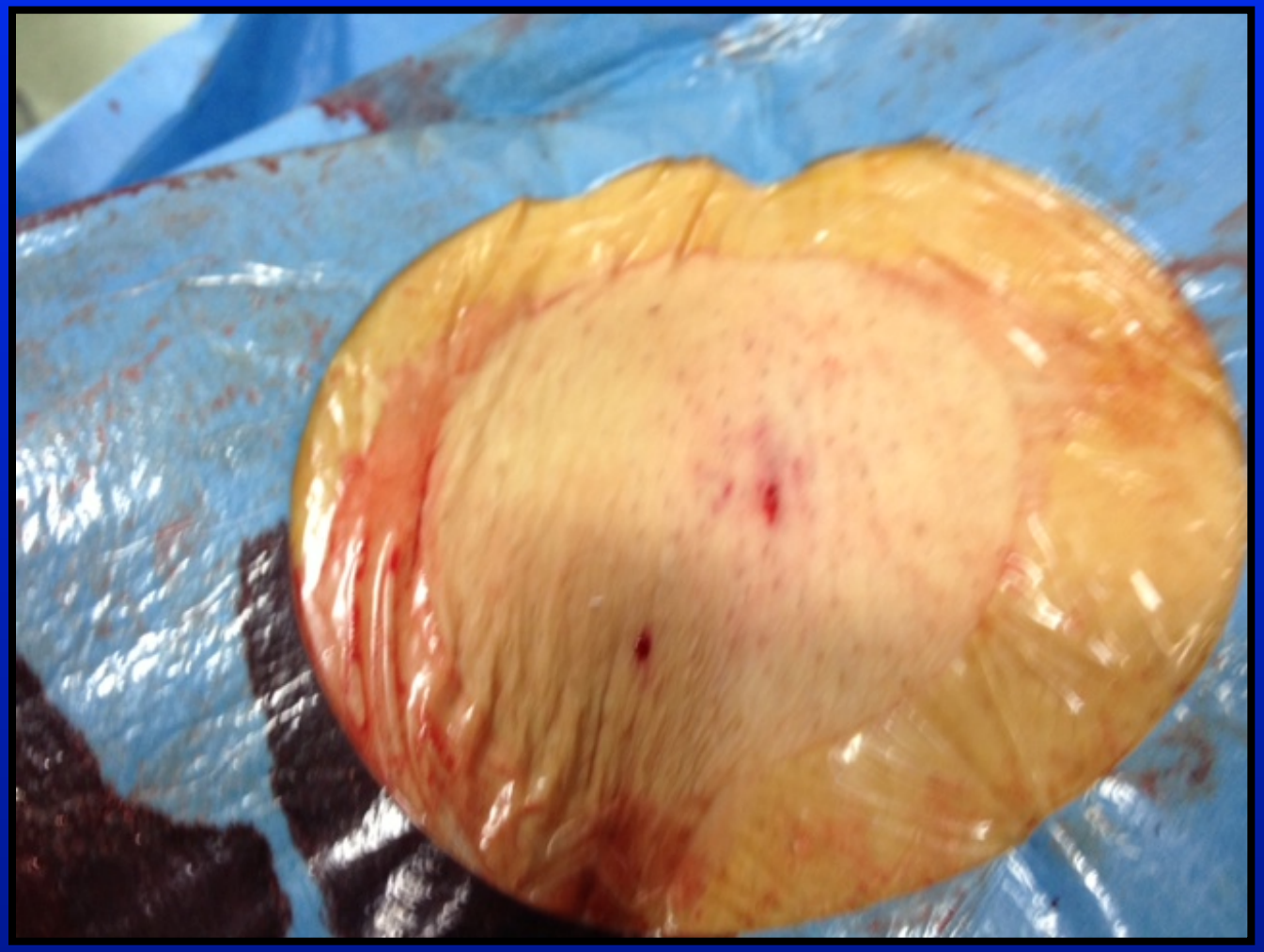
Kefer et al, J Invas Cardiol 2013; 25 (5):235-241

Tecnica Semplificata

Rapid Pacing



Emostasi con Sutura Percutanea e Tecnica Pre-Close



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Major Complications (6.3%)

-Death: 2.4%
-Cardiac Tamponade: 1.0%
-Coronary Embolism: 0.5%
-Stroke: 1.0%
-Surgical Vascular Access Repair: 1.0%
-Permanent Pacemaker Implant: 0.2%
-Transfusion ≥ 2 Units Pacedk Red Cells: 1.2%

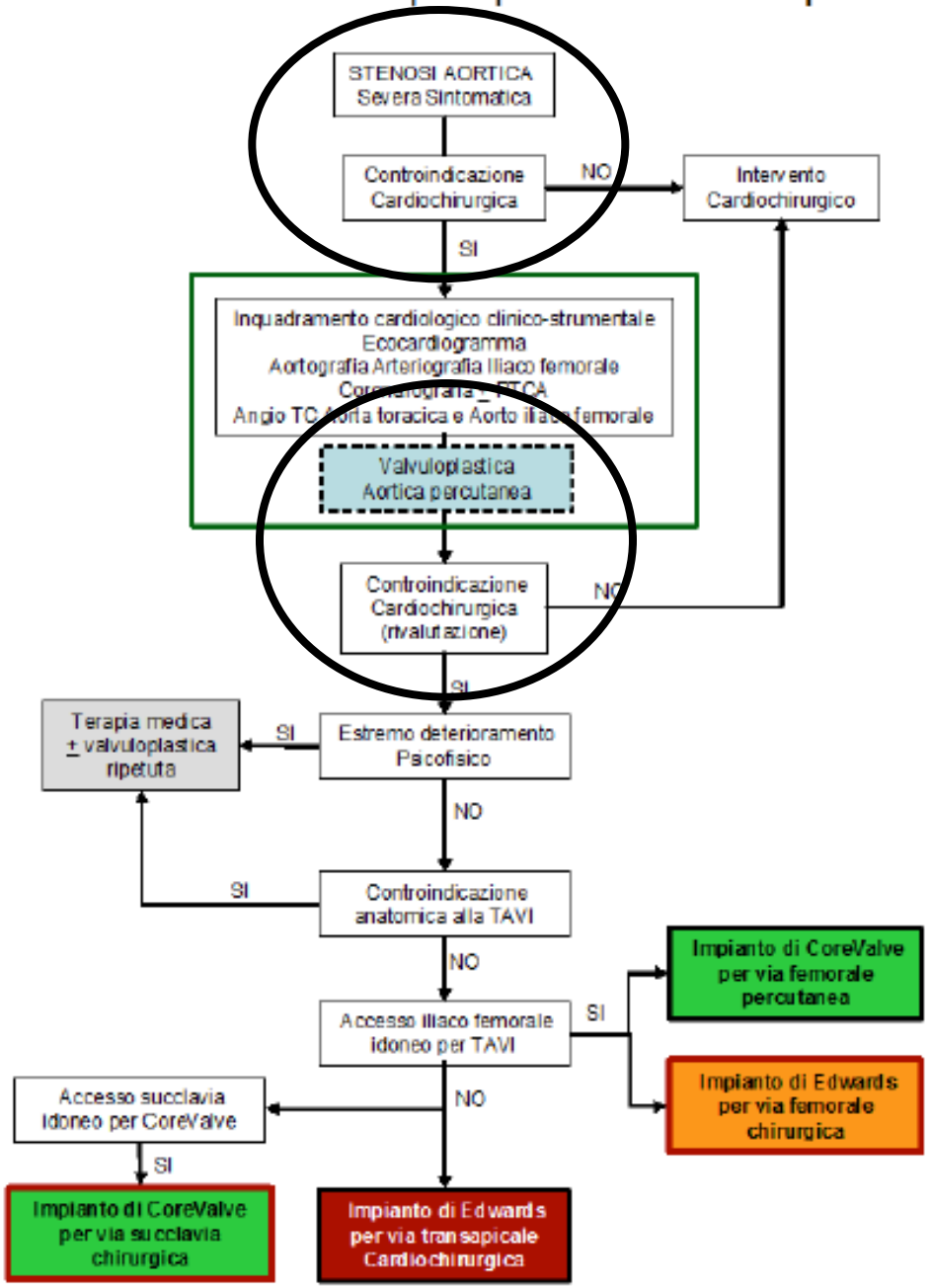
Rimini VAP

Complicanze Procedurali:

456 VAP Consecutive in 354 pz (mediana età 85, range 43-100)

	N	%
Morte (3 Tamponamenti)	4	0.8
NSTEMI	2	0.4
Ictus	1	0.2
Insufficienza Aortica Severa	1	0.2
Compl Vasc (Trasf e/o Chir Vasc)	6	1.3
Tamponamenti	6	1.3

Percorso e snodi decisionali per i pazienti selezionati per TAVI



How many patients with severe symptomatic aortic stenosis excluded for cardiac surgery are eligible for transcatheter heart valve implantation?

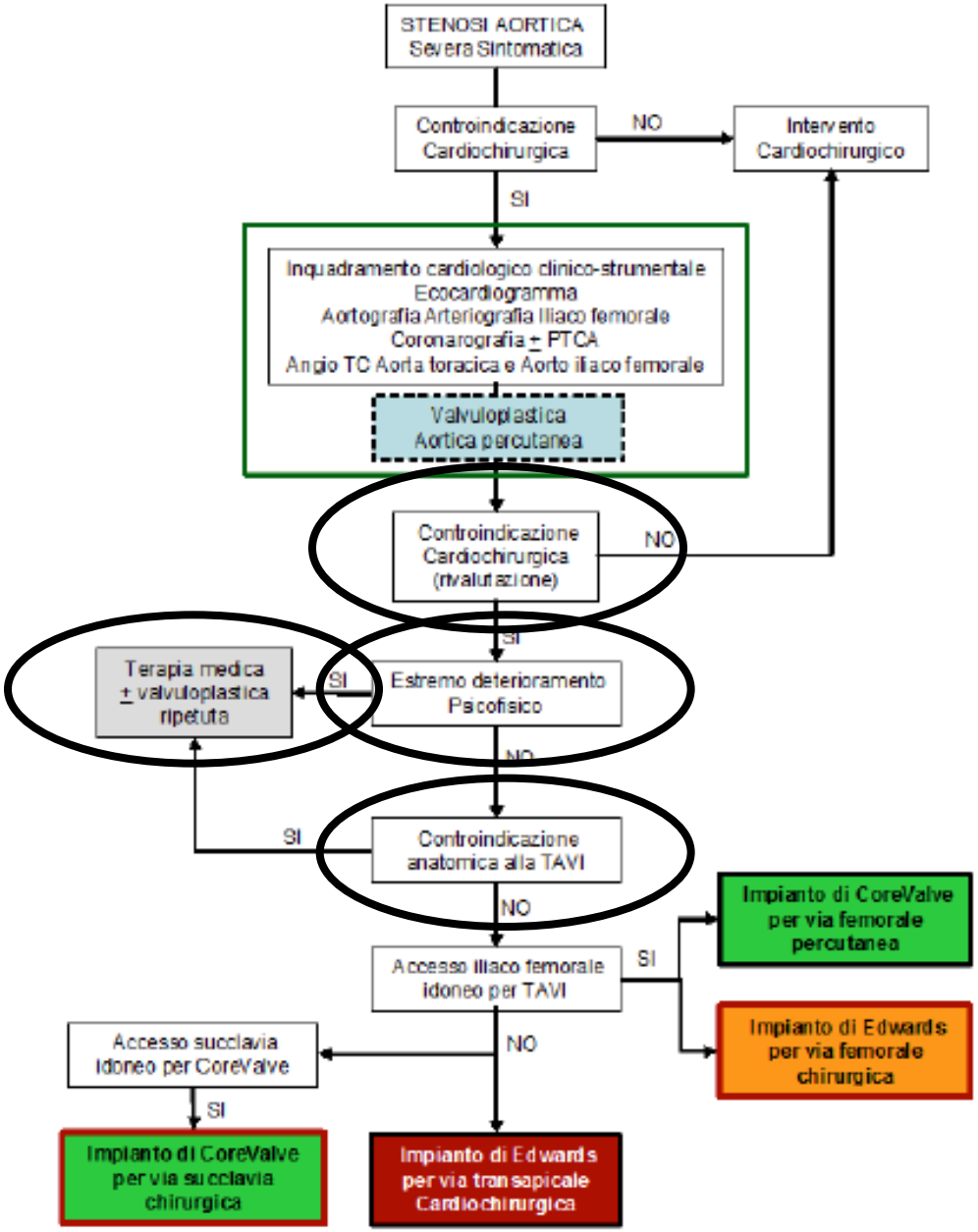
Francesco Saia[a], Cinzia Marrozzini[a], Gianni Dall'Ara[a], Vincenzo Russo[b], Sofia Martìn-Suàrez[c], Carlo Savini[c], Paolo Ortolani[a], Tullio Palmerini[a], Nevio Taglieri[a], Barbara Bordoni[a], Emanuele Pilato[c], Roberto Di Bartolomeo[c], Angelo Branzi[a] and Antonio Marzocchi[a]

"PABV was performed either as palliative procedure or as a bridge to TAVI in all our patients. This choice allow us to improve the clinical condition of clinically unstable patients, to increase the number of patients finally eligible for TAVI through the demonstration of LV function recovery and/or reduction of mitral valve regurgitation, and to reconsider surgery insome patients who were primarily considered as noncandidates for surgery".

"In addition, through the analysis of patient response to PABV, we tried to predict more precisely the clinical benefit in the case of a subsequent TAVI procedure".

Saia et al., J Cardiovasc Med 2010

Percorso e snodi decisionali per i pazienti selezionati per TAVI



ORIGINAL CONTRIBUTION

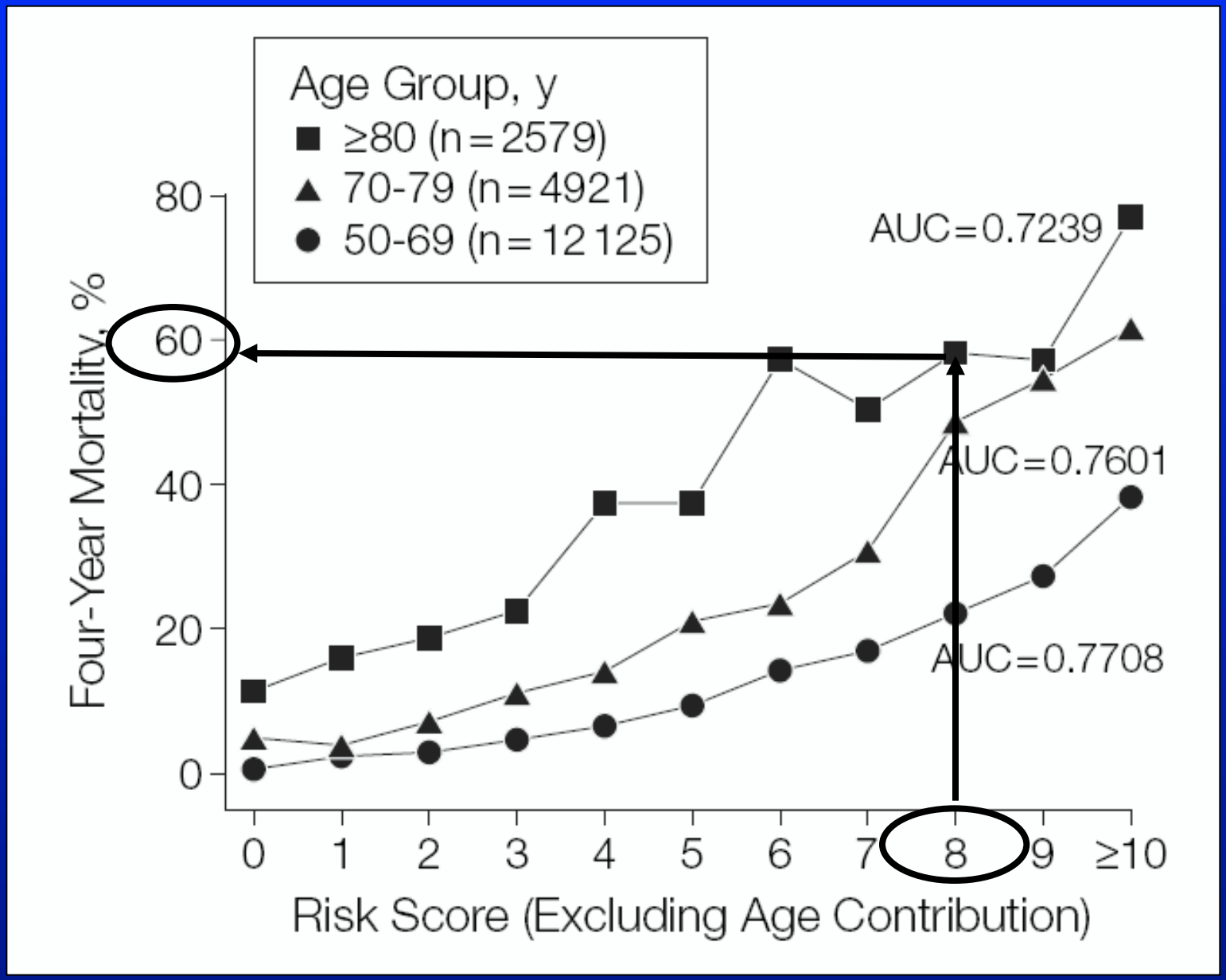
Development and Validation of a Prognostic Index for 4-Year Mortality in Older Adults

Lee et al, JAMA 2006; 295: 801-808

Totale = 8

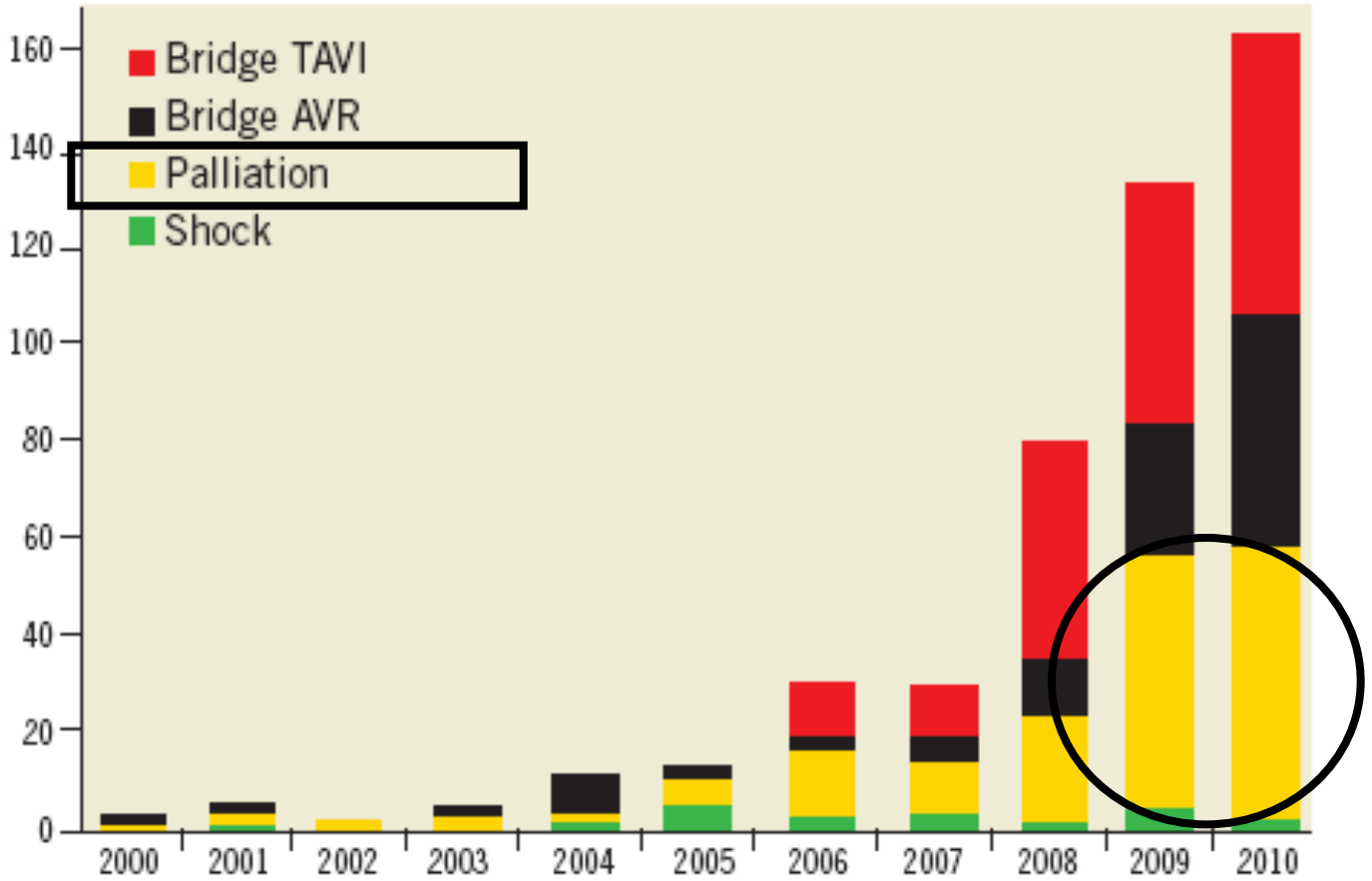
Risk Factor	Adjusted OR (95% CI)*	Points
Demographics		
Age, y		
60-64	1.9 (1.4-2.5)	1
65-69	2.8 (2.1-3.7)	2
70-74	3.7 (2.8-4.9)	3
75-79	5.4 (4.1-7.1)	4
80-84	8.3 (6.3-11.0)	5
≥85	16.2 (12.2-21.6)	7
Male sex	2.0 (1.8-2.3)	2
Comorbidities and behaviors		
Diabetes mellitus	1.8 (1.5-2.1)	1
Cancer	2.1 (1.7-2.4)	2
Lung disease	2.3 (1.8-2.9)	2
Heart failure	2.3 (1.8-3.1)	2
BMI<25	1.7 (1.4-1.9)	1
Current smoker	2.1 (1.7-2.5)	2
Functional measures		
Bathing	2.0 (1.6-2.4)	2
Managing finances	1.9 (1.6-2.3)	2
Walking several blocks	2.1 (1.8-2.4)	2
Pushing/pulling heavy objects	1.5 (1.3-1.8)	1

40% Possibilità di Sopravvivere a 4 anni



Emerging indications, in-hospital and long-term outcome of balloon aortic valvuloplasty in the transcatheter aortic valve implantation era

Francesco Saia[1]*, MD, PhD; Cinzia Marrozzini[1], MD; Cristina Ciuca[1], MD; Paolo Guastaroba[2], MSc; Nevio Taglieri[1], MD; Tullio Palmerini[1], MD; Barbara Bordoni[1], MD; Carolina Moretti[1], MD; Gianni Dall'Ara[1], MD; Angelo Branzi[1], MD; Antonio Marzocchi[1], MD



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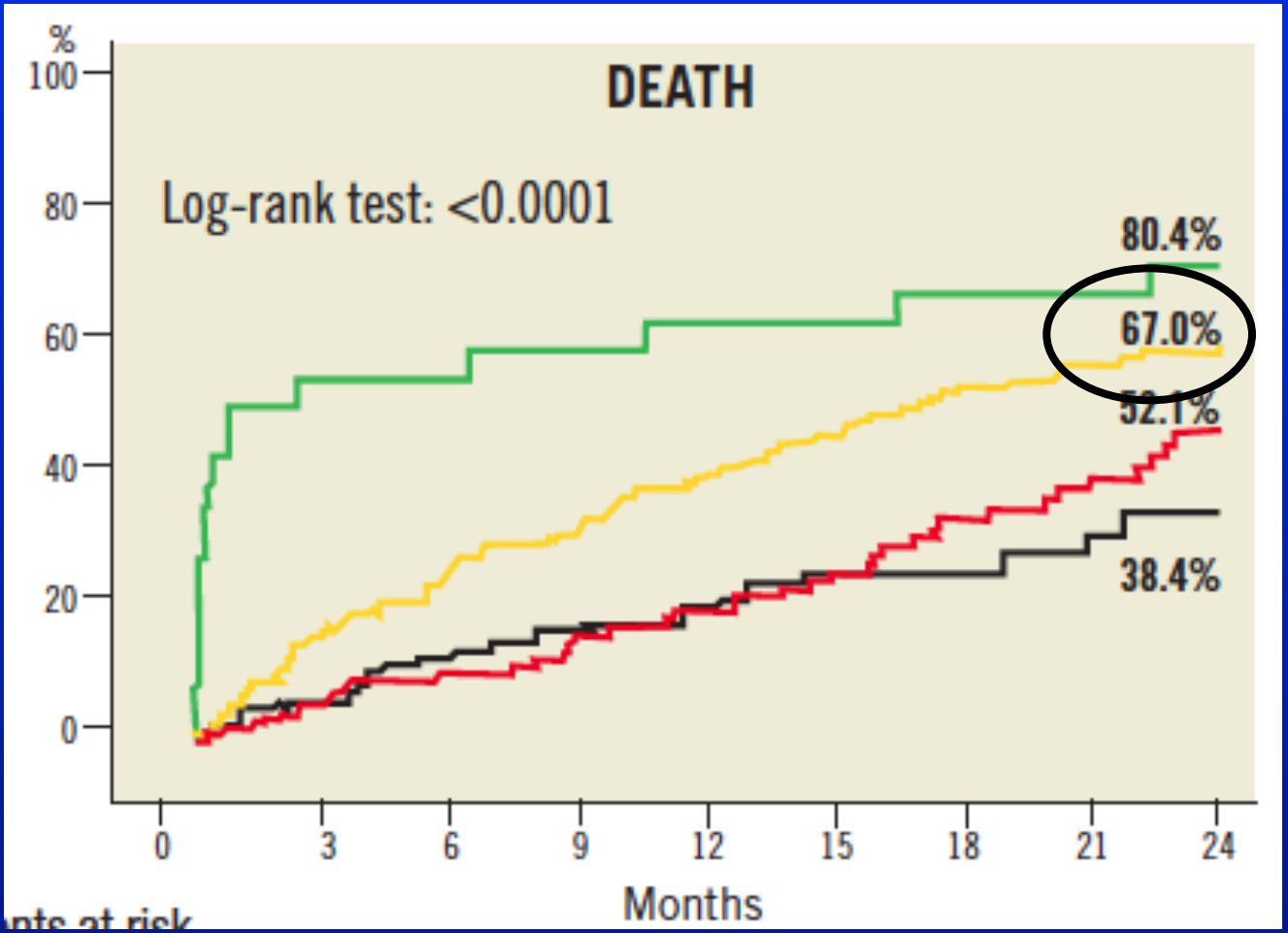

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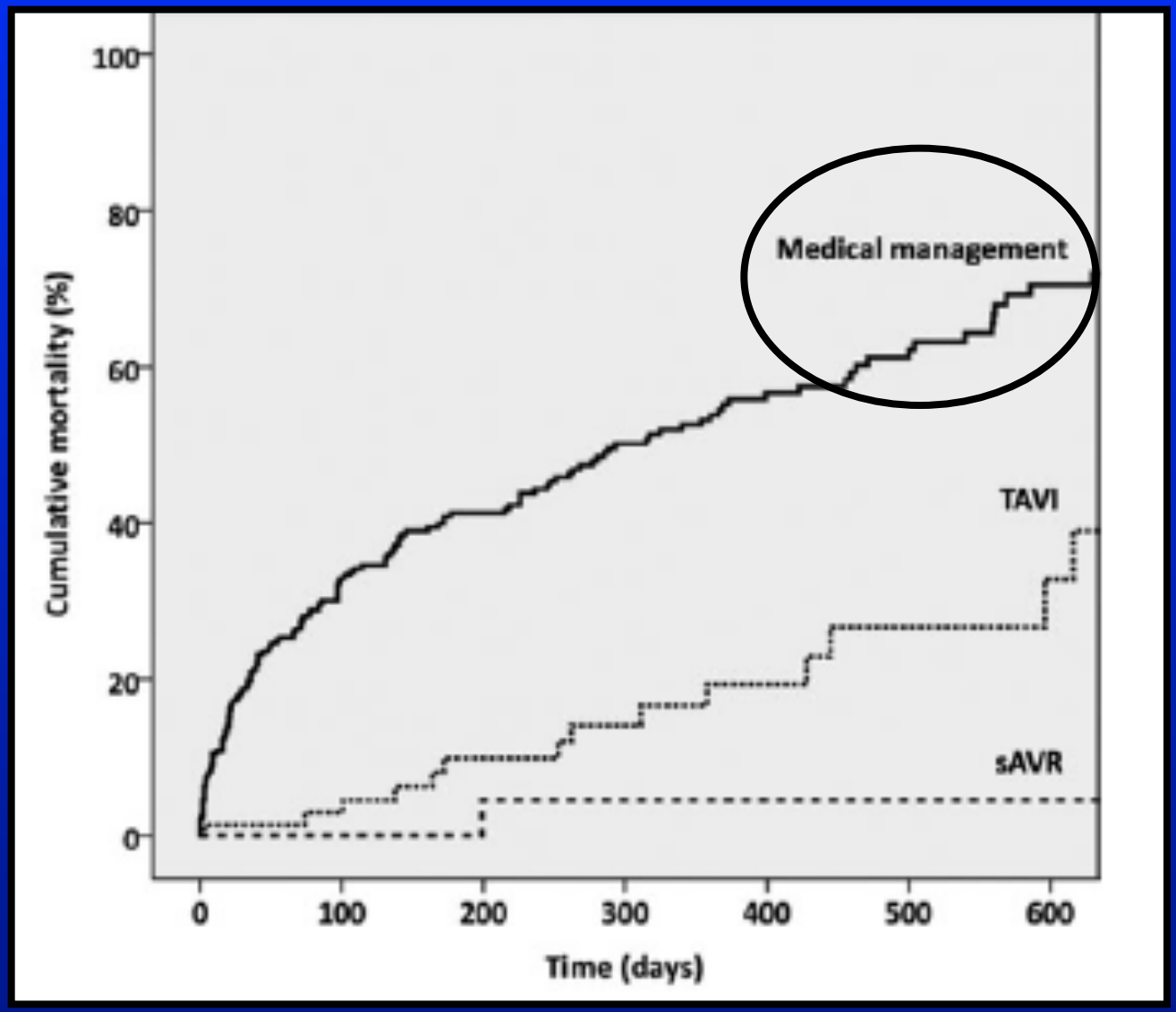
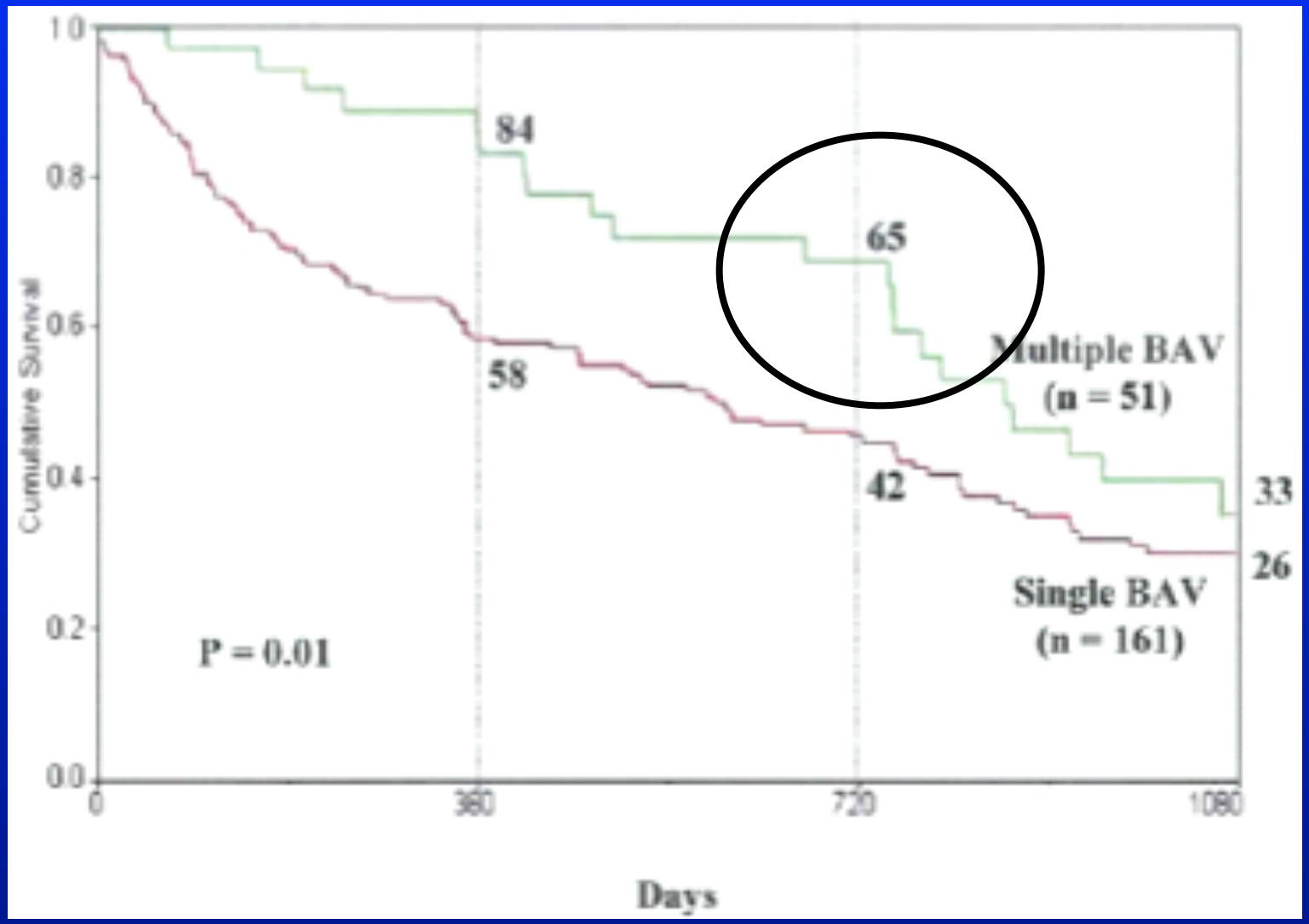


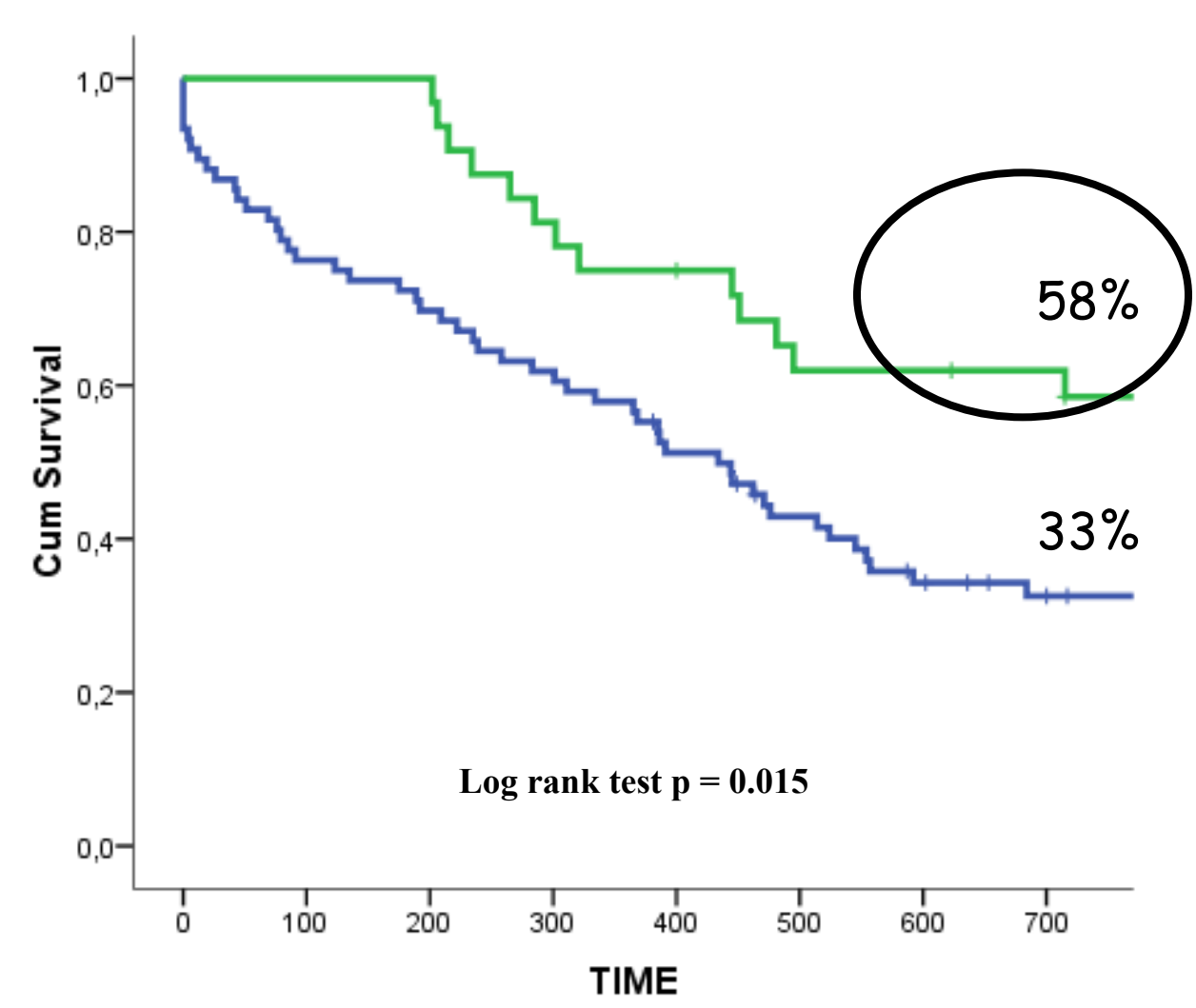
Ripetizione della Valvuloplastica

Mount Sinai Hospital NY

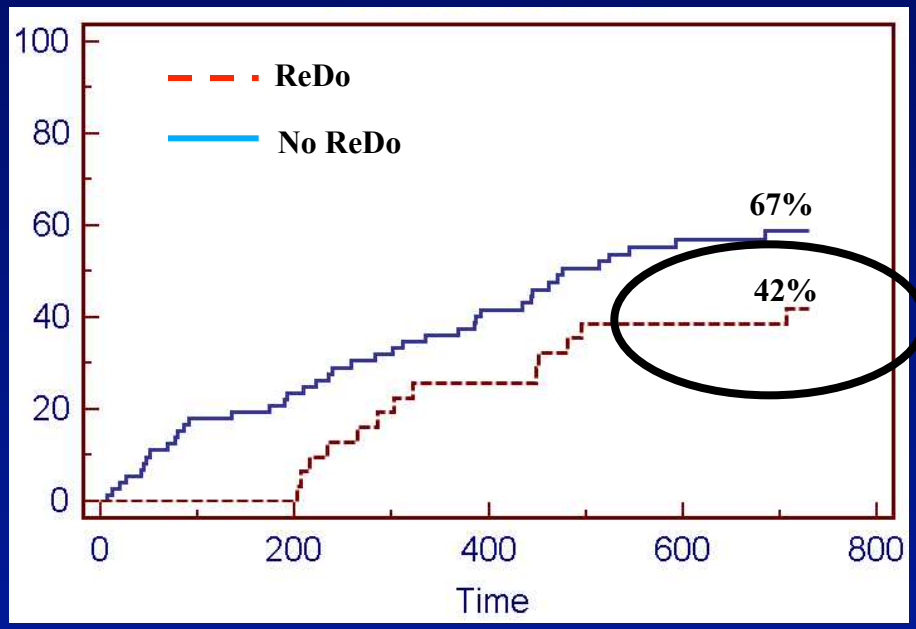


Agarwal et al, Am J Cardiol 2005; 96: 43-47

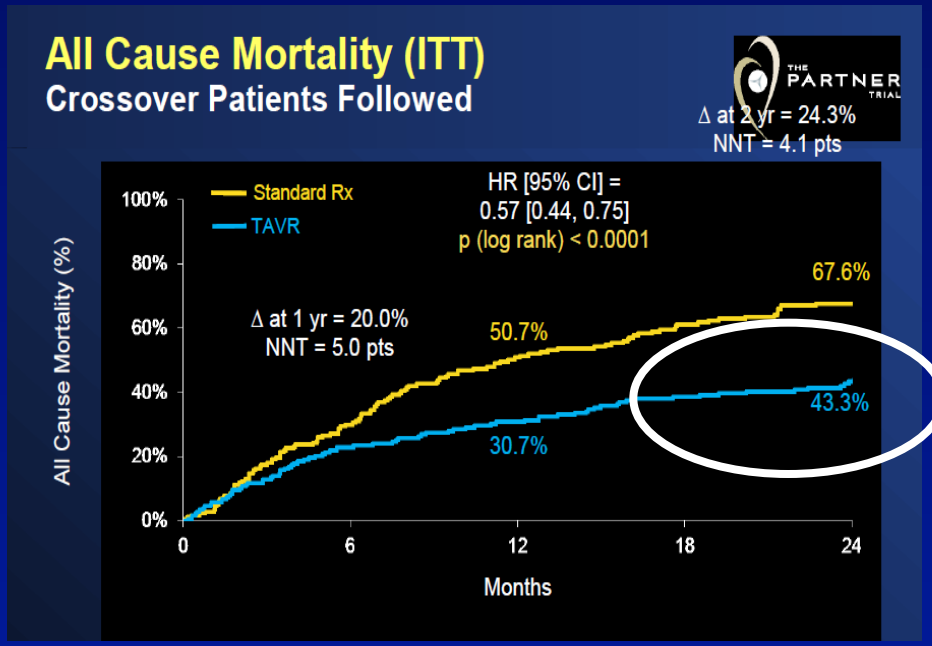
Rimini: BAV pts over 85 years ReDo (33 pts) vs no ReDo (75 pts) at 2 ys



ReDo vs no ReDo
2 ys mortality

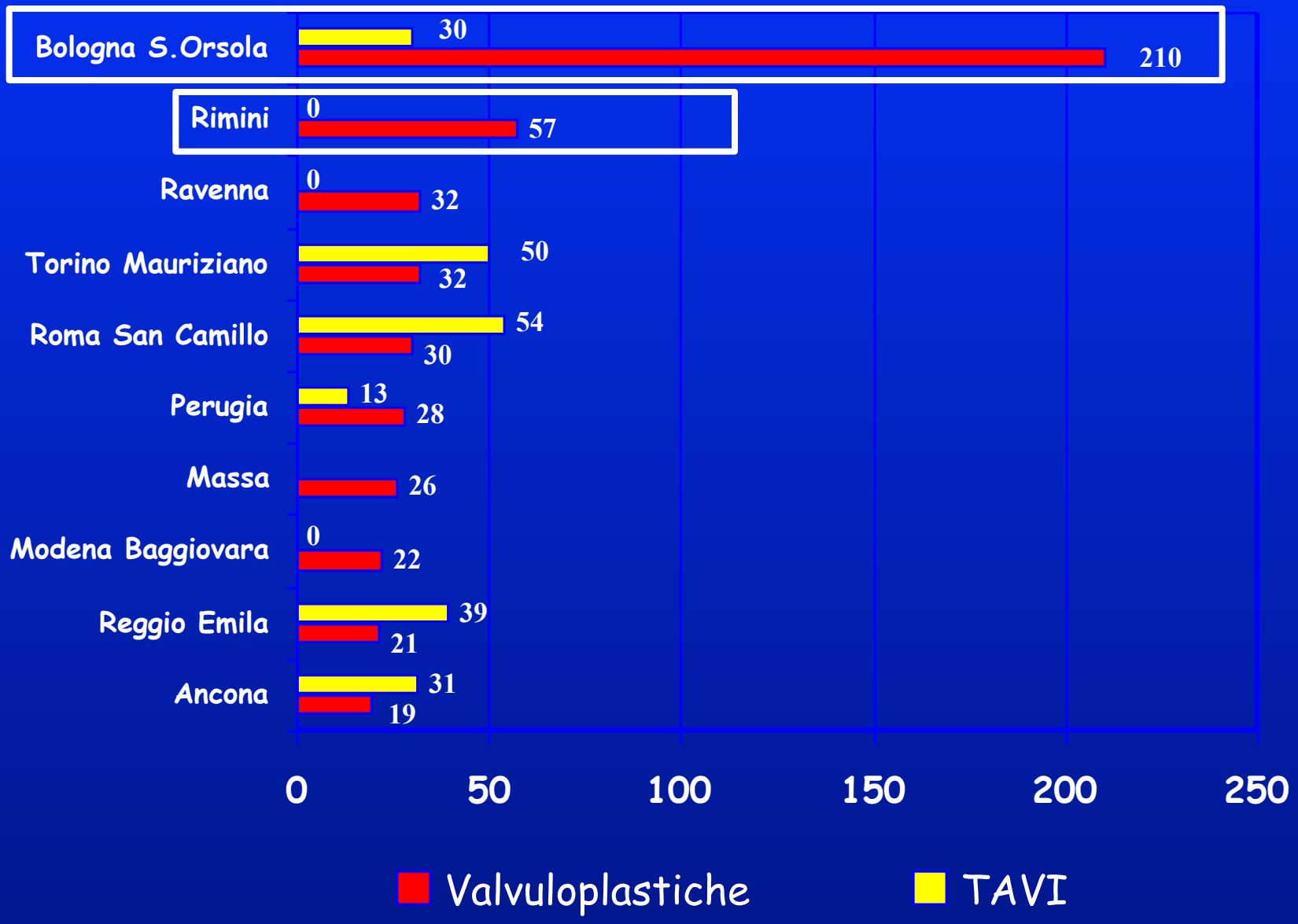


PARTNER study
2 ys mortality

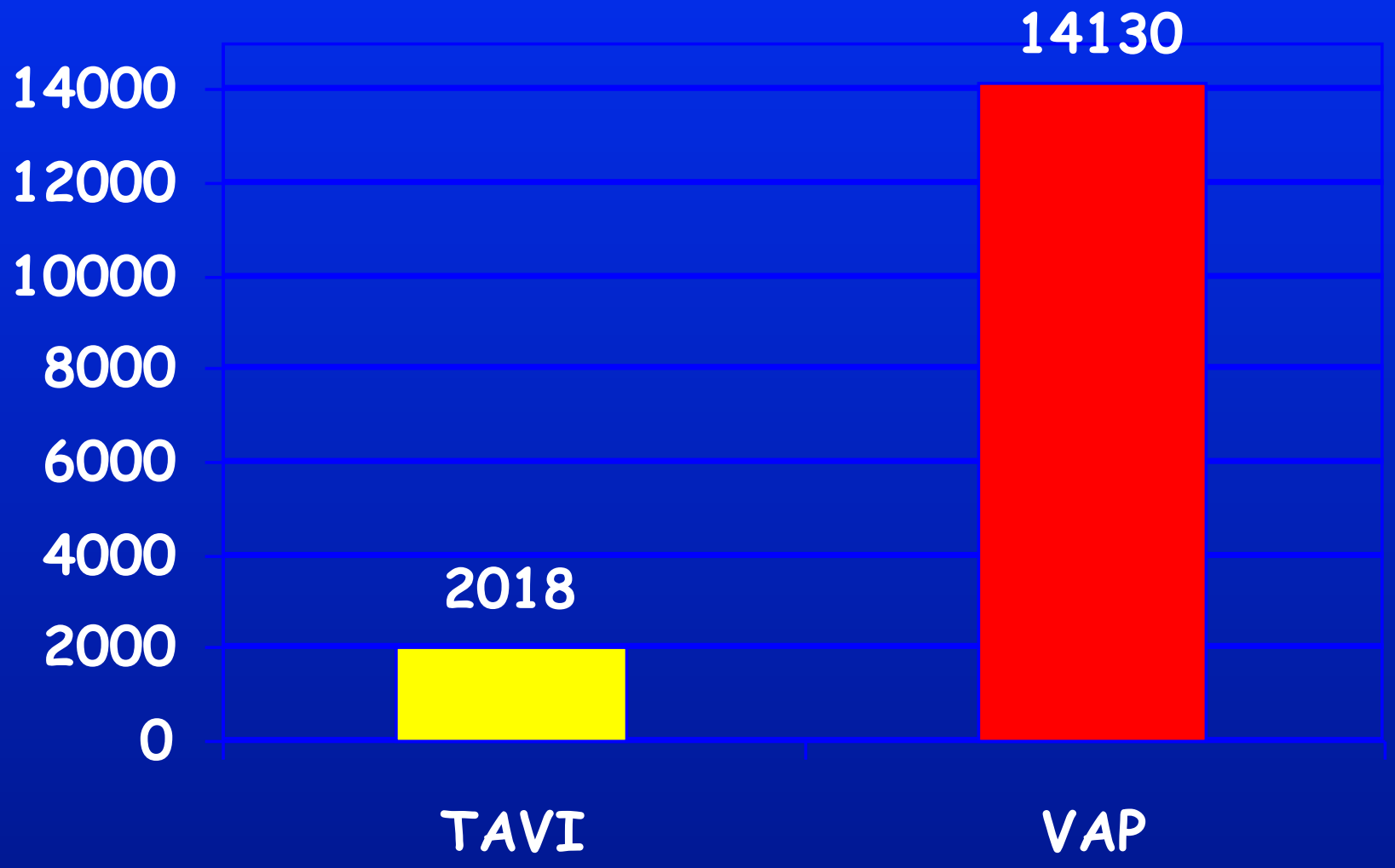


C.L.: sopravvissuta 5 anni dalla 1°Valvuloplastica (3 ReDo)

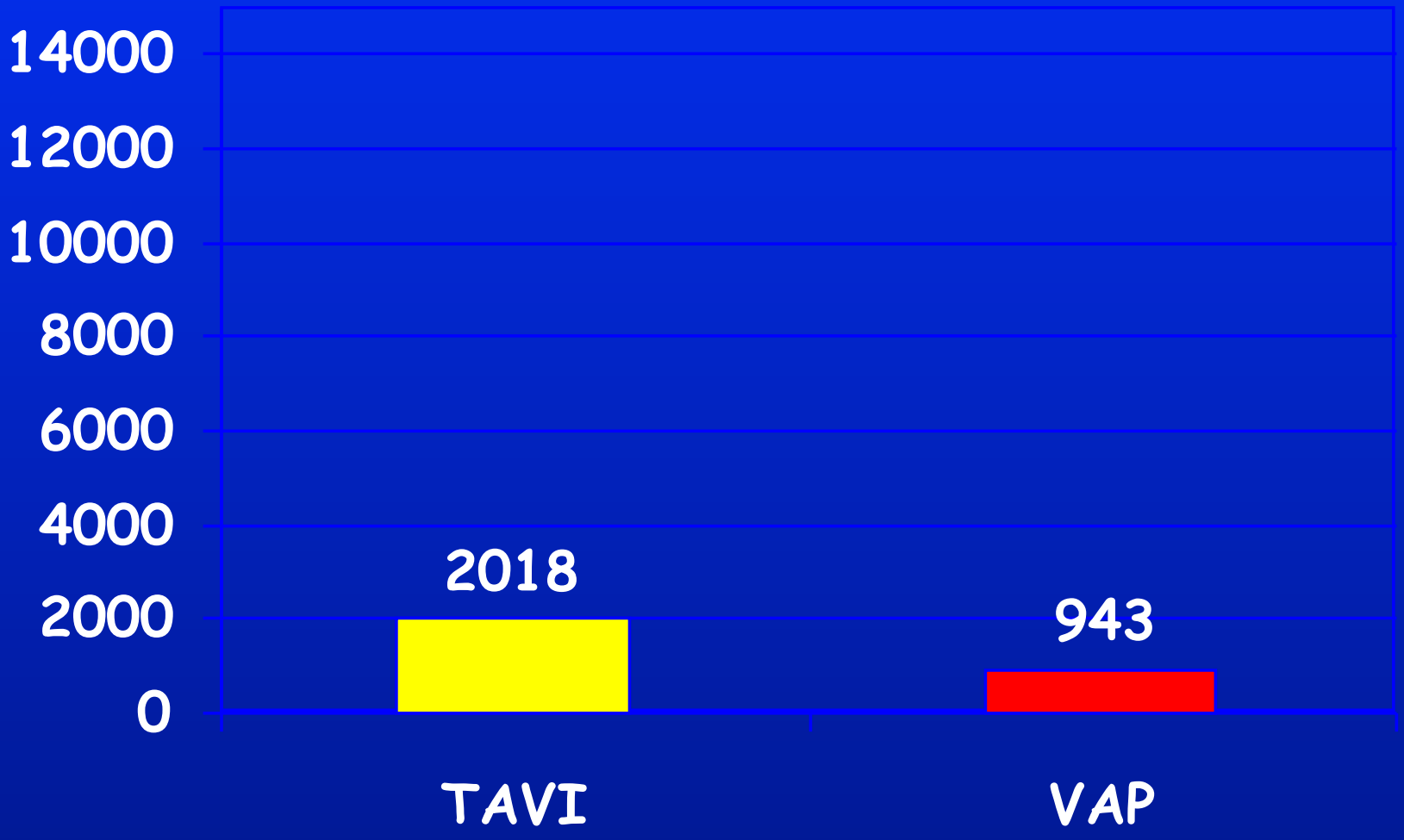
Valvuloplastiche e TAVI in Italia 2012



TAVI e Valvuloplastiche in Italia 2012
…..se modello Bologna (Rimini)



TAVI e Valvuloplastiche in Italia 2012
……..la realtà



Rimini: Corsi Valvuloplastica