Séance 08:30 - 09:30

Dysfonction VG et chirurgie : une prise en charge particulière ?

Modérateurs : Guy Durand de Gevigney, Lyon - Pierre Gibelin, Nice

- **Chirurgie non cardiaque : le point de vue de l'anesthésiste**

Jean-Pol Depoix, Paris

- **Dysfonction VG et fuite valvulaire : jusqu'où proposer une intervention ?**

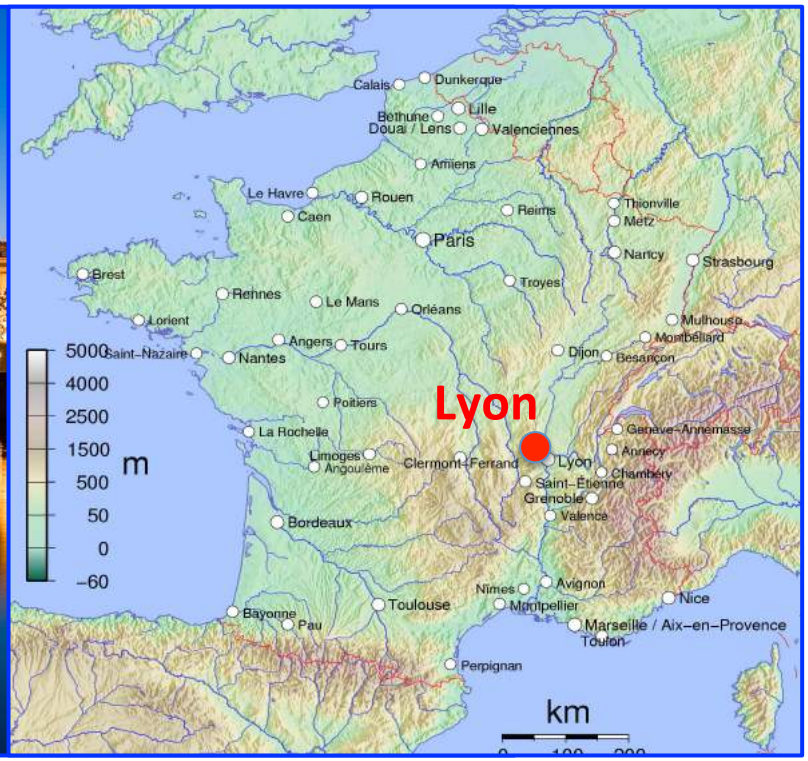
Christophe Tribouilloy, Amiens

- **Dysfonction VG et fuite valvulaire : quelle thérapeutique ?**

Jean-François Obadia, Lyon

Hospices Civils de Lyon

MR with poor LV: Which treatment ?

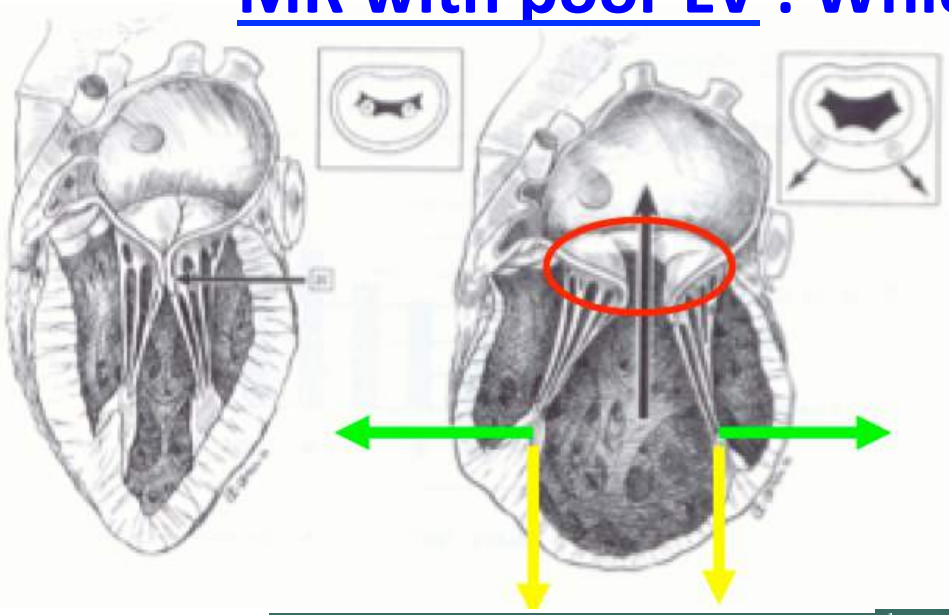


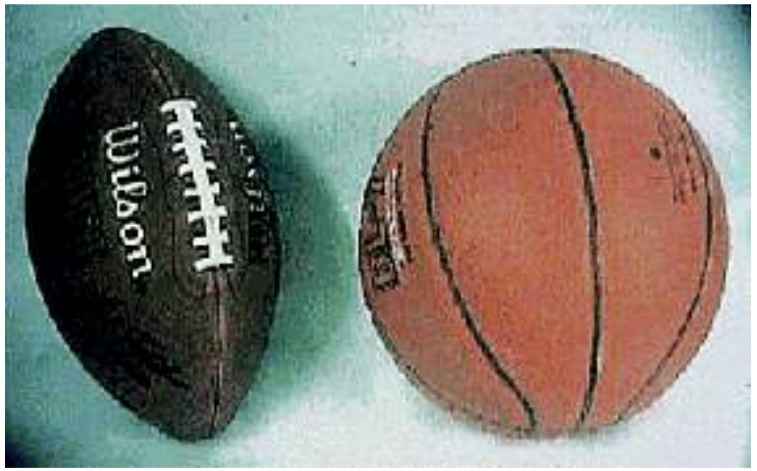
Cardiothoracic and Vascular Surgery Department

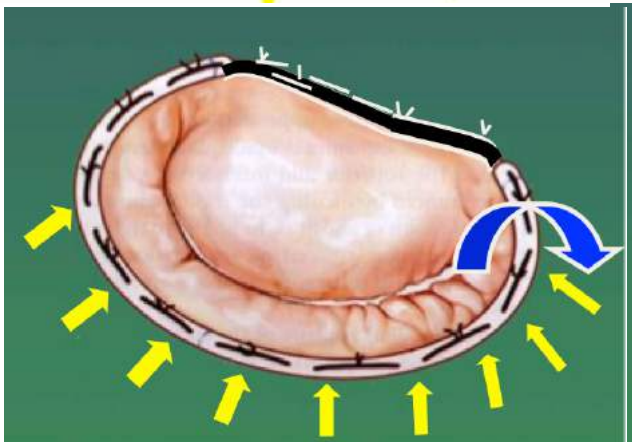
Hôpital Louis Pradel

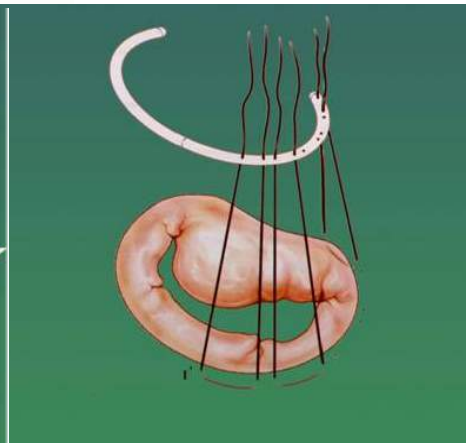
LYON - France

MR with poor LV : Which treatment ?





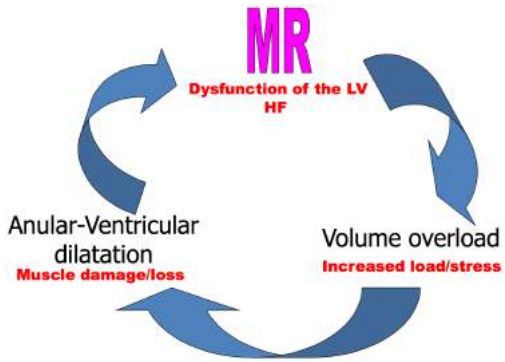




MR with poor LV : Which treatment ?

Braunwald hypothesis :

MV regurgitation has a "pop-off effect" for the failing ventricle; surgical correction results in prohibitive mortality



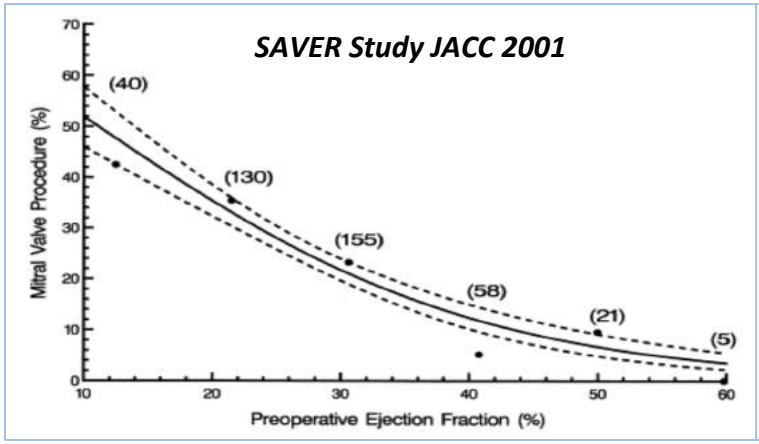
Bolling hypothesis :

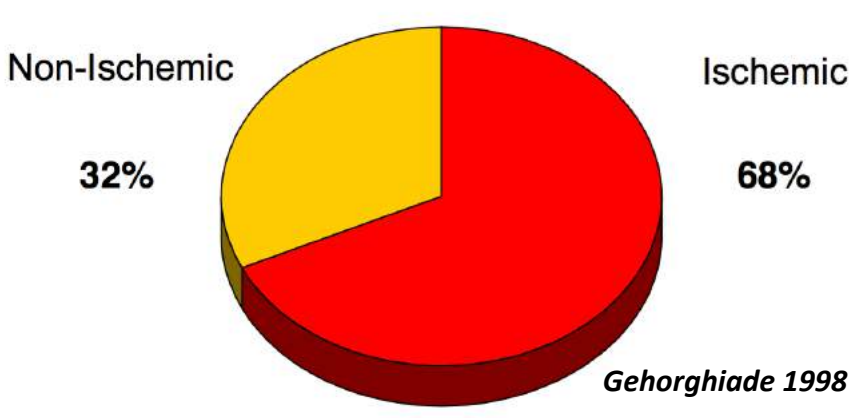
"an annular solution for a ventricular problem" FIND IT AND FIX IT

(undersized ring) :

- **restores valvular competency**
- **alleviates the excessive ventricular workload**
- **improves ventricular function**

MR with poor LV : Which treatment ?



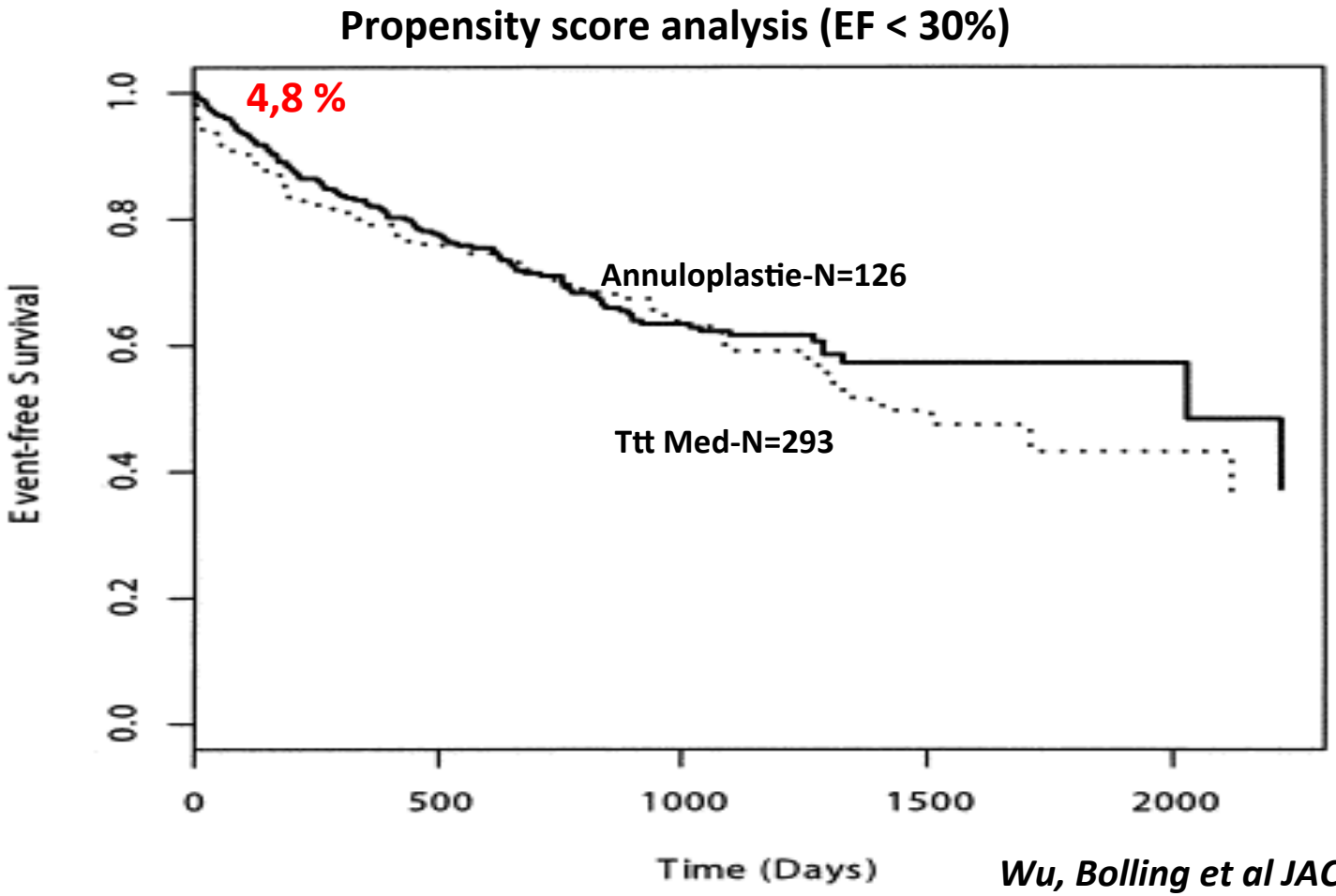


Interventional dilemma : too early vs too late

- Including class III patients might be too early :
medical treatment is still efficient ➔ more precise stratification

- Including class IV patients is often too late :
short term mortality is prohibitive ➔ accurate parameters

MR with poor LV : Which treatment ?

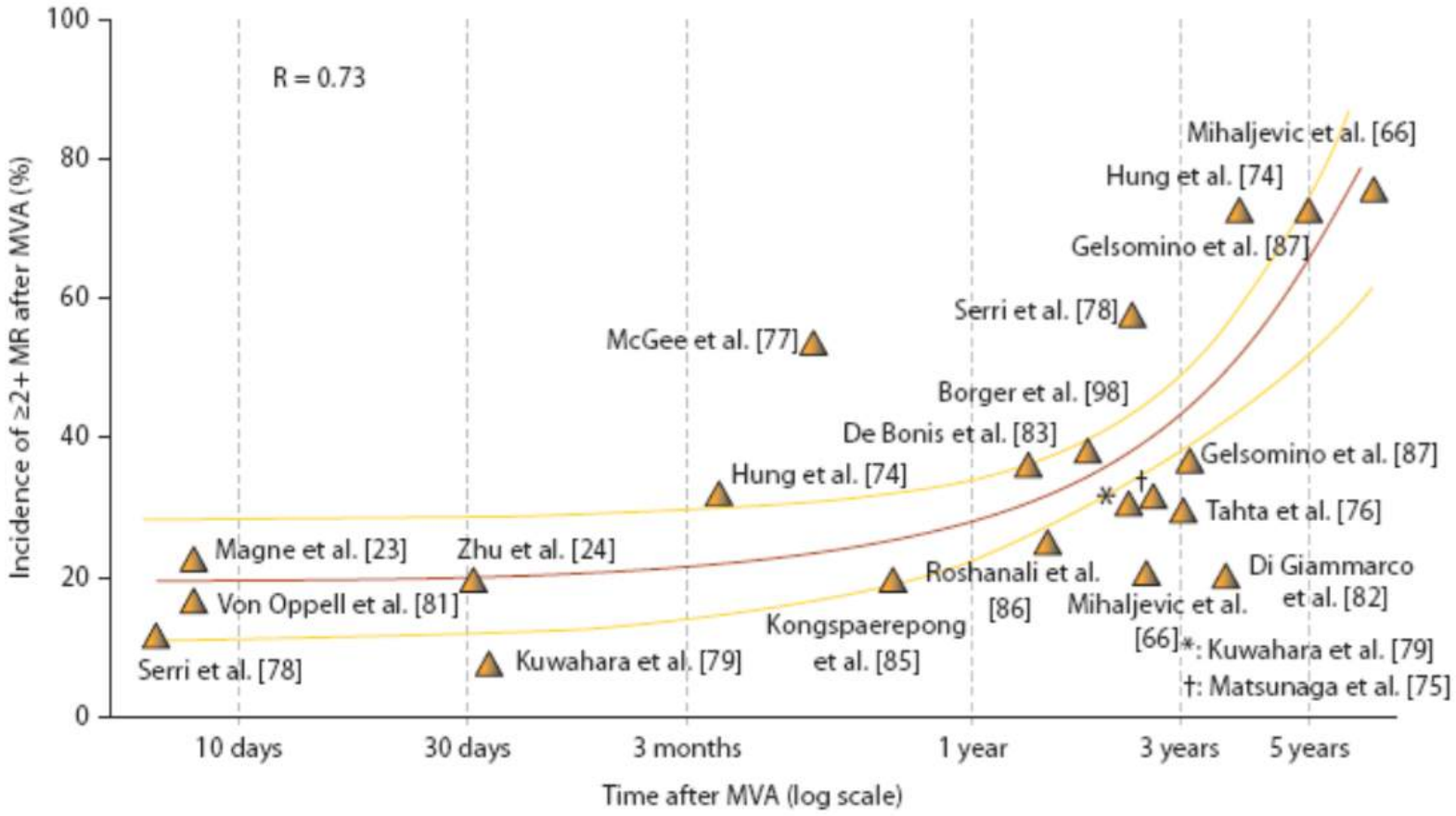


Wu, Bolling et al JACC 2005

MR with poor LV : Acute mortality is low

Study	Year	Number of patients	+ CABG	Acute Mortality
Wu	2005	126	yes	4.8%
ACORN	2006	193	no	1.6%
Braun	2008	100	yes	8.0%
Fattouch	2009	48	yes	4.1%
Ciarka	2010	122	yes	8.2%
De Bonis	2012	54	no	5.6%

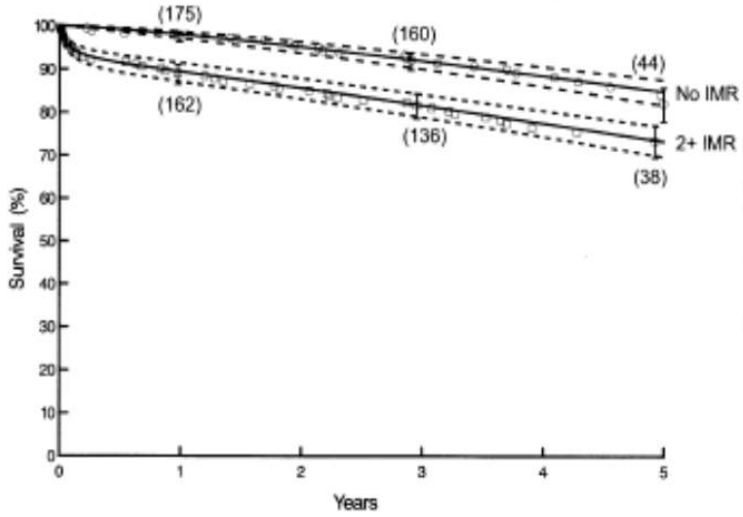
Recurrent MR ≥ grade 2 after Downsized Annuloplasty

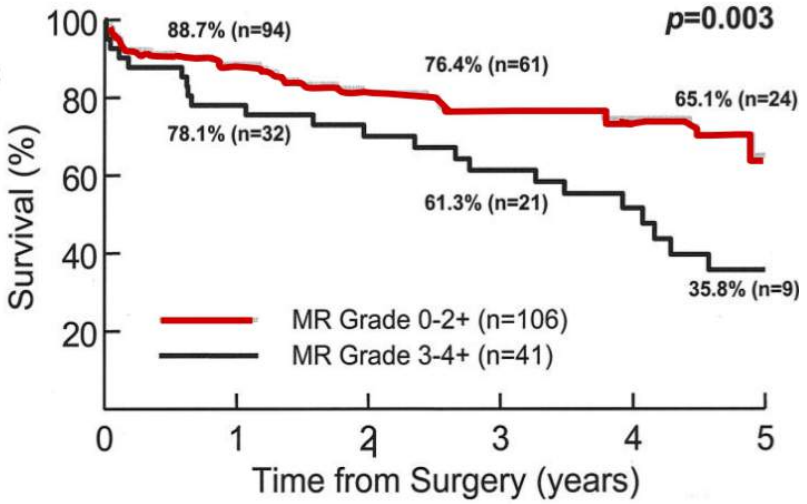


Magne et al. Cardiology 2009;112:244

UNDERSIZED ANNULOPLASTY

- Up to 30-50% residual or recurrent MR at 3y
- Worse prognosis (↓ survival)



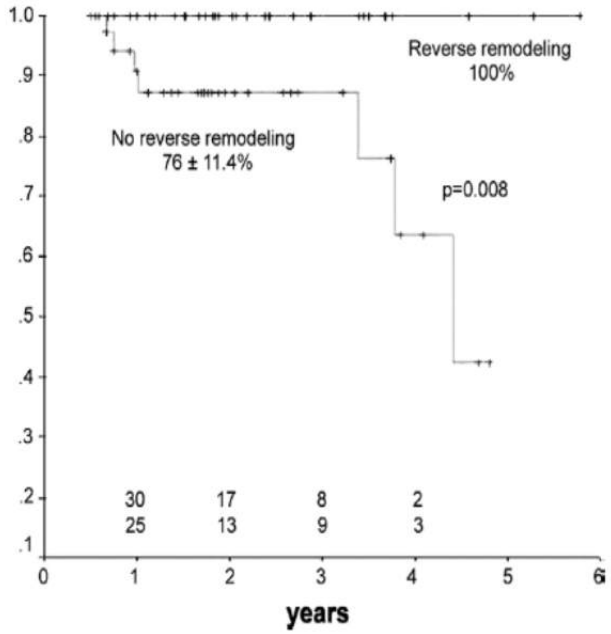


McGee EC et al. JTCVS 2004;128:916-24
Mihaljevic et al. J Am Coll Cardiol 2007;49:2191-201
Crabtree TD et al. Ann Thorac 2008;85:1537-43 Surg

Recurrence of Mitral Regurgitation Parallels the Absence of Left Ventricular Reverse Remodeling After Mitral Repair in Advanced Dilated Cardiomyopathy

Michele De Bonis, MD, Elisabetta Lapenna, MD, Alessandro Verzini, MD, Giovanni La Canna, MD, Antonio Grimaldi, MD, Lucia Torracca, MD, Francesco Maisano, MD, and Ottavio Alfieri, MD Ann Thorac Surg 2008;85:932–9

Freedom from recurrent MR≥3+



Preoperative left ventricular dimensions predict reverse remodeling following restrictive mitral annuloplasty in ischemic mitral regurgitation☆

Jerry Braun[a], Jeroen J. Bax[b], Michel I.M. Versteegh[a], Pieter G. Voigt[a], Eduard R. Holman[b], Robert J.M. Klautz[a], Eric Boersma[c], Robert A.E. Dion[a,*]

[a]Department of Cardiothoracic Surgery, Leiden University Medical Center, Albinusdreef 1, 2333 AL Leiden, The Netherlands
[b]Department of Cardiology, Leiden University Medical Center, Leiden, The Netherlands
[c]Department of Epidemiology and Statistics, Erasmus University, Rotterdam, The Netherlands

Received 21 September 2004; received in revised form 16 December 2004; accepted 23 December 2004; Available online 2 February 2005

Abstract

Objective: Ischemic mitral regurgitation can be treated with a restrictive mitral annuloplasty, with or without coronary revascularization. In this study, the extent of reverse remodeling of the left ventricle following this strategy is assessed, as well as the factors that influence it. **Methods:** Eighty-seven consecutive patients with ischemic mitral regurgitation and a mean ejection fraction of 32±10% underwent restrictive mitral annuloplasty (downsizing by two ring sizes, median ring size 26), with additional coronary revascularization in 75 patients. All underwent

icting occurrence of reverse remodeling. For end-systolic dimension, 51 mm was the optimal cut-off value to predict reverse remod
ificity and sensitivity 81%, area under curve 0.85); for end-diastolic dimension, the cut-off value was 65 mm (specificity and sensitivity
under curve 0.92). **Conclusions:** Stringent restrictive mitral annuloplasty with or without revascularization provides excellent cl

at 18 months, left ventricular end-systolic dimension decreased from 52±8 to 44±11 mm ($P<0.01$), and end-diastolic dimension from 64±8 to 58±10 mm ($P<0.01$). Multivariate analysis identified preoperative left ventricular end-diastolic dimension as the single best factor in predicting occurrence of reverse remodeling. For end-systolic dimension, 51 mm was the optimal cut-off value to predict reverse remodeling (specificity and sensitivity 81%, area under curve 0.85); for end-diastolic dimension, the cut-off value was 65 mm (specificity and sensitivity 89%, area under curve 0.92). **Conclusions:** Stringent restrictive mitral annuloplasty with or without revascularization provides excellent clinical results with acceptable mortality. At 18 months follow-up, there is no significant residual mitral regurgitation. Reverse remodeling occurs in the majority of patients, but is limited by preoperative left ventricular dimensions. In patients with a left ventricular end-diastolic dimension exceeding 65 mm, additional surgical procedures are necessary to try and obtain reverse remodeling in this subgroup.

Dion et al, Eur J Cardiothorac Surg. 2005 May;27(5):847-53

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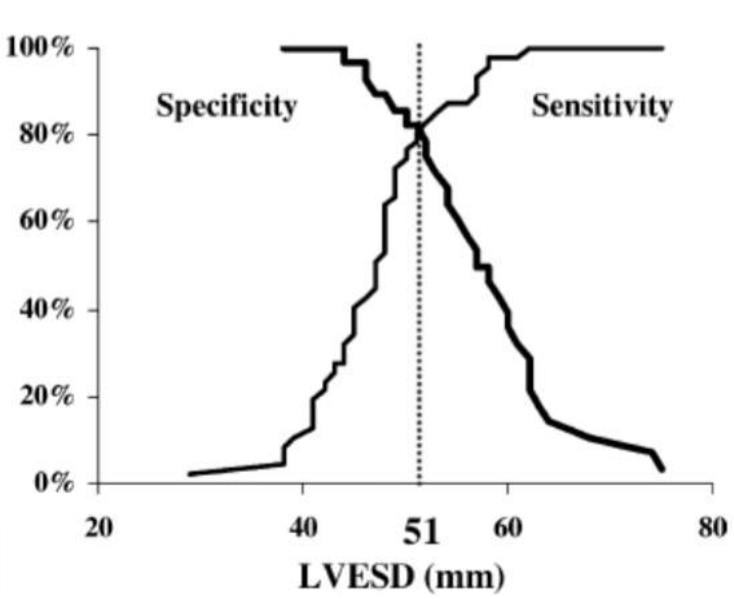

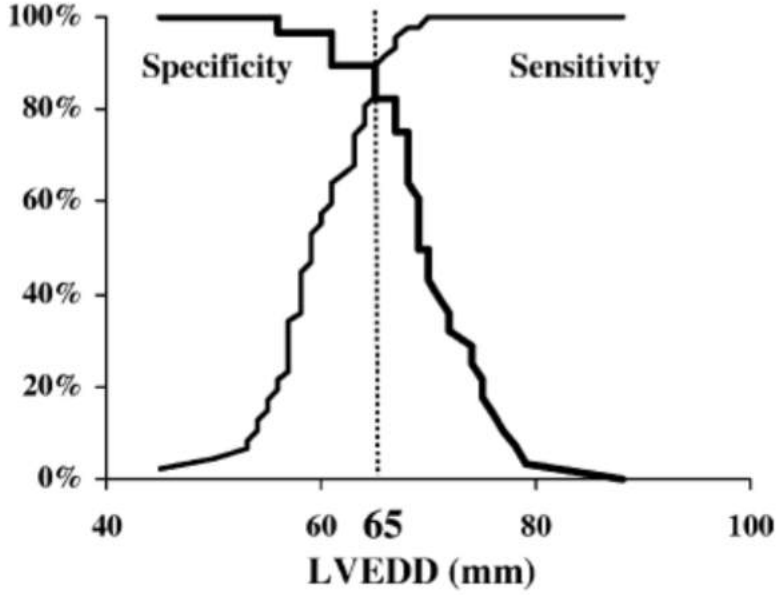

Dion et al, Eur J Cardiothorac Surg. 2005 May;27(5):847-53

Predictors of reverse remodeling

Table 4. Predictors of Reverse Left Ventricular Remodeling

Variable	Odds Ratio	*p* (univariate)	*p* (multivariable)
Age	0.9	0.7	
Duration of CHF	0.6	0.06	0.05
Ischemic etiology	1.5	0.04	0.9
Associated CABG	1.4	0.02	0.9
Successful ablation of AF	3.7	0.05	0.2
EF	0.9	0.3	
SPAP	0.9	0.4	
LVEDD	0.9	0.2	
LVEDVI	1	0.7	
LVESVI	1	0.3	
Tenting area	0.8	0.5	
Coaptation depth	1.8	0.2	
Use of edge-to-edge	2.1	0.08	0.09
Ring number	0.8	0.2	
Ring type	1.2	0.8	

Variable	Reverse Remodeling	No Reverse Remodeling	*p* Value
Number of patients	41	38	
Ischemic DCM (n, %)	29 (70.7)	22 (57.9)	0.2
Previous MI (n, %)	18 (43.9)	11 (28.9)	0.2
Anterior (%)	42.2	54.1	0.5
Inferior (%)	42.3	41.6	0.8
Lateral (%)	15.3	4.1	0.3
CHF duration (y)	1.7 ± 0.5	3.1 ± 1.5	0.03
NYHA	2.8 ± 0.7	3 ± 0.7	0.1
EF	0.28 ± 0.053	0.29 ± 0.057	0.9
LVEDD (mm)	68 ± 7.0	70 ± 6.6	0.1
LVEDVI (mL/m^2)	116 ± 28.5	110 ± 32.2	0.8
LVESVI (mL/m^2)	83 ± 24.1	78 ± 26.3	0.6
SPAP (mm Hg)	47 ± 12.5	46 ± 11.8	0.5
Sphericity index	0.77 ± 0.08	0.67 ± 0.09	0.5
Tenting area (cm^2)	2.6 ± 0.82	2.8 ± 0.94	0.4
Coaptation depth (cm)	1 ± 0.24	1.1 ± 0.3	0.8
Ring number	27.3 ± 1.8	27.1 ± 2.0	0.41
Edge-to-edge (n, %)	24 (58.5)	15 (39.4)	0.2
Associate CABG (n, %)	27 (65.9)	22 (57.9)	0.4
Number of grafts	1.5 ± 1.0	1.9 ± 0.7	0.1
AF ablation (n, %)	10 (24.3)	3 (7.8)	0.09
CRT (n, %)	5 (12.1)	7 (18.4)	0.6

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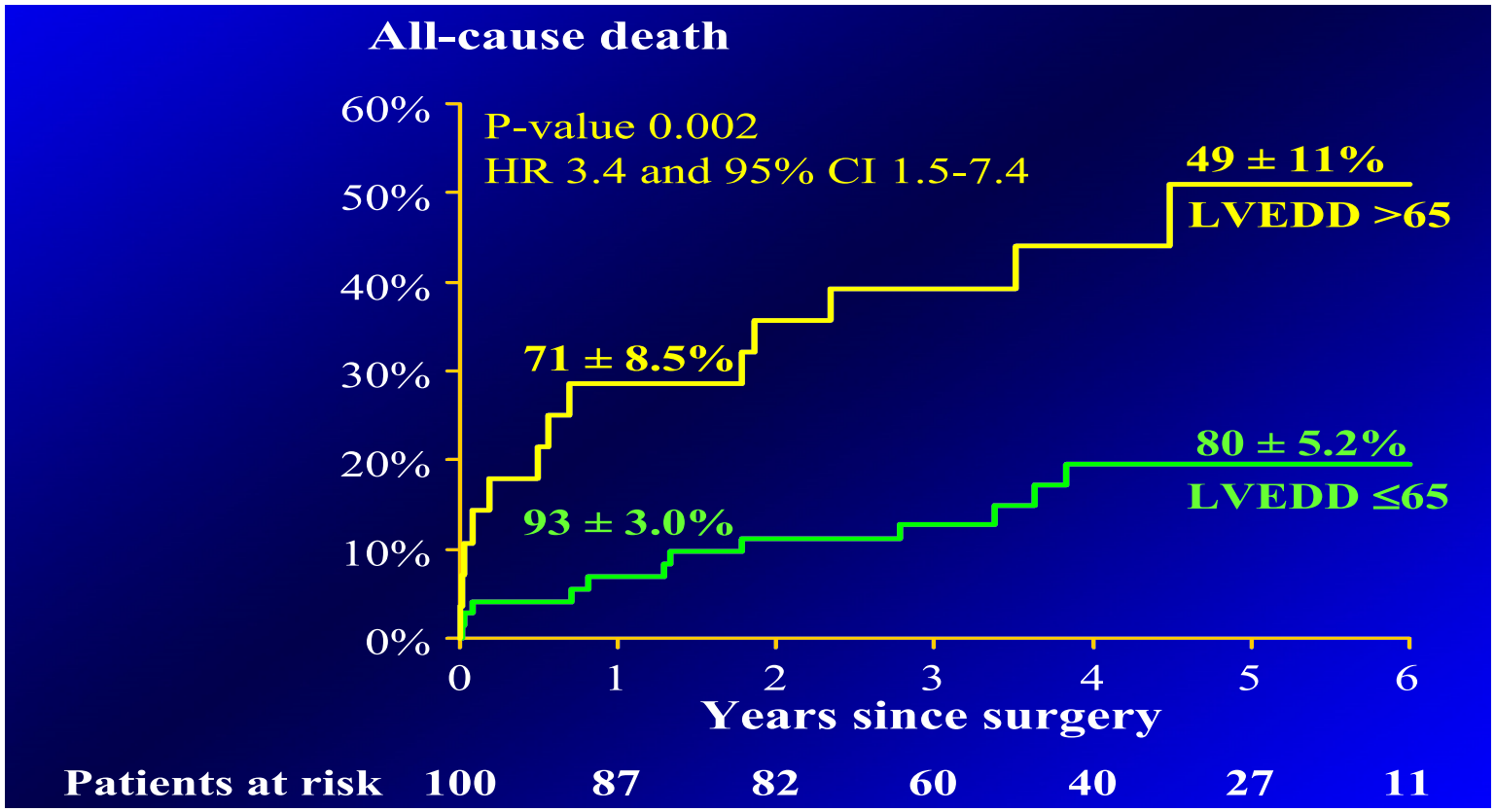


Dion et al, Eur J Cardiothorac Surg. 2005 May;27(5):847-53

Mitral Valve Surgery for Chronic Ischemic Mitral Regurgitation

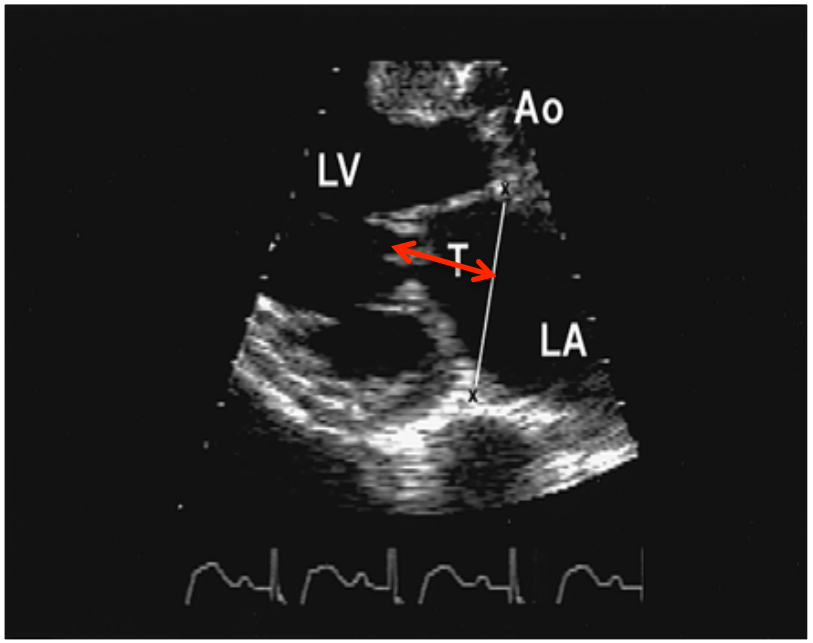
Antonio M. Calafiore, MD, Michele Di Mauro, MD, Sabina Gallina, MD, Gabriele Di Giammarco, MD, Angela L. Iacò, MD, Giovanni Teodori, MD, and Isabella Tavarozzi, MD

Division of Cardiac Surgery, University Hospital, Torino, and Department of Cardiology and Cardiac Surgery, "G D'Annunzio" University, Chieti, Italy

Background. Early and midterm clinical and echocardiographic results after mitral valve (MV) surgery for chronic ischemic mitral regurgitation were investigated to evaluate the validity of the criteria for repair or replacement applied by us.

Methods. From 1988 to 2002, 102 patients with ischemic mitral regurgitation underwent MV surgery (82 repairs and 20 replacements). End-systolic distance between the coaptation point of mitral leaflets and the plane of mitral annulus was the key factor that allowed either repair (≤10 mm) or replacement (>10 mm). Patients who had MV replacement showed higher New York Heart Association class (3.2 ± 0.5 versus 3.4 ± 0.5; $p = 0.016$), lower preoperative ejection fraction (0.33 ± 0.9 versus 0.38 ± 0.12; $p = 0.034$), and higher end-diastolic volume (161 ± 69 mL versus 109 ± 35 mL; $p < 0.001$) compared with repair. Mitral regurgitation was 3.2 ± 0.7 in both groups.

Results. Thirty-day mortality was 3.9% (2.4% MV repair versus 10.0% MV replacement; not significant). During the follow-up 26 patients died. Of the 72 survivors, 55



(Ann Thorac Surg 2004;77:1989–97)

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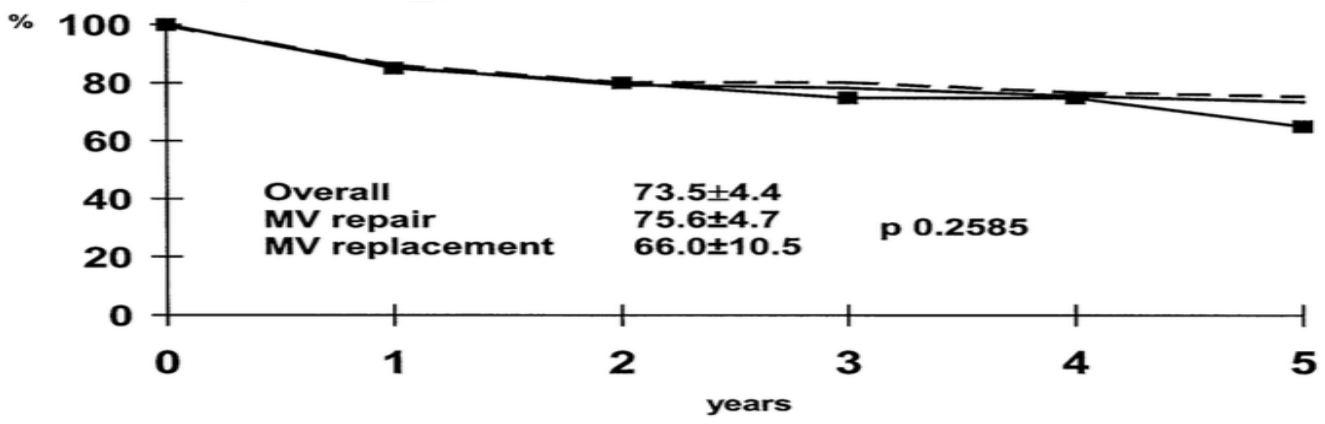
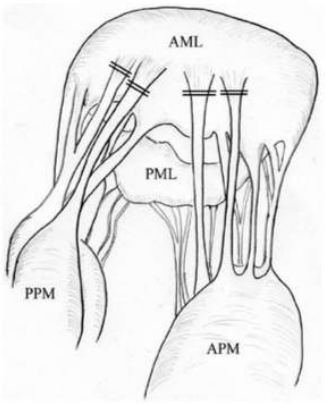
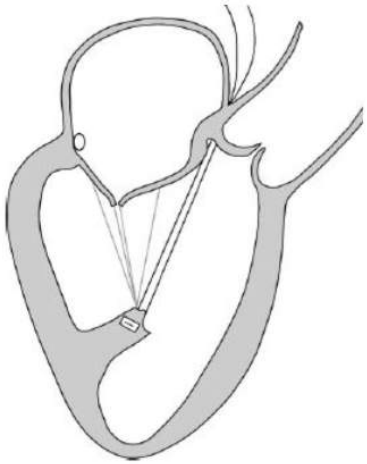


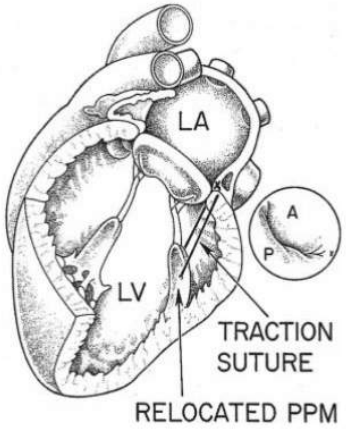
Overall	102	82	56	46	21	20
MV repair	82	66	43	36	13	13
MV replacement	20	16	13	10	8	7

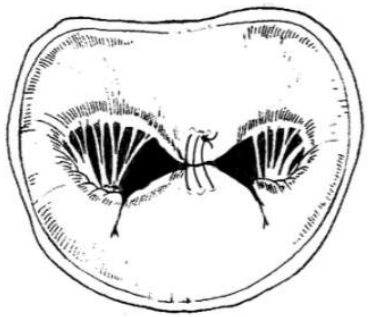
Fig 3. Survival according to mitral valve (MV) repair or replacement. (Dashed line = mitral valve repair; straight line = overall; straight line with black squares = mitral valve replacement.)

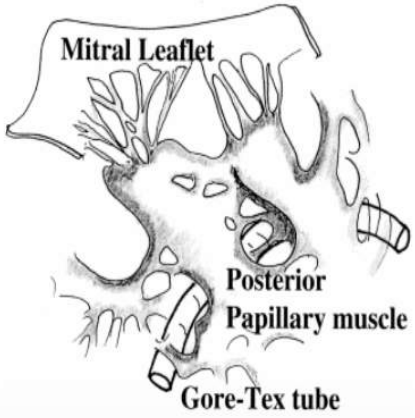
Additional procedures to associate to undersized annuloplasty to enhance effectiveness and durability

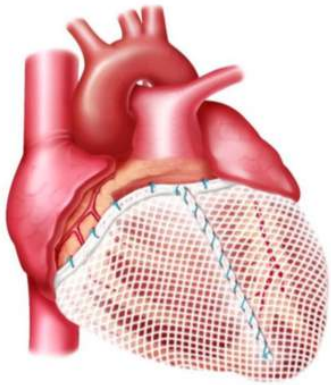




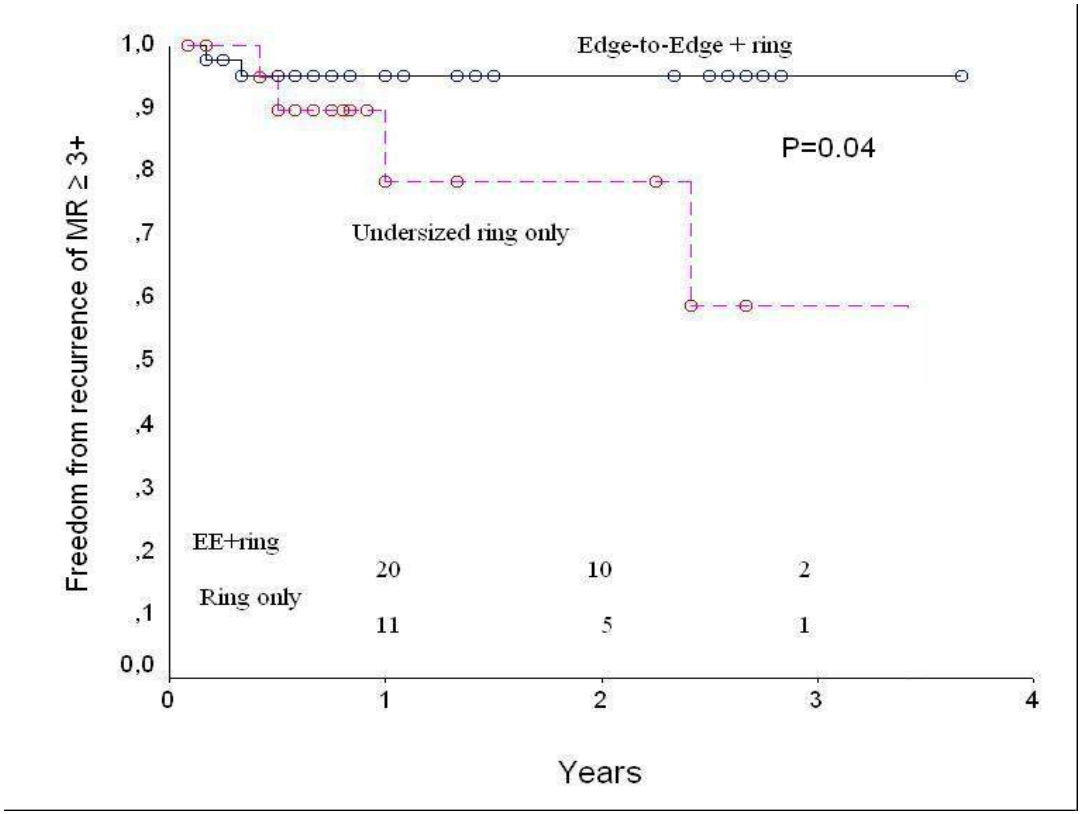


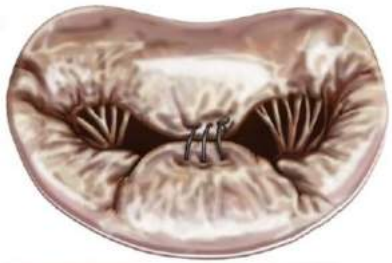


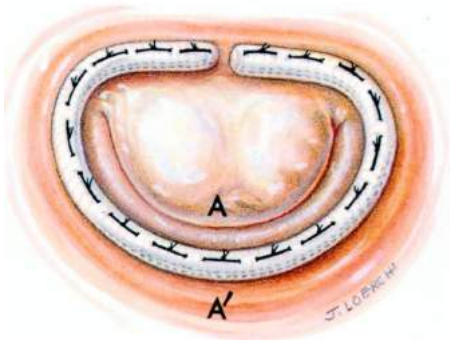


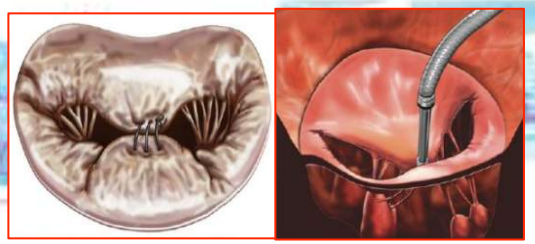


Freedom from recurrence of MR≥3+ in dilated Cardiomyopathy.
De Bonis M. et al. Circulation 2005









Long-Term Results (≤18 Years) of the Edge-to-Edge Mitral Valve Repair Without Annuloplasty in Degenerative Mitral Regurgitation

Implications for the Percutaneous Approach

Michele De Bonis, MD; Elisabetta Lapenna, MD; Francesco Maisano, MD;
Fabio Barili, MD, PhD; Giovanni La Canna, MD; Nicola Buzzatti, MD;

Conclusions—In degenerative MR, the overall long-term results of the surgical edge-to-edge technique without annuloplasty are not satisfactory. Early optimal competence (residual MR ≤1+) was associated with higher freedom from recurrent severe regurgitation. (***Circulation*. 2014;130[suppl 1]:S19-S24.**)

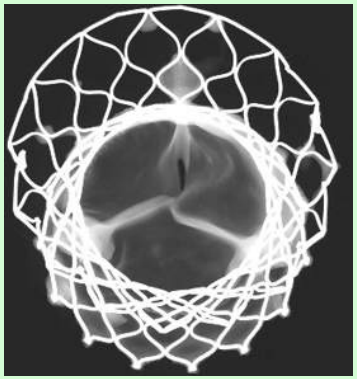
suture without any annuloplasty. Annuloplasty was omitted in 36 patients because of heavy annular calcification and in 25 for limited annular dilatation. A double-orifice repair was performed in 53 patients and a commissural edge-to-edge in 8. Hospital mortality was 1.6%. Follow-up was 100% complete (mean length, 9.2±4.21 years; median, 9.7; longest, 18.1). Survival at 12 years was 51.3±7.75%. At the last echocardiographic examination, MR ≥3+ was demonstrated in 33 patients (55%). At 12 years, freedom from reoperation was 57.8±7.21% and freedom from recurrence of MR ≥3+ was 43±7.6%. Residual MR >1+ at hospital discharge was identified as a risk factor for recurrence of MR ≥3+ (hazard ratio, 3.8; 95% confidence interval, 1.7–8.2; *P*=0.001). In patients with residual MR ≤1+ immediately after surgery, freedom from MR ≥3+ at 5 and 10 years was 80±6% and 64±7.58%, respectively.

Conclusions—In degenerative MR, the overall long-term results of the surgical edge-to-edge technique without annuloplasty are not satisfactory. Early optimal competence (residual MR ≤1+) was associated with higher freedom from recurrent severe regurgitation. (***Circulation*. 2014;130[suppl 1]:S19-S24.**)

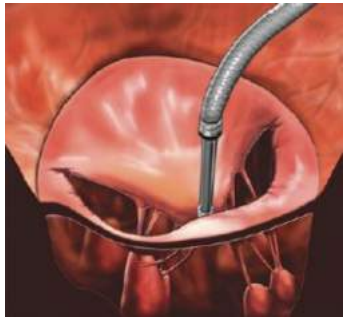
Transcatheter techniques

Approach	Commercial	In Development	Abandoned
Edge-to-Edge Repair	Abbott Vascular	St. Jude Medical	
Direct Annuloplasty		Kardium, mitralis, Valcare, Mitralign, Valtech, Guided Delivery Systems, millipede llc.	QuantumCor, ReCor Medical
Indirect Annuloplasty	Cardiac Dimensions		St. Jude Medical, Viacor, Edwards
Chordal Repair	neoCHORD	Valtech	
Ventricular Remodeling		CardioKinetix Inc., Mardil Medical, BioVentrix	Myocor, Acorn
Enhanced coaptation		middle peak, cardiosolutions, Mitralix, MitrAssist	
MV Replacement		Medtronic, endoValve, neovasc, Valtech, twelve, Cassion, CardiAO, Highlife, Braile, Edwards, Tendyne, NaviGate	

300 000 TAVI



Partner II	SURTAVI
2000 Pts	*2500 Pts*
Partner AB	*1057 pts*
Corevalve US	*747 pts*
Choice	*241 pts*
Notion	*280 pts*



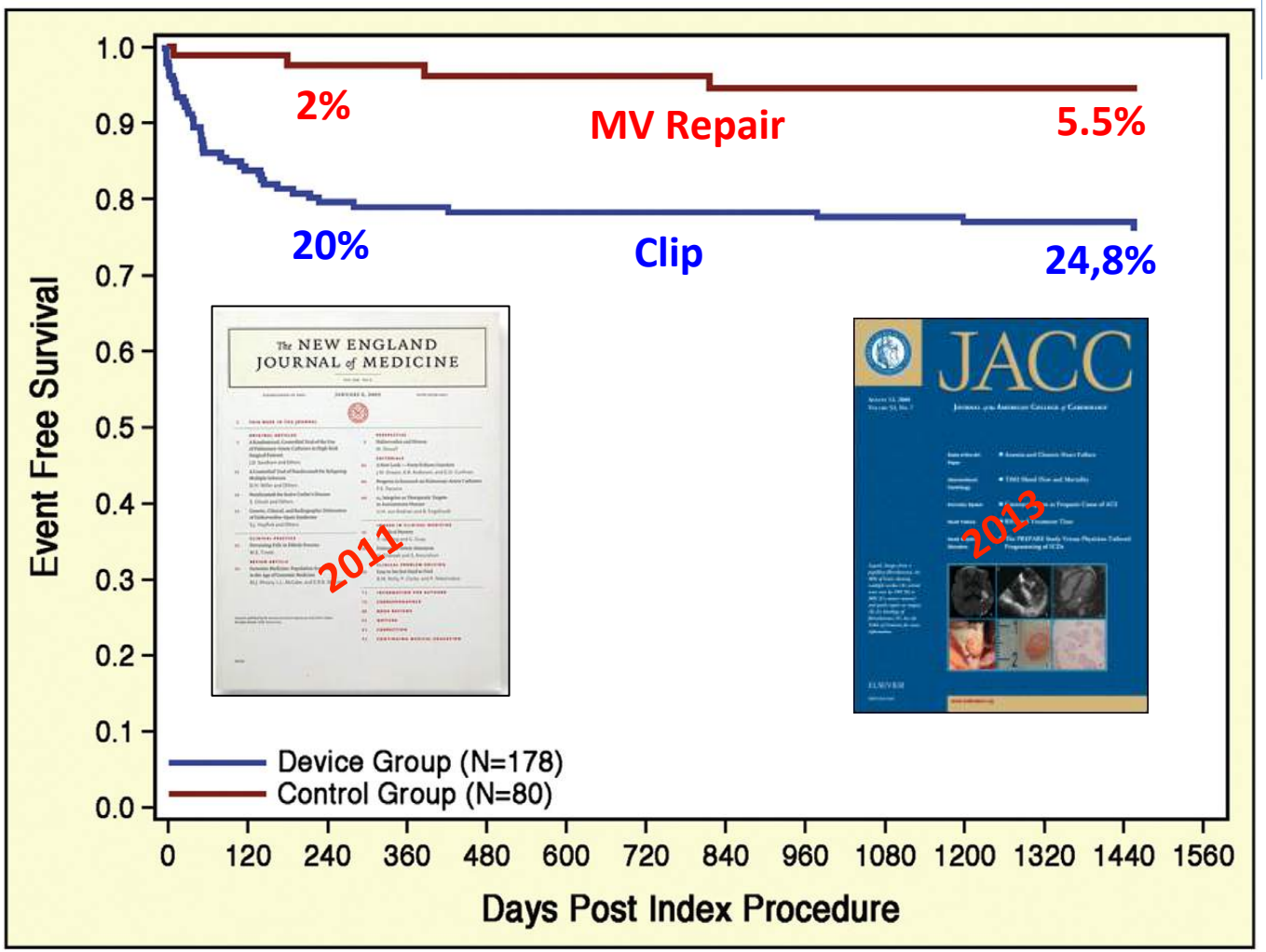
40 000 Clips

Reshape *800 pts*
Coapt *500 pts*
Mitra.fr *288 pts*

Hiride *294 pts*

Everest 279 pts

Reoperation at 1 and 4 years



Eur J Cardiothorac Surg. **2016** Mar 23. pii: ezw093. [Epub ahead of print]

Optimal results immediately after MitraClip therapy or surgical edge-to-edge repair for functional mitral regurgitation: are they really stable at 4 years?

De Bonis M[1], Lapenna E[2], Buzzatti N[2], La Canna G[2], Denti P[2], Pappalardo F[2], Schiavi D[2], Pozzoli A[2], Cioni M[2], Di Giannuario G[2], Alfieri O[2].

Author information

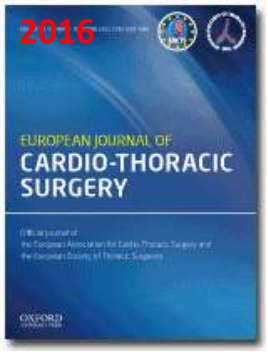
Abstract

OBJECTIVES: Recurrent mitral regurgitation (MR) is common after surgical and percutaneous (MitraClip) treatment of functional MR (FMR). However, the Everest II trial suggested that, in patients with secondary MR and initially successful MitraClip therapy, the **results** were sustained

CONCLUSIONS: In patients with FMR and **optimal** mitral competence after MitraClip implantation, the recurrence of significant MR at 4 years is not uncommon. This study does not confirm previous observations reported in the Everest II randomized controlled trial indicating that, if the MitraClip therapy was initially successful, the **results** were sustained at 4 years. When compared with the surgical EE combined with annuloplasty, MitraClip therapy provides lower efficacy at 4 years.

patients) and 4 years (21 patients) showed a significant increase in the severity of MR compared with the corresponding 1 year grade (all P < 0.01). Freedom from MR ≥ 3+ at 4 years was 75 ± 7.6% in the MitraClip group and 94 ± 3.3% in the surgical one (P = 0.04). Freedom from MR ≥ 2+ at 4 years was 37 ± 7.2 vs 82 ± 5.2%, respectively (P = 0.0001). Cox regression analysis identified the use of MitraClip as a predictor of recurrence of MR ≥ 2+ [hazard ratio (HR) 5.2, 95% confidence interval (CI) 2.5-10.8, P = 0.0001] as well as of MR ≥ 3 (HR 3.5, 95% CI 0.9-13.1, P = 0.05).

CONCLUSIONS: In patients with FMR and **optimal** mitral competence after MitraClip implantation, the recurrence of significant MR at 4 years is not uncommon. This study does not confirm previous observations reported in the Everest II randomized controlled trial indicating that, if the MitraClip therapy was initially successful, the **results** were sustained at 4 years. When compared with the surgical EE combined with annuloplasty, MitraClip therapy provides lower efficacy at 4 years.



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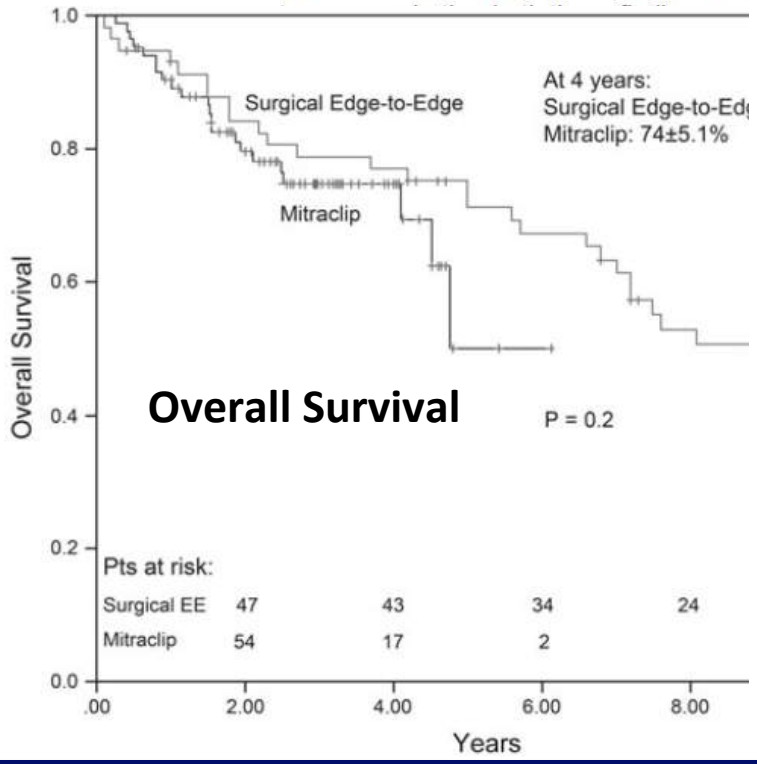
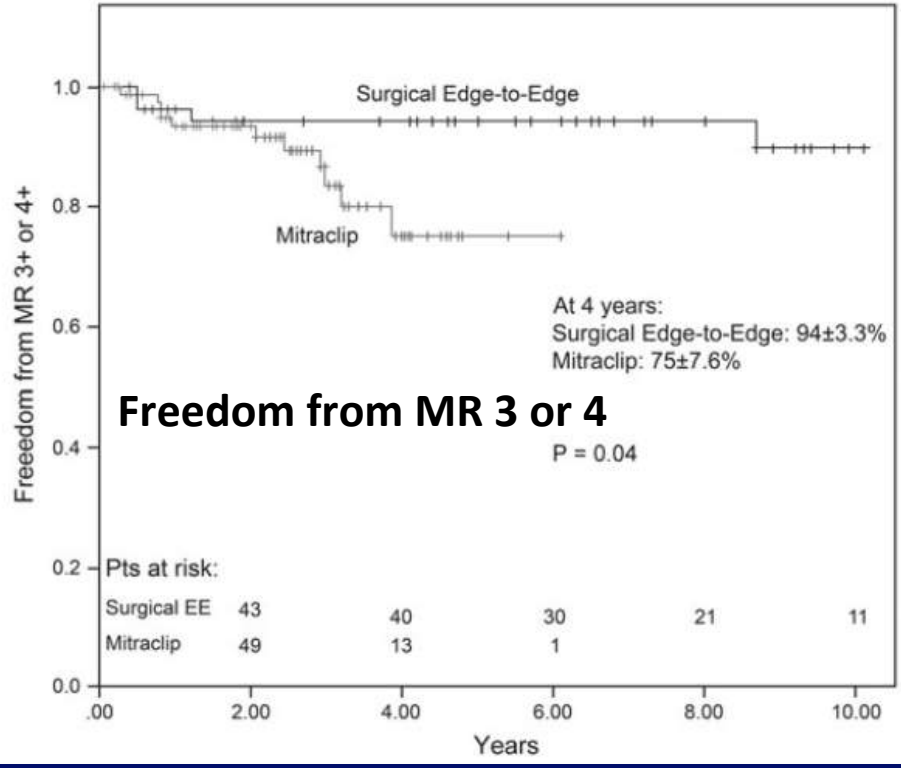
OBJECTIVES: Recurrent mitral regurgitation (MR) is common after surgical and percutaneous (MitraClip) treatment of functional MR (FMR). However, the Everest II trial suggested that, in patients with secondary MR and initially successful MitraClip therapy, the **results** were sustained at 4 years and were comparable with surgery in terms of late efficacy. The aim of this study was





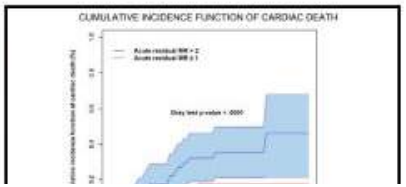
What is a "good" result after transcatheter mitral repair? Impact of 2+ residual mitral regurgitation

Nicola Buzzatti, MD,[a] Michele De Bonis, MD,[a] Paolo Denti, MD,[a] Fabio Barili, MD,[b] Davide Schiavi, BS,[a] Giovanna Di Giannuario, MD,[a] Giovanni La Canna, MD,[a] and Ottavio Alfieri, MD[a]

ABSTRACT

Objective: The study objective was to assess the impact on follow-up outcomes of residual mitral regurgitation 2+ in comparison with ≤1+ after MitraClip (Abbott Vascular Inc, Santa Clara, Calif) repair.

Methods: We compared the outcomes of mitral regurgitation 2+ and mitral



Conclusions: Residual 2+ mitral regurgitation after MitraClip implantation was associated with worse follow-up outcomes compared with <1+ mitral regurgitation, including survival, symptom relief, and mitral regurgitation recurrence. Better efficacy should be pursued by transcatheter mitral repair technologies. (J Thorac Cardiovasc Surg 2016;151:88-96)

15.3% ± 3.8% and 45.2% ± 6.8%, respectively (Gray test $P < .001$). Multivariate model showed that mitral regurgitation 2+ was the only factor associated with the development of mitral regurgitation ≥3+ at follow-up (adjusted hazard ratio, 6.71; 95% confidence interval, 3.48-12.90; $P < .001$). Mitral regurgitation cause was not associated with cardiac death and recurrence of mitral regurgitation ≥3+ at follow-up. No relationship between New York Heart Association class and follow-up time after MitraClip implant was found (odds ratio, 1.07; 95% confidence interval, 0.98-1.15; $P = .11$), and factors related to postoperative New York Heart Association also included residual mitral regurgitation 2+ ($P = .07$).

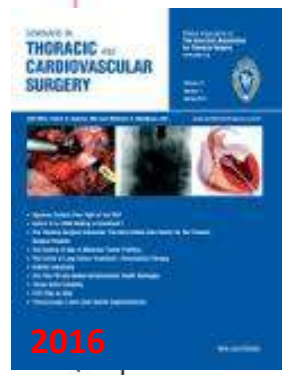
Conclusions: Residual 2+ mitral regurgitation after MitraClip implantation was associated with worse follow-up outcomes compared with ≤1+ mitral regurgitation, including survival, symptom relief, and mitral regurgitation recurrence. Better efficacy should be pursued by transcatheter mitral repair technologies. (J Thorac Cardiovasc Surg 2016;151:88-96)

Perspective

Residual 2+ MR is frequent after MitraClip (Abbott Vascular Inc, Santa Clara, Calif) implantation. In our series, it was associated with worse survival, symptom relief, and MR recurrence compared with the ≤1+ MR group. Better efficacy should be pursued by transcatheter mitral repair technologies, especially before expanding indications to lower-risk patients.

See Editorial Commentary page 97.

See Editorial page 7.



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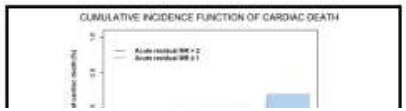
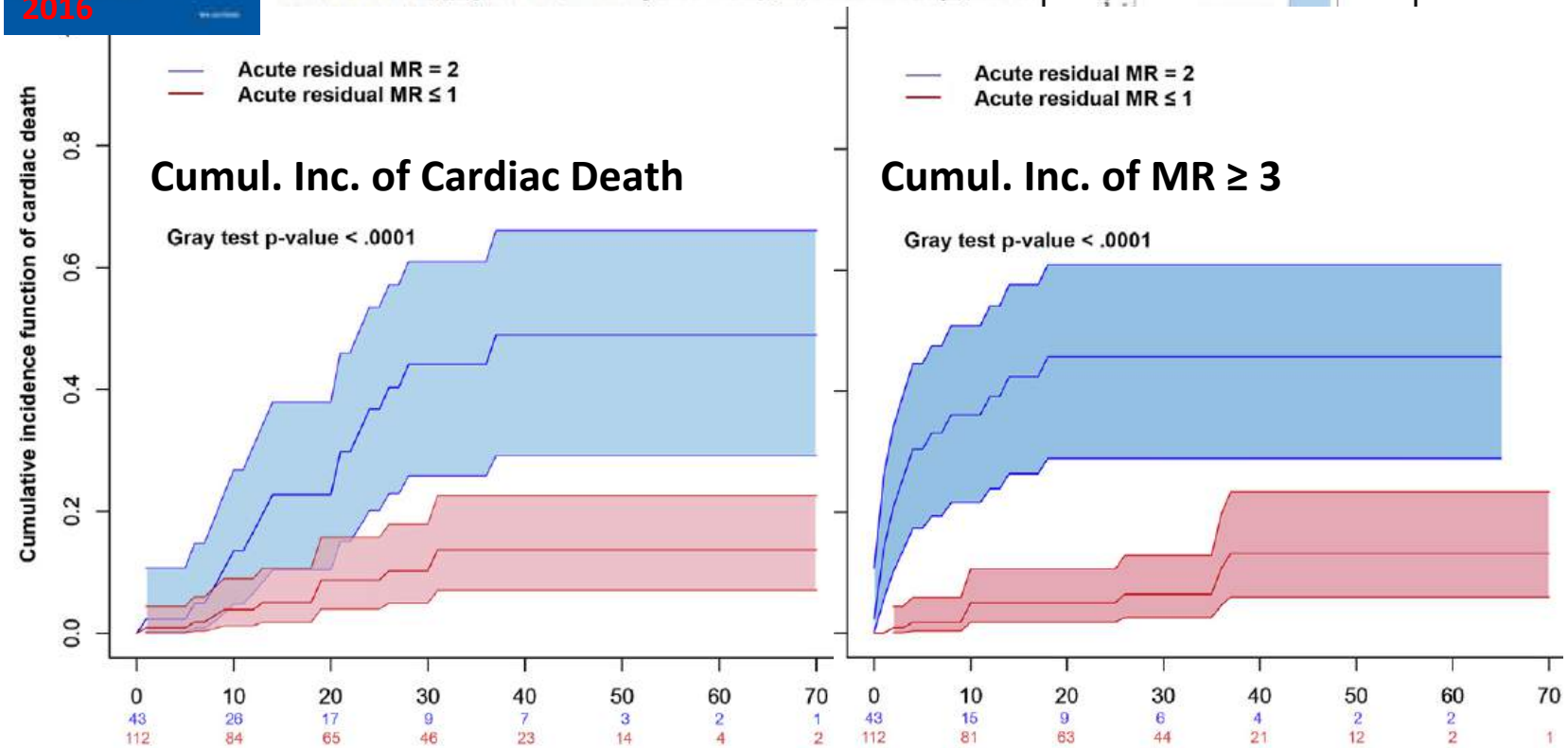
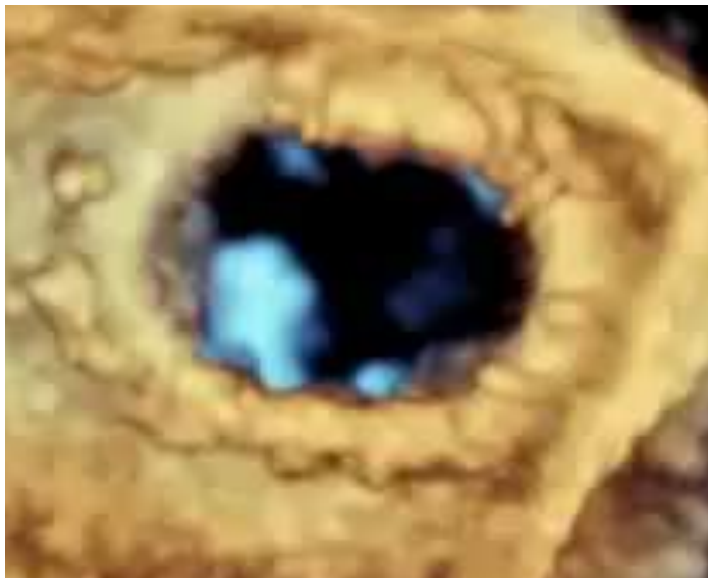


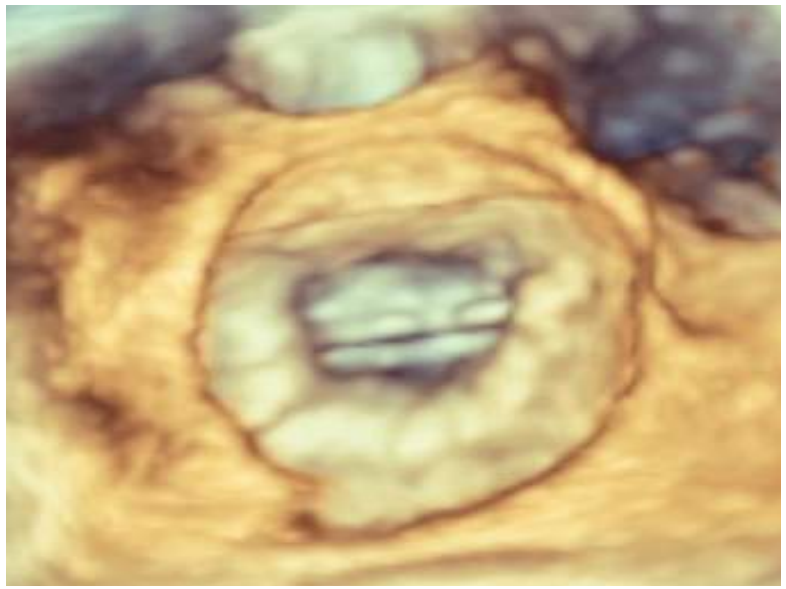


gies. (J Thorac Cardiovasc Surg 2016;151:88-96)

Which is surgical ? Percutaneous ?

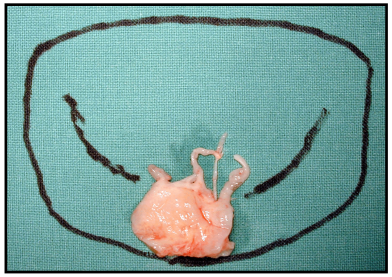


Surgical Ring



Cardioband

Surgical MV Repair



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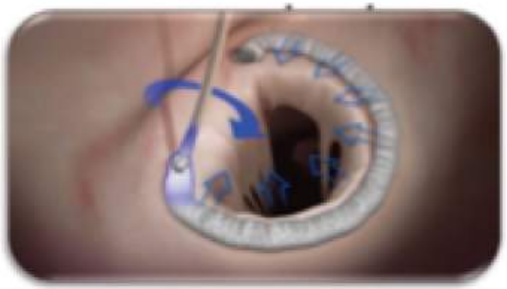
Carpentier French Correction

Percutaneous Mitral Plasty techniques

+



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Fully percutaneous Mitra valve repair

Mitral Repair versus Replacement for Ischemic Mitral Regurgitation

Comparison of Short-Term and Long-Term Survival

Julien Magne, PhD; Nicolas Girerd, MD; Mario Sénéchal, MD; Patrick Mathieu, MD; François Dagenais, MD; Jean G. Dumesnil, MD; Éric Charbonneau, MD; Pierre Voisine, MD; Philippe Pibarot, DVM, PhD, FAHA

Background—When compared to mitral valve replacement (MVR), mitral valve repair (MVRp) is associated with better survival in patients with organic mitral regurgitation (MR). However, there is an important controversy about the type of surgical treatment that should be used in patients with ischemic MR. The objective of this study was to compare the postoperative outcome of MVRp versus MVR in patients with ischemic MR.

Methods and Results—Preoperative and operative data of 370 patients with ischemic MR who underwent mitral valve surgery were prospectively collected and retrospectively analyzed. MVRp was performed in 50% of patients (n=186) and MVR in 50% (n=184). Although operative mortality was significantly lower after MVRp compared to MVR (9.7% versus 17.4%; P=0.03), overall 6-year survival was not statistically different between procedures (73±4% versus 67±4%; P=0.17). After adjusting for other risk factors and propensity score, the type of procedure (MVRp versus MVR) did not come out as an independent predictor of either operative (OR, 1.5; 95% CI, 0.7–2.9; P=0.34) or overall mortality (HR, 1.2; 95% CI, 0.7–1.9; P=0.52).

Conclusion—As opposed to what has been reported in patients with organic MR, the results of this study suggest that MVRp is not superior to MVR with regard to operative and overall mortality in patients with ischemic MR. These findings provide support for the realization of a randomized trial comparing these 2 treatment modalities. (***Circulation.* 2009;120[suppl 1]:S104–S111.**)

ORIGINAL ARTICLE

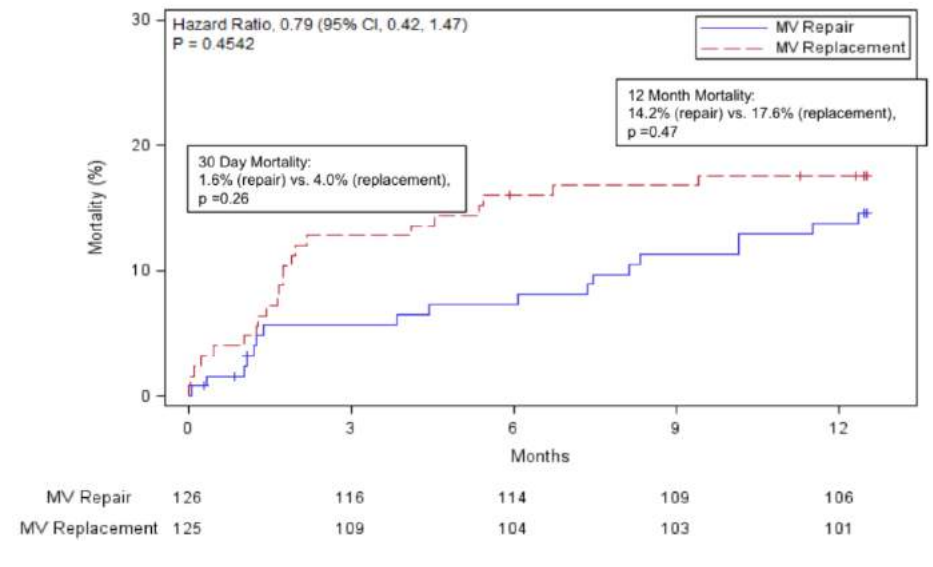
Mitral-Valve Repair versus Replacement for Severe Ischemic Mitral Regurgitation

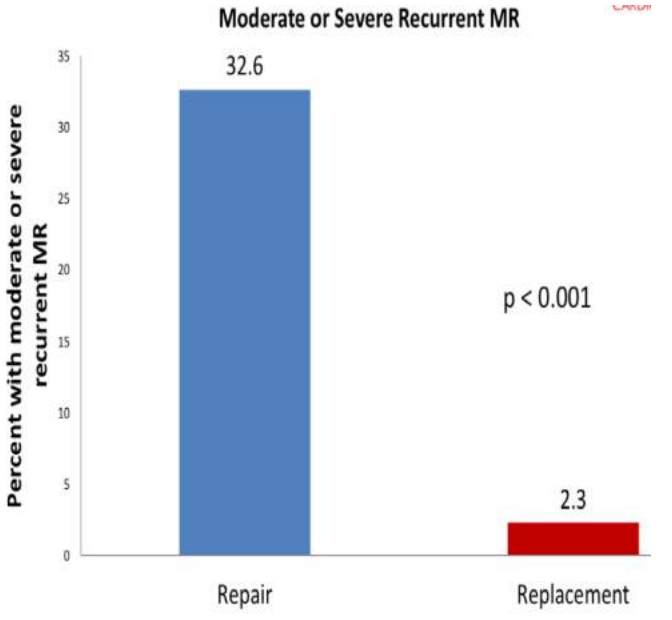
Michael A. Acker, M.D., Michael K. Parides, Ph.D., Louis P. Perrault, M.D., Alan J. Moskowitz, M.D., Annetine C. Gelijns, Ph.D., Pierre Voisine, M.D., Peter K. Smith, M.D., Judy W. Hung, M.D., Eugene H. Blackstone, M.D., John D. Puskas, M.D., Michael Argenziano, M.D., James S. Gammie, M.D., Michael Mack, M.D., Deborah D. Ascheim, M.D., Emilia Bagiella, Ph.D., Ellen G. Moquete, R.N., T. Bruce Ferguson, M.D., Keith A. Horvath, M.D., Nancy L. Geller, Ph.D., Marissa A. Miller, D.V.M., Y. Joseph Woo, M.D., David A. D'Alessandro, M.D., Gorav Ailawadi, M.D., Francois Dagenais, M.D., Timothy J. Gardner, M.D., Patrick T. O'Gara, M.D., Robert E. Michler, M.D., and Irving L. Kron, M.D., for the CTSN*

N ENGL J MED 370;1 NEJM.ORG JANUARY 2, 2014

Results

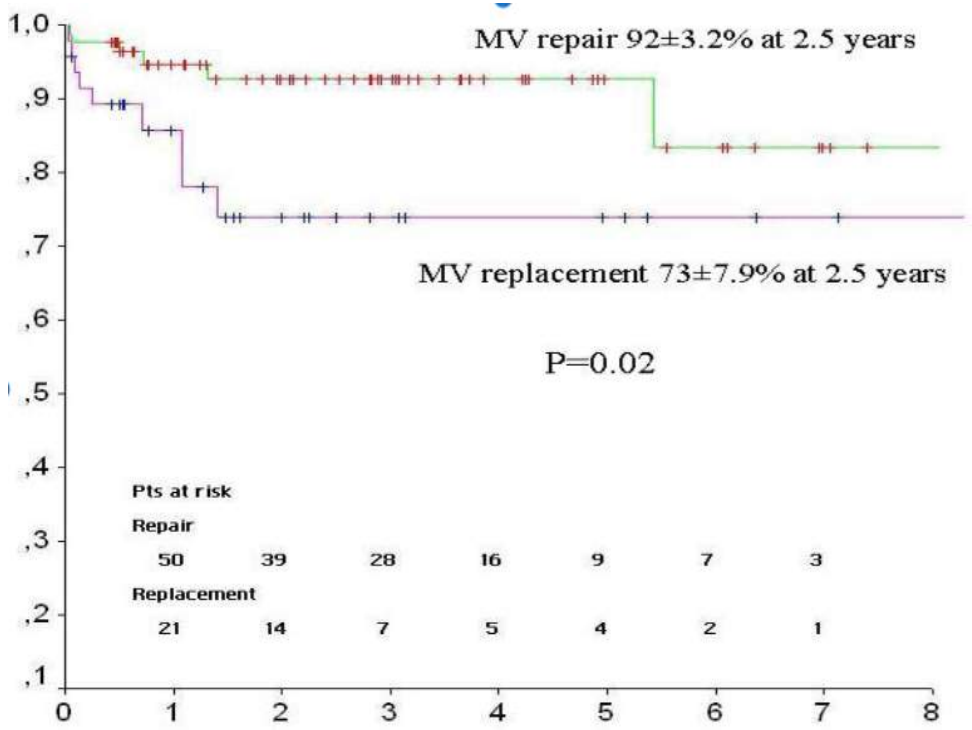
At 12 months, the mean LVESVI among surviving patients was 54.6±25.0 ml per square meter of body-surface area in the repair group and 60.7±31.5 ml per square meter in the replacement group (mean change from baseline, −6.6 and −6.8 ml per square meter, respectively). The rate of death was 14.3% in the repair group and 17.6% in the replacement group (hazard ratio with repair, 0.79; 95% confidence interval, 0.42 to 1.47; P = 0.45 by the log-rank test). There was **no significant between-group difference in LVESVI** after adjustment for death (z score, 1.33; P = 0.18). The rate of moderate or severe recurrence of **mitral regurgitation at 12 months was higher in the repair group** than in the replacement group **(32.6% vs. 2.3%, P<0.001)**. There were **no significant between-group differences in the rate of a composite of major adverse** cardiac or cerebrovascular **events**, in **functional status**, or in **quality of life** at 12 months.



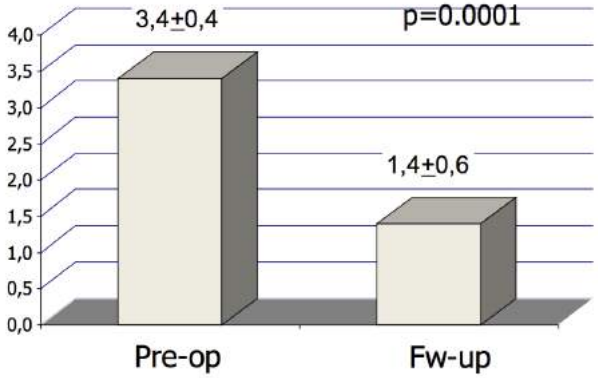


Mitral Replacement or Repair for Functional Mitral Regurgitation in Dilated and Ischemic Cardiomyopathy: Is it Really the Same?

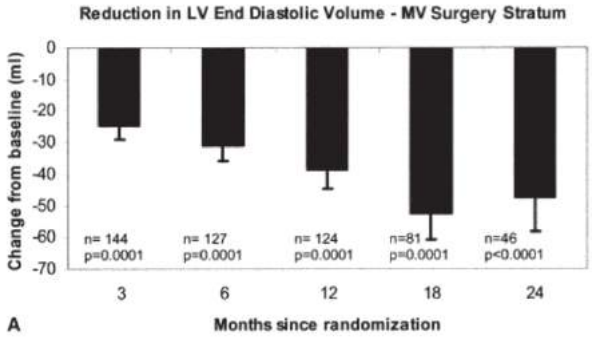
Michele De Bonis, MD, David Ferrara, MD, Maurizio Taramasso, MD, Maria Chiara Calabrese, MD, Alessandro Verzini, MD, Nicola Buzzatti, MD, and Ottavio Alfieri, MD



De Bonis M et al. Ann Thorac Surg. 2012;94:44-51



De Bonis M. et al. Circulation 2005

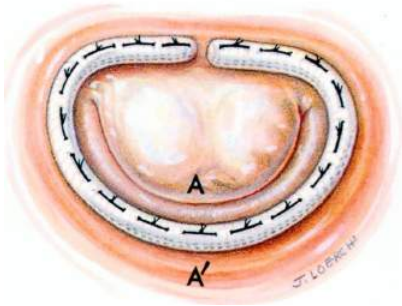


Acker et al. J Thorac Cardiovasc Surg 2006; 132:568-577

MR with poor LV: Which treatment ?

Table 13 Indications for mitral valve surgery in chronic secondary mitral regurgitation

	Class[a]	Level[b]
Surgery is indicated in patients with severe MR[c] undergoing CABG, and LVEF >30%.	I	C
Surgery should be considered in patients with moderate MR undergoing CABG.[d]	IIa	C
Surgery should be considered in symptomatic patients with severe MR, LVEF <30%, option for revascularization, and evidence of viability.	IIa	C
Surgery may be considered in patients with severe MR, LVEF >30%, who remain symptomatic despite optimal medical management (including CRT if indicated) and have low comorbidity, when revascularization is not indicated.	IIb	C



High Surg Risk + Echo criteria

Mitra.fr

EF = 20 to 30%
Stress Echo / MRI

REPAIR or REPLACEMENT

- Duration of CHF
- LVEDD > 65 mm
- LVESD > 51 mm
- Coaptation Distance > 10mm
- Posterior Leaflet-annular plane angle > 45°
- Distal antior Leaflet-annular plane angle > 25°
- End Syst interpapillary muscle distance > 20mm
- Systolic sphericity index > 0,7
- Symetric < Asymetric