Conclusion: The MLS index is a new easy and practical method for assessment of mitral stenosis severity.

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Mitral Balloon Valvuloplasty Long-term Follow-up Of Single Balloon Versus Inoue Balloon Techniques. Independent Predictors Of Survival And Event Free Survival

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Objectives: The single balloon (SB), that is the less expensive technique to perform mitral balloon (MBV) valvuloplasty. This study aimed to demonstrate that MBV with SB Balt has similar outcome and long-term follow-up (FU) than MBV performed with the Inoue worldwide accepted technique.

Methods: From 1987 to 12/31/2011 a total of 526 procedures were performed, being 312 procedures with a FU, 56 (17.9%) with Inoue balloon (IB), the IB group (IBG) and 256 (82.1%) SB Balt group (SBG). The mean FU in IBG was 33 ± 27 (2 to 118) and in SBG 55 ± 33 (1 to 198) months (P<0.0001). Univariate analysis and multivariate Cox analysis were utilized to determine independent predict variables of survival and event free survival (EFS) in both technique groups and major events were (death, cardiac surgery and new MBV).

Results: In IBG and SBG there were: female 42 (75.0%) and 222 (86.7%) procedures, (P=0.0276), mean age 37.3 ± 10.0 (19 to 63) and 38.0 ± 12.6 (13 to 83) years (P=0.7138), sinus rhythm 51 (91.1%) and 215 (84.0%), (P=0.1754), echo score (ES) 7.6 ± 1.3 (5 to 10) and 7.2 ± 1.5 (4 to 14) points (P=0.0528), echo mitral valve area (MVA) pre-MBV 0.96 ± 0.18 and 0.93 ± 0.21 cm^2 (P=0,2265). Post-MBV mean MVA (Gorlin) 2.00 ± 0.52 and 2.02 ± 0.37 cm^2 (P=0.9550) and at the end of the FU there were: echo MVA 1.71 ± 0.41 and 1.54 ± 0.51 cm^2 (P=0.0552), new severe mitral regurgitation in 5 (8.9%) and 17 (6.6%) patients (P=0.5633), new MBV in 1 (1.8%) and 13 (5,1%), (P=0.4779), mitral valve surgery in 3 (5.4%) and 27 (10.4%), (P=0.3456), deaths 2 (3.6%) and 11 (4.3%) deaths, (P=1.000), being cardiac deaths 1 (1.8%) and 9 (3.5%), (p=1.0000), major events 5 (8.9%) and 46 (18.0%), (P=0.1449). In univariate analysis and multivariate Cox analysis the SB or IB technique used do not predict survival or EFS and independent risk factors to survival (multivariate Cox analysis with 2 models with 5 and 6 variables) were: age <50 years (P=0.016, HR=0.233, 95% IC 0.071-0.764), ES ≤8 (P<0.001, HR=0.105, 95% IC 0.34-0.327), MBV dilatation area (P<0.001, HR 16.838, 95% IC 3.353-84.580) and mitral valve surgery in the FU (P=0.001, HR=0.152, 95% IC 0.050-0.459) and to EFS: prior commissurotomy (P=0.012, HR=0.390, 95% IC 0.187-0.813) and post-MBV MVA ≥1.50 cm^2 (P<0.001, HR=7.969, 95% IC 3.413-18.608).

Conclusions: MBV with SB and IB were equally efficient with similar survival and EFS in the FU. Independent predictors of survival were: age <50 years, ES ≤8 points, MBV dilatation area and mitral valve surgery in the FU and of event EFS: prior commissurotomy and post-MBV MVA ≥1.50 cm^2.

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Major clinical Outcomes after Mitral Valve Repair in Low Risk Patients

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Background: To report the short-term clinical outcomes of patients with severe mitral valve regurgitation undergoing mitral valve repair.

Methods: Four hundred forty patients who underwent mitral valve repair between 2003 to August 2012 in our Institution were identified by using a Society of thoracic Surgeon (STS) standardized database. We excluded those patients who had previous coronary artery bypass surgery or valve surgery or endocarditis from the study. The STS mortality risk sore 3 was used as a cutoff point to define the study group.

Results: Three hundred fifty nine patients with STS mortality risk score lower than 3 were included in the analysis. Observed 30-day mortality and other major clinical outcomes and predicted outcomes are presented in the following table.

Major Postoperative Clinical Outcomes after Mitral Valve Repair.

	Observed Outcomes (N=359)	STS Predicted Outcomes
Mortality (%)	2 (0.6)	0.6
Stroke (%)	4 (1.1)	1.0
Renal-failure (%)	1 (0.3)	2.0
Total ICU hours	43.2±65.7	
Prolonged ventilation (%)	21 (5.8)	5.7
LOS (days)	5.9±4.5	
Postoperative atrial fibrillation (%)	100 (27.9)	
Total PRBC (ml)	301.5±581.8	
Readmission to hospital (%)	31 (8.6)	
Moderate or Severe postoperative mitral valve regurgitation (%)	4 (1.1)	
STS Predicted Morbidity or Mortality (%)		10.8

Conclusions: Our single center experience of isolated mitral valve repair in patients with STS mortality score lower than 3 is generally in concordance with the predicted STS outcome rates. The postoperative mitral regurgitation was lower than reported rates in published articles.

Other

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Follow-up Results And Health-related Quality-of-life After Implantation Of Left Ventricular Passive Containment Device For Heart Failure And Dilated Cardiomyopathy

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Objective: We conducted a prospective study of the clinical outcomes and health-related quality-of-life after implantation of the CorCap cardiac support device (Acorn Cardiovascular Inc.) for dilated cardiomyopathy.

Methods: The CorCap was implanted in case of dilated cardiomyopathy (left ventricular end-diastolic diameter >60 mm. and <80 mm., left ventricular ejectionfraction <30%), symptoms of heart failure (NYHA class III or IV) despite maximal medical therapy, and good renal, pulmonary and hepatic functions. Echocardiographic follow-up and evaluation with the SF-36 questionnaire were performed. An average 25.1 ± 4.3 follow-up was available.

Results: Forty patients were included. A statistically significant improvement was evident in mean left ventricular ejection fraction, end-diastolic diameter, end-diastolic volume and volume index, end systolic diameter, end-systolic volume and volume index, left ventricular sphericity index at the last follow-up vs. baseline. The cumulative mortality was 10% (no follow-up deaths after the 1st postoperative year). The average physical health domain scores (physical functioning, role physical, general health) were statistically improved. Average mental health domain scores were also increased. Concomitant mitral