

RISK FACTORS OF UNSUCCESSFUL RESTRICTIVE ANNULOPLASTY FOR CHRONIC ISCHEMIC MITRAL REGURGITATION-MEDIUM TERM RESULTS WITH ECHOCARDIOGRAPHIC FOLLOW-UP

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Objectives. Chronic ischemic mitral regurgitation (IMR) is a frequent complication of CAD and is observed in 12-32 of patients after MI. About 10-30% of pts. undergoing MV operation have significant regurgitation during follow up. Mitral valve annuloplasty is the standard surgical technique for the management of IMR.

Method. In a series of consecutive 329 patients with CAD undergoing CABG with mitral valve repair, first 162 were evaluated: 97 male (59,9%), mean age 64,2, mean EuroSCORE 6,7±2,9 and 146 pts (90,1%) with history of acute MI. Transthoracic echocardiography (TTE) with quantitative Doppler measurements revealed moderate MR in 76 pts (46,9%) and severe in 86 pts (53,1%). Undersized ring was implanted in all pts (ring diameter ranged 24-30mm, but sizes 26, 27, 28 were used in 94,9 % of pts). Patients were observed for 4-21 months (Median 7,7±3,0). TTE was performed in all pts.

Results. Severe MR occurred in 11 pts (6,8%). 2 pts of them required reoperation. Statistical analysis revealed that length of coaptation (LC) ($p=0,0002$), NYHA class ($p=0,034$), CCS class ($p=0,027$), Euroscore ($p=0,021$) are the predictors of postoperative MR. Cox regression showed independent predictors of recurrent MR are: age (OR 0.9 $p=0,041$), post-op IABP (OR 3,4 $p=0,023$), BSA (OR 0,084 $p=0,041$), EROA (OR 154,4 $p=0,001$), LVEDVI (OR 1,024 $p=0,001$), LVESVI (OR 1,020 $p=0,044$) and LC (OR 0,011 $p=0,014$). Results depend on: LC (cut off 6,3mm. sensitiv.94% specifi. 85,0% $p<0,05$) and left ventricular geometry and function LVEDVI (cut off 82,6 ml/m², 60,0%, 61.3%, $p<0,05$). LVESVI (cut off 54,2ml/m², 60,0%, 68.8%, $p<0,05$), LVEF (cut off 35%, 75,0%, 65,0%, $p<0,05$) Risk of IMR recurrence-Cox multivariate analyzes-if four predictors are present: LC ≤ 6.0mm. IMR severe pre-op, LVEF ≤ 35 pre-op. BSA ≤ 1,9 pre-op – 84,33% for three predictors-LC, IMR and LVEF- 50,13% for three predictors- LC, IMR, BSA- 60,08% respectively.

Conclusions. We identified clinical and echocardiographic parameters associated with repair failure, that suggests some patients with IMR might be better served by MV replacement than repair.