

P144. The Predictor Of Progression Of Ischemic Mitral Regurgitation After Off-pump Coronary Revascularization In Patients With Poor Left Ventricular Function.

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OBJECTIVES: Although coronary artery bypass grafting (CABG) has been frequently performed without cardiopulmonary bypass, concomitant mitral valve procedure would be beneficial, when progression of ischemic mitral regurgitation (IMR) is highly predicted. We sought to delineate the incidence and predictor of progression of IMR and congestive heart failure after off-pump CABG in patients with poor left ventricular function.

METHODS: We reviewed clinical records of 79 patients with 30% or less LVEF and grade I or II IMR who underwent off-pump CABG since 1997. The mean age at operation was 67+/-12 years. In the follow-up period, IMR increased to more than grade III in 15 patients (group I), while IMR decreased or unchanged in 64 patients (group II). We examined correlations between progression of IMR and preoperative clinical and echocardiographic factors, including LV dimensions (mm), LVEF(%), papillary muscle distance(PMD) and fractional shortening of PMD(PMDFS: PMD in systole/PMD in diastole)(%) Mean follow-up period was 43.1 + 22.5 months.

RESULTS: Nine (60%) patients in group I and 4 (6%) patients in group II developed congestive heart failure in the follow-up period (p=0.01). The overall cumulative significant MR (> grade III) free rate was 76.7% at 5 years. LVEF and PMD, whereas PMDFS was significantly lower in group I (13.7+/-4.4 %) than that in group II (26.4+/-10.5 %) (p=0.016).

CONCLUSIONS: PMDFS was the significant predictor of progression of IMR after CABG. Mitral valve repair concomitant with CABG can be rationalized in patients with less than 30% of LVEF and less than 15% of PMDFS(%), even when off-pump CABG seems possible.