

ABSTRACTS - 28th EACTS

Part II: Catheter based mitral interventions: The mitral going transcatheter Tuesday, 14 October 2014

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CLINICAL AND ANATOMICAL PREDICTORS OF MITRACLIP THERAPY FAILURE FOR FUNCTIONAL MITRAL REGURGITATION

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Objectives: While several risk factors for recurrent mitral regurgitation (MR) after surgical repair for functional MR (FMR) have been identified, limited data are available to predict the risk of failure after MitraClip. The aim of this study is to evaluate the incidence and the predictors of MR recurrence after MitraClip treatment for FMR and its clinical impact.

Methods: We retrospectively analysed clinical and echocardiographic data of a cohort of consecutive patients who underwent MitraClip therapy for severe or moderately severe symptomatic FMR. All the patients underwent preoperative

coronary angiography and transoesophageal echocardiography (TEE). Data were collected prospectively in a dedicated database and then retrospectively analysed.

Results: A total of 109 high-risk consecutive patients with severe FMR underwent MitraClip implantation between October 2008 and June 2013 at our institution (75% ischaemic aetiology; 25% idiopathic dilated cardiomyopathy). A logistic EuroSCORE $\geq 20\%$ was documented in 48%; 88% of the patients had left ventricular ejection fraction (LVEF) $< 40\%$. Thirty-day mortality was 1.8%. At the time of analysis, 91 (84%) patients had at least 12 months echocardiographic follow-up: 65 (72%) had MR $\leq 2+$ and 26 (28%) had recurrent MR $\geq 3+$ within 12 months. Overall, actuarial freedom from MR $\geq 3+$ at follow-up was $78 \pm 4\%$ and $74 \pm 5\%$ at 1 and 2 years, respectively. Multivariable analysis identified pre-procedural systolic pulmonary artery pressure (sPAP) > 50 mmHg, restricted posterior leaflet motion and residual MR $> 1+$ at discharge as independent predictors of MR $\geq 3+$ at follow-up. Actuarial survival at follow-up was significantly better in patients who did not have MR recurrence within 1 year after the procedure ($85 \pm 5\%$ for patients without MR recurrence and $76 \pm 8\%$ for patients with MR $\geq 3+$ recurrence; $P = 0.05$).

Conclusion: Preprocedural sPAP > 50 mmHg, restricted posterior leaflet motion and residual MR $> 1+$ at discharge are independent predictors of recurrent MR $\geq 3+$ at follow-up. Patients with recurrent MR $\geq 3+$ within 1 year after the procedure have a significantly reduced survival.