

Early and Mid-Term Safety and Efficacy Outcomes After Mitra Clip Implantation in a Real- World Patient Cohort with High Surgical Risk – Insights from the Dresdner Mitra Clip Registry

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Background: MitraClip therapy has recently gained clinical attention after EU and US approval. The Dresdner MitraClip registry reflects real world clinical demographic findings and midterm outcomes in an older patient cohort at high or prohibitive surgical risk with mixed mitral regurgitation (MR) etiology. Methods and results: A retrospective data analysis was conducted for consecutive patients with severe MR treated with the MitraClip system in a single institution between 08/2012 and 08/2015. 160 patients (46% ischemic cardiomyopathy (ICM), 22% dilative cardiomyopathy (DCM) and 32% degenerative mitral regurgitation (DMR) participated in this study. Patients in the ICM group had a significantly higher EURO-II-Score (22 (ICM) vs. 15 (DCM) vs 13 (DMR), $p < 0,05$), representing a more complex comorbidity profile. MitraClip implantation was successful in 97 % of patients among all groups with low peri-procedural complication rates (0,9% for stroke, myocardial infarction). No case of total clip embolization, death or conversion to open heart surgery occurred. There was a significant improvement of MR-severity in all groups when compared to baseline. About 59% of patients achieved NYHA class 2 or less. During 6-month follow up, cumulative mortality for all patients was 13,1%, with a significant higher mortality rate for patients with ICM (18,9 vs. 11,4% DCM; 5,9% DMR, $p < 0,05$). In conclusion, in this real-world cohort of elderly patients at high surgical risk, the MitraClip procedure appears to be safe, feasible and quite effective with low major adverse event rates and positive mid-term results. Patients with reduced LVEF ($< 30\%$) and ICM are at the highest risk.