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Session Title: Best of the Best Oral Abstracts

Session Time: Thursday, May 6, 10:45-11:00 pm (Pacific Time)

Session Location: Aqua 308 (3rd Floor)

MitraClip® Therapy in the EVEREST II High Risk Registry: One Year Results.

Category: Valvular Interventions and Structural Heart Disease

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Background: Patients with significant mitral regurgitation (MR) in NYHA Class III/IV have a poor quality of life and limited survival without surgery. High risk of surgical mortality due to advanced age and co-morbidities sometimes limits treatment options. We report results of patients treated with the MitraClip system (Evalve, Inc.) in a High Risk Registry.

Methods: Patients with grade 3 or 4 MR and a Society of Thoracic Surgery Mortality Risk Model or cardiac surgeon predicted mortality risk $\geq 12\%$ were included. Patients with left ventricular (LV) ejection fraction (EF) $< 20\%$ and end systolic internal dimension (LVID-s) $> 60\text{mm}$ were excluded.

Results: Mean predicted surgical mortality for 78 patients was 18.2%. Demographics are tabulated in the table. Etiology was functional in 62%, degenerative/mixed in 38%. Mean EF and LVID-s were $54 \pm 14\%$ and $3.9 \pm 1.1\text{ cm}$. MitraClips (1-2) were successfully implanted in 96%. Procedural mortality was 0%; 30 day mortality was 7.7% (95% upper confidence bound 14.6%) and statistically significantly lower than predicted ($p = 0.008$). At 30 days, 75% of survivors were NYHA Class I/II. Survival at one year was 75% and 74% of survivors were NYHA Class I/II. No patient had surgery through 12 months.

Conclusion: The high risk status of the cohort is supported by the demographics, predicted surgical mortality, and absence of cross-over to surgery. Results indicate that MitraClip treatment can be performed safely in high risk patients and results in sustained symptomatic improvement.

Baseline demographics:

Mean age (years): 77 ± 10

History of congestive heart failure: 100 %

New York Heart Association Class III/IV: 90 %

Left ventricular ejection fraction: < 40% 21%

Prior cardiac surgery: 59 %

History of coronary artery disease: 85 %

Ongoing atrial fibrillation: 56 %

History of chronic obstructive pulmonary disease: 35 %

Moderate/severe renal failure: 23 %

Mean systolic pulmonary artery pressure (mmHg): 45 ± 14

Author Disclosures:

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