

MitraClip® Percutaneous Mitral Valve Repair - The Sheba Experience

Paul Fefer, Eddie Koifman, Ilan Hai, Micha Feinberg, Victor Guetta
Cardiology, Sheba Medical Center, Israel

Background:

Mitral regurgitation (MR) is a common valvular disease with a large impact on morbidity and mortality. Despite guidelines recommending surgical repair or replacement in patients with severe symptomatic MR, a large proportion of patients will not be operated on due to high or prohibitive surgical risk. The MitraClip® device is a percutaneous technique based on the Alfieri edge-to-edge surgical repair which affords a relatively low-risk option for mitral valve repair in high-risk patients. We report our initial experience with the MitraClip device in symptomatic MR patients treated at our center.

Methods:

Twenty consecutive patients treated with MitraClip® at our center since April 2011 were included. All patients had pre and post-procedural clinical and echocardiographic assessment. Clinical follow-up was recorded at the latest office visit.

Results:

Mean age of the patients was 68 years (range 59-90) and 65% were male. Pure functional MR was present in 70% and pure degenerative MR in only 10%. The remaining 20% had mixed aetiology. Severe and moderate-severe LV dysfunction were present in 85% of patients. All patients were assessed by the heart team and were considered high or prohibitive surgical risk. In one patient the result was unsatisfactory and a clip was not implanted. On average 1.5 clips were implanted per patient. Acute procedural success was obtained in 17 patients (85%). Follow up ≥ 3 months was available for 15 patients (75%) and the mean time to follow-up for these patients was 6 months. All patients were alive at last follow-up. Before the procedure the mean MR grade was 3.75 and NYHA class was 3.35. On follow-up mean MR grade was 1.9 and NYHA was 2.3. A reduction of ≥ 3 MR grades was found in 7 patients (30%) and of ≥ 2 grades in 10 patients (50%). A reduction of ≥ 1 NYHA grade was found in 12 patients (60%) and of ≥ 2 NYHA grades in 5 patients (25%).

Conclusion:

The procedure is safe and effective with favorable results in this complex group of high-risk patients. More research is needed to understand which patients are most likely to benefit most from this novel procedure.