

Preliminary Experience Using the Transcatheter Mitral Valve Leaflet Repair Procedure: A Single Center Case Series and Literature Review

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Objective:

The purpose of this study is to assess the preliminary results of transcatheter mitral valve leaflet repair (TMLR) in a single academic center.

Design:

Data was collected prospectively in the cardiology department of Rabin Medical Center in the year 2012

Materials and Methods:

Eight consecutive patients (age 71.5 ± 15.4 , ejection fraction [LVEF] 38.1 ± 10.0) who were poor surgical candidates with severe functional mitral regurgitation (MR) underwent general anesthesia, followed by trans-septal puncture and a TMLR procedure using the MitraClip device.

Results:

All 8 patients were considered to have severe functional MR prior to TMLR treatment and were all symptomatic (mean New York Heart Association [NYHA] class 3.375 ± 0.52). The severity of MR was 4 ± 0 . There were no immediate complications or failures of the procedure. One patient had died on day 5 due to massive gastrointestinal bleeding. Immediately following TMLR, all 8 patients showed profound MR reduction, to an average severity grade of 1.69 ± 0.59 . A month from the procedure, NYHA had decreased to an average of 1.43 ± 0.53 and was grade 2 or below in all our patients. After six months, the MR degree remained 2 or below in 3 out of four patients, with a NYHA average of 1.5 ± 0.58 .

Conclusions:

The MitraClip procedure was shown to be relatively safe, and provides significant clinical benefits to a relatively sick population with severe MR. It is therefore an important alternative to surgery in these patients.