

Reviewer No 1:

Mitral regurgitation (MR) is one of the most common acquired valvular heart disease in adults. Percutaneous mitral valve repair with the MitraClip implantation is a novel percutaneous mitral valve repair (PMVR) technique for high-surgical-risk patients with MR. However, the long-term benefit is still unknown for patients with severe symptomatic MR. This paper reports a study designed to evaluate the one-year outcome after percutaneous mitral valve repair with MitraClip in 46 consecutive patients with severe MR. The study is well designed, and the results are interesting. However, there are several matters to be addressed before this paper is suitable for publication.

In the RESULTS section, Page 8--After percutaneous mitral valve repair, NYHA functional classes and degree of MR improved significantly (Figure 1 a/b). Page 9--On univariate Cox analysis, only plasma BNP was significantly related to the primary study end point. ---The author should report the results with parenthetical reference to the statistical conclusion (HR, CI, p-value) that supports your finding. Statistical tests used to generate each p-value should be specified. The sample size is too small. In this manuscript, only plasma BNP was associated with the primary study end point in univariate cox analysis. Multivariate analyses are lacking in the literature. The association found in this paper must still be regarded as tentative.

Answer:

Thank you very much for your comments.

Comment 1: "The author should report the results with parenthetical reference to the statistical conclusion (HR, CI, p-value) that supports your finding"

Answer: We add the following statements:

- After percutaneous mitral valve repair, NYHA functional classes and degree of MR improved significantly (**both $p < 0.001$**) (Figure 1 a/b).
- On univariate Cox analysis, only plasma BNP was significantly related to the primary study end point (**HR, 6.074; 95% CI, 1.257-29.239; $p = 0.012$**).

Comment 2: "Statistical tests used to generate each p-value should be specified"

Answer: In the Methods, we stated:

"Numeric values were expressed as the mean \pm SD. Continuous variables were compared between groups using unpaired t-tests (for normally distributed variables) or Mann-Whitney U-test (for non-normally distributed variables). Chi-square analysis was used to compare the categorical variables. Categorical data were expressed as numbers of patients and percentages. Continuous variables were compared between patients before and after MitraClip® implantation, using paired Student's t-tests (for normally distributed variables) or Wilcoxon test (for non-normally distributed variables). McNemar's test was used to compare

categorical variables before and after MitraClip® implantation. All variables in tables 1 and 2 were evaluated regarding the primary study endpoint in a univariate Cox proportional hazards model. Receiver operating characteristic (ROC) curves were generated to define the cut-off values for plasma BNP. Freedom from all-cause mortality was analyzed using the Kaplan-Meier method, and survival curves were compared with log-rank tests. A p-value <0.05 was considered to be statistically significant. All probability values reported were two-sided. A statistical review of the study was performed by a biomedical statistician. Analyses were performed using SPSS software (version 20.0; SPSS Inc., Chicago, IL, USA)."

Comment 3: "In this manuscript, only plasma BNP was associated with the primary study end point in univariate cox analysis. Multivariate analyses are lacking in the literature. The association found in this paper must still be regarded as tentative."

Answer: We add the following statement:

"As our study examined relatively few patients, the associations found in this paper must still be considered preliminary."

Reviewer No 2:

Comment: "Good article, well written, interesting for the reader, with a useful "take home message"

Answer: Thank you very much.

Reviewer No 3:

Comment: "It is a fine report about the clinical course of percutaneous mitral valve repair. One point should be addressed. Are there any differences of clinical course after mitral valve repair between patients with organic and functional mitral regurgitation?"

Answer: Thank you very much for your comment.

In our study there were no differences of clinical course after mitral valve repair between patients with organic and functional mitral regurgitation. There were as well no differences in NYHA classes 3 months after MitraClip as no differences in mortality (Table 1).

We add the following statement: **In our study, there were no differences in clinical course after mitral valve repair between patients with organic and with functional mitral regurgitation.**