Reviewer’s report

Title: Preoperative left ventricular ejection fraction and left atrium reverse remodeling after mitral regurgitation surgery

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Reviewer: Eustachio Agricola

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General comments

Even though the paper is well written, it is not completely original. The strengths of the study are the high cut-off value used to define the LA reverse remodeling and the exclusions of patients with more than mild residual post-operative MR. I have few remarks that should be considered in any revision.

Major Comments

The etiology of MR included in the study is not well defined. The authors say that only patients with degenerative MR were enrolled but the study population is not well defined. I suspected that the study population included patients with organic MR, that is patients with degenerative (prolapse and/or flail), rheumatic MR, post-endocarditic. Therefore in the methods the characteristics of the population have to be better described.

Why the patients were followed at 2 and 10 months?

The 2 groups of patients (patients underwent repair and patients underwent replacement) should be analysed separately because the effect of the type of surgery on LAR could be different.

Other important variables should be included in the analysis as predictors of LAR. In particular the post-operative transmitral gradient and in repair groups the type of repair for example the presence or not of annuloplasty.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests.