Is MitraClip therapy really an alternative therapeutic option in functional mitral regurgitation when compared with ring annuloplasty?

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A report by Taramasso et al. [1] describes their study of a new therapeutic modality, MitraClip therapy. There are multiple deficiencies in the article we would like to discuss. First, we disagree with the statement made in the title. The article actually compares the results of ‘downsized ring annuloplasty’ with MitraClip therapy in functional mitral regurgitation, but the title uses the misnomer ‘surgical mitral repair’. The title gives the wrong impression that the results of mitral valve repair surgery were compared with MitraClip therapy, but only one type of repair, the downsized ring annuloplasty, was mentioned. This may also lead cardiologists and cardiovascular surgeons with little or no experience in this field to wrongly interpret the article, as MitraClip therapy may be considered as a therapeutic alternative to valve repair surgery with low morbidity and mortality. Mitraclip therapy was associated with the results of the EVEREST II [2] study, which has gained popularity lately and been presented as a therapeutic alternative to surgical therapy, but this is a very early misinterpretation [3].

In the study, of 91 patients, only 32 (35%) received isolated ring annuloplasty, whereas 59 (65%) received concomitant surgical procedures, 35% coronary artery bypass grafting, 25% tricuspid valve repair and 26% ablation therapy for atrial fibrillation. Conversely, in the MitraClip group, only MitraClip was performed in 52 (100%) cases. In this group, 1 patient required percutan transfemoral coronary anjioplasty therapy; the procedure was not performed concomitantly, but 1 day prior to Mitraclip therapy. There is an obvious error in methodology, because patients with isolated MitraClip therapy cannot be compared with patients receiving ring annuloplasty concomitantly with other surgical procedures. We cannot compare apples with oranges.

The third wrong interpretation made based on the results of the study is to state that the morbidity and mortality rates were higher when compared with MitraClip therapy. Even without undertaking scientific research, it can be claimed that additional surgical procedures increase morbidity and mortality. As also expressed by the authors, despite the advantages brought by additional surgical procedures directed against other pathologies, they also increase morbidity and mortality. Thus, it is again not rational to compare the results of isolated MitraClip patients with those receiving multiple surgical procedures. The superiority of MitraClip therapy over surgery cannot be justified based on the findings of none to 6 cases of mortality, 3–15 cases of major infections and 5 to none cases of mitral regurgitation (MR) ≥3 on discharge echocardiography in the MitraClip and ring annuloplasty groups, respectively.

Moreover, due to the unsatisfactory results of the edge-to-edge repair technique, even the surgeons who defined the procedure prefer to employ edge-to-edge repair concomitantly with ring or band annuloplasty procedures [4]. In a surgical series of 111 patients, De Bonis et al. [5] reported that the progression of left ventricular remodelling paralleled the recurrence of MR after repair and it was associated with poor outcome. It is not easy to understand how the authors offer the interpretation that ventricular remodelling will not occur following MitraClip therapy despite the statement made by them.

Finally, we think that MitraClip therapy cannot be considered as an alternative therapeutic option in functional mitral regurgitation according to this paper, and further studies should be made before presenting it as an alternative.

REFERENCES