MITRAL VALVE REPAIR FOR MITRAL REGURGITATION IN THE ELDERLY: YES, WE HAVE TO, BUT LOOK AT THE ETIOLOGIES!

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Abstract

The meta-analysis by Di Tommaso et al demonstrated as elderly patients with mitral regurgitation (MR) undergoing mitral valve repair (MVr) had lower short-term mortality and higher long-term survival with respect to patients undergoing mitral valve replacement (MVR). The benefit of repair is such, that initial surgical strategy is advisable in the elderly even in case of mild symptoms if compared with conservative management. However, even if repair can be performed in presence of some specific etiologies, as degenerative MR or secondary MR, there are always cases where a replacement can be an acceptable solution compared to a repair with uncertain future, regardless of our believes and our technical ability. In this subset of patients, the literature does not show any improvement in outcome of transcatheter mitral repair. Mitral valve repair has to be always done, but look at the etiologies and to the consequences that what is done today can cause tomorrow.

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Abstract

The meta-analysis by Di Tommaso et al demonstrated as elderly patients with mitral regurgitation (MR) undergoing mitral valve repair (MVr) had lower short-term mortality and higher long-term survival with respect to patients undergoing mitral valve replacement (MVR). The benefit of repair is such, that initial surgical strategy is advisable in the elderly even in case of mild symptoms if compared with conservative management. However, even if repair can be performed in presence of some specific etiologies, as degenerative MR or secondary MR, there are always cases where a replacement can be an acceptable solution compared to a repair with uncertain future, regardless of our believes and our technical ability.

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Mitral valve repair has to be always done, but look at the etiologies and to the consequences that what is done today can cause tomorrow.

In this issue Di Tommaso et al[1] report a meta-analysis of studies comparing mitral valve repair (MVr) and mitral valve replacement (MVR) for mitral regurgitation (MR) in the elderly. Results support once again our previous knowledge. Patients undergoing MVr had lower short-term mortality and higher long-term survival. Moreover, the incidence of postoperative stroke was 2.1% in MVr versus 4.8% in MVR patients, with a p-value close to statistical significance (0.07).

The benefit of MV repair in the elderly, if compared with replacement,[2] has been known since long time, with survival similar to that of the general population in patients undergoing repair[3]. These findings were confirmed by recent publications[4]. An analysis of the STS database performed by Hendrix et al[5] in patients with degenerative MR demonstrated lower early mortality in repair compared to all the techniques of replacement (no, partial or complete chordal preservation).

The benefit of repair is such, that initial surgical strategy is advisable in the elderly even in case of mild symptoms if compared with conservative management[6].

These recent results are in contrast with the data previously reported in a meta-analysis by Andalib et al[7] in 2014, who showed, in studies with more than 50 patients [?]80 years who underwent MV surgery, an early mortality associated with MVr and MVR of 6% and 16%, respectively. One-year and 5-year survival was 69% and 23% in case of MVr, similar to that of MVR patients (67% and 29%, respectively). It is noteworthy that purpose of that paper was to evaluate the possible role of transcatheter MV repair or replacement in the elderly. The Authors suggested that, as surgery was associated with high early and late mortality, transcatheter therapies could be a valid alternative in selected patients.

However, transcatheter mitral repair in the elderly did not show improvement in outcome. Buzzatti et al[8] showed that, in patients aged 75 years or more and STS PROM [?]8, after weighting, the use of MitraClip had a rate of postoperative complications lower than surgical repair, but increased mitral regurgitation. One-year survival was higher in MitraClip compared to surgical population (97.6% vs 95.3%, p=0.09), but 5-year survival was lower (34.5% vs 82.2%, p<0.001). Five-year MR [?]3 was as well more frequent in MitraClip patients (36.9% vs 3.9%, p<0.001). Alozie et al[9], in patients aged [?]80 years, showed that the use of MitraClip was associated to higher 1-year mortality compared to patients who underwent surgical MVr (21.4% vs 9.5%). Residual MR [?]2 at discharge was present in none of the surgical patients and in 23.8% of the patients treated with MitraClip. Superiority of surgical repair over transcatheter repair, at least in low or intermediate risk elderly patients, seems to be well demonstrated.

However, even if surgery still remain the golden standard for the treatment of MR and repair seems to be the most effective technique to be applied when possible in most elderly patients, we have not to abandon our common sense. Even if repair can be performed in presence of some specific etiologies, as degenerative MR

or secondary MR, there are always cases where a replacement can be an acceptable solution compared to a repair with uncertain future, regardless of our believes and our technical ability. This meta-analysis[1] shows that patients with rheumatic MR have, correctly, a high prevalence of MVR (87%) and nobody doubts that MVR is the best solution for this etiology, irrespective of the global concept of the superiority of repair on replacement. On the other side, we know that degenerative MR can be, in expert hands, repaired in many patients (65% in this study[1]) with good long-term freedom from residual MR. But in patients with ischemic MR repair failure can be high in the mid-term[10] and the risk of a reoperation can be often less acceptable than in younger patients.

Most of the studies deal only with early and late survival, but nothing is said about functional outcome and problems related to MR return. This aspect of the decision depends on us, and the best technical procedure (repair) has to be weighted against higher prevalence of failure of repair, in particular when repair is complex and a longer pump run can affect the outcome of a patient with some comorbidities.

Repair has to be always done, but look at the etiologies and to the consequences that what is done today can cause tomorrow.

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