Reviewer’s report

Title: Long-term outcomes of concomitant tricuspid valve repair in patients undergoing mitral valve surgery

Version: 0 Date: 14 Jun 2020

Reviewer: Matthias Siepe

Reviewer's report:

The scope of the study is interesting and in some circumstances the indication about doing a concomitant TVR is unclear as a matter of fact. This study was initiated to legitimate the indication for concomitant TVR, but there is a major methodological concern. The study groups are not adjusted for tricuspid regurgitation. In the group of concomitant repair, the rate of higher grade TV regurg was very high. Nobody from the readership would not treat a high grade TV regurg together with MV surgery. Only, in moderate and mild TV regurg with or without anular dilatation we have a question This is not adressed in the paper. I think the authors should recalculate the statistics and only take the small proportion of patients that are comparable from their TV and right heart values.

From the given data analysis one can only say that two very different groups have been treated and the sicker group (in terms of RV and TV) is as good in the long-term, when treated properly. Whenever the auhtor do not correct for TV and RV features, I do not think that a propensity matching is useful since the most distinguishable parameter is not taken into adjustment.

More important limitation:

The death rate and stroke rate in the MVS group is worrisome and does not reflect normal survival rates for this procedures. I do also think that a rate of 60% MI II in late follow up is far beyond the target of the audience. Please allow me to comment on the rather healthy population of around 60 years, with 90% degenerative MV problems and most have preserved LV function. In this population a 7% hospital mortality rate and 7% stroke rate is far away from good. Also the pacemaker rate is unacceptable.

Given the bad clinical outcome of the controle group, we need to see the results of "comparable" outcome as compared to the MVS + TVR group with caution.

Level of interest
Please indicate how interesting you found the manuscript:

An article of importance in its field

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published
Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

No

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal

Publons Reviewer Recognition. Springer Nature can send verification of this review directly to Publons (a subsidiary of Clarivate Analytics). If you would like to take advantage of this service, please click on the “Yes” option below. Your name, email address, title of the reviewed manuscript, name of the journal, and date of your review submission (the “Review Data”) will then be transmitted to Publons upon publication of the manuscript. If you have already registered at Publons, they will notify you of the receipt of this review and update your profile as per your settings and their policy. If you are not registered with Publons, you will receive an email from them asking you to register in order for them to be able to recognize your review on your new profile page. Publons may use the Review Data to generate derivative metadata for the benefit of Publons and you as a reviewer, carefully considering the sensitivity of such information. For example, Publons may verify your record as a reviewer by updating your profile published on its
webservice if you have registered for such service or help editors to identify candidate reviewers. Please find the details of processing in Publons’ privacy policy https://publons.com/about/terms

Yes