Author’s response to reviews

Title: Right ventricular remodeling after conduit replacement in patients with corrected Tetralogy of Fallot - Evaluation by Cardiac Magnetic Resonance

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Author’s response to reviews:

Thank you for encouraging us to re-submit our revised manuscript entitled “Right ventricular remodeling after conduit replacement in patients with corrected Tetralogy of Fallot - Evaluation by Cardiac Magnetic Resonance”. We appreciated the insightful comments of the reviewers having considered the suggestions carefully, and modified the manuscript accordingly. The changes to the manuscript have been highlighted in red.

Reviewer reports and response to reviewers:

Reviewer #1: Congratulations for this valuable study

Answer: We appreciate this reviewer’s opinion.

Changes: -

Reviewer #2: I've read with interest the article of Guné et colleagues entitled "Right ventricular remodeling after conduit replacement in patients with corrected Tetralogy of Fallot - Evaluation by Cardiac Magnetic Resonance". Despite the first impression, I 'll not recommend the publication until a more profound analysis has to be performed.

Here my suggestions:
Comment 1 - The study population is too small despite the recent report of SWEDCON. I believe the authors could get more information from the Swedish network.

Answer 1: We acknowledge the reviewers opinion. Truly, the relatively small number of patients may result in a loss of statistical power, requiring validation using larger groups of patients. However, our data have been validated previously in larger studies, but these have been retrospective and heterogeneous in contrast to our prospective study with a homogenous population. Our centre is one of two in Sweden performing these procedures and despite the centralization of the adult population with congenital heart disease the number of patients’ presenting with the disease and fulfilling the criteria for inclusion in the study is limited.

Changes: -

Comment 2 - The percutaneous valve implantation should be added to the comparison for a complete and detailed overview of such problem as other authors do in literature. Including those patients will also increase the study population and give to the readers a full view of Fallot at long-term FU.

Answer: TOF patients with severe PR and RV dilation after prior surgical repair only represent part of the pathological spectrum of transcatheater pulmonary valve replacement (tPVR) candidates. These may include patients with obstructive lesion or mixed disease, and RV dilation may not be as prominent. In the current study, only patients with severe PI were included. tPVR has been shown to be feasible and safe when performed in patients who previously received pulmonary conduit and or bioprosthetic valves between the right ventricle and the pulmonary artery. Therefore, patients in our study may be suitable candidates for tPVR in the future and including such patients in our study would thus not be feasible.

Change: -

Reviewer #3: Excellent paper, very useful to congenital heart surgeons and cardiologists. I have no major criticisms but I would like the authors to explain why they used two different scanners, how the choice was made which scanner to use and whether there was any potential difference between them.

call you - Giles Peek

Answer: Thank you for your remark. The reason for using two different vendors was a change of scanners at the hospital during the study. Patients were examined using the same scanner and protocol at follow-up as at baseline, but the risk of there being any difference between them regarding volumes and function is very small. The effect of different vendors on cardiac mass, function, and volumes have been addressed in: “Effects of steady state free precession parameters on cardiac mass, function, and volumes. Hogan MC et al, Int J Cardiovasc Imaging. 2007;23:583-9. Epub 2006 Dec 13.”
Reviewer #4: Dear Authors,

congratulation for your very nice paper. Please, consider revise the English editing (grammar and spelling); eg, "Blaulock- Taussig", "size post-PVR RV".

Kind regards,

The Reviewer

Answer: Thank you for noticing our errors.

Changes: Appropriate editing has been performed.