Author’s response to reviews

Title: A meta-analysis of perventricular device closure of doubly committed subarterial ventricular septal defects

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Dear editor and reviewers:

Thank you for your decision letter on our MS( JCTS-D-19-00324 entitled “A meta-analysis of perventricular device closure of doubly committed subarterial ventricular septal defects”). We studied the reviewers’ comments thoughtfully and found that all these comments are constructive for revising the manuscript. We have revised the manuscript according to the comments and send it to you again.

To Reviewer 1:

1. The description of 15 is a mistake. This study totally include 9 studies.

2. The Stata software could only retain up to three decimal points, the 0.000 mentioned in “The pooled rate of follow-up residual shunting was 0.000 (95% CI: -0.001-0.001, I2=0.0%, P=0.513).” meant almost all residual shunting disappeared during the followup period.

3. By meta-regression analysis, we found that success rate wasn’t related to publication time. Sorry to make you misunderstand this sentence.
4. In discussion part, we write in following sequence: success rate analysis, severe complications (intraoperative, postoperative and follow-up period), minor complications (residual shunt, aortic regurgitation, tricuspid regurgitation) reported in postoperative and follow-up period. To improve the readability, we add necessary description “Minor complications include trivial to mild residual shunts (RSs), AR, pulmonary regurgitation (PR). Most studies couldn’t provide information regarding intraoperative minor complications. Thus, we would discuss the minor postoperative complications and its outcome in follow-up period.” in discussion part to make the article more organized.

To reviewer 2:

1. The main result of this study could be summarized as following: the success rate was 0.89 (95% CI: 0.86-0.93, I²=26.5%, P=0.208), and the success rate wasn’t related to publication time and sample size, suggesting a relatively short learning curve and the technique’s potential for application. The incidence of severe complications during the hospital stay and follow-up was low, especially for severe valvular regurgitation, device dislocation and cAVB. Patients with a VSD size of 5 mm-10 mm may be suitable for this procedure. Additionally, a ratio of occluder size (mm)/weight (kg) above 0.4 may be another contraindication. Thus, to a certain extent, the purpose of this study “To investigate the safety and efficacy of perventricular device closure of doubly committed subarterial ventricular septal defects (dcsVSDs).” has been achieved. This procedure is safe and efficacy in selected patients. We hope this meta analysis would help cardiac surgeons further understand this procedure and work together to clear the indications and contraindications.

2. We had revised our paper with the help of a native English speaker from AJE. We sent the English editing certificate as a supplementary material.

Thanks for your advice.

Yours

Dr Chen