Reviewer’s report

Title: Left ventricular dysfunction postsurgical patent ductus arteriosus ligation in children: predictor factors analysis

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Reviewer: S Ram Kumar

Reviewer's report:

The accompanying manuscript by Bary et al studies the factors that can predict LV dysfunction following PDA ligation. The so-called post-ligation syndrome is a complex phenomenon of significant clinical relevance, and hence studying it is a relevant exercise. However, I have serious concerns with the manuscript in its current form.

1. Firstly, Table 1 and 2 essentially have the same data for the immediate and 1-month post-ligation variables. These can be combined in one Table.

2. Their data in Tables 3 and 4 and Figures 1 and 2 are unclear and potentially described in an unclear pattern.

   a. It appears that Table 3 simply shows univariate correlation. Did they do any multiple regression analysis with age and size, etc. as cofounding factors?

   b. Similarly, Table 4 compares variables in those with and without EF<29%, again univariate comparison between the groups. They should perform a multiple logistic regression with all these variables and identify if there are any predictors.

   c. More importantly, if I understand Table 3 and Figures 1 and 2 correctly, larger PDA would imply that there is a smaller reduction in FS and LVEDd post-op. In other words, FS stays same if PDA is larger. Their discussion implies the exact opposite. Can the authors clarify?
3. The authors need to clarify their cohort better -
   a. Did this analysis include all PDAs done in the time-period of the study?
   b. How many patients had echos at all time points indicated in Tables 1 and 2?
   c. What is their indication and preferred time for PDA closure - a median age of 15 months seems pretty delayed for PDA closure?

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

An article of limited interest

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

Needs some language corrections before being published

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