Reviewer's report

Title: Initial experience with off-pump left ventricular assist device implantation in single center: retrospective analysis

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Reviewer: Daniel J. Goldstein

Reviewer's report:

The authors from OSUMC build on their previous report of the off-pump technique (J Heart Lung Transplant 2008) by providing clinical follow-up for up to one year for 27 patients undergoing placement of several implantable LVADs without cardiopulmonary bypass support. The authors have been leaders in this field as most anecdotal reports off off-pump placement have been small case reports involving smaller devices.

I have several questions and some comments that I would like to see the authors address and that I believe will strengthen the manuscript.

Questions:

1. The data presented in the manuscript details implants that occurred between 2004-and 2007. Why haven't more recent implants (3 additional years of experience 2008-2010) been included? Are the authors still using off pump techniques? Has the original technique been modified? If more recent data is available, then this should be incoroporated into the manuscript and results updated. If no further data is available, an explanation should be provided. (Major Compulsory Revision)

2. The authors, on pages 11 and 12 compare their bleeding rates to those of the REMATCH and INTREPID trials, both of which included only large implantable devices and are almost a decade old. Moreover, in this study, 15/27 devices are the smaller 2nd generation continuous flow pumps. Hence, the comparison is unfair. The authors should compare their continuous flow bleeding outcomes (for those 15/27 pts) with those of contemporary series (HMII DT and BTT trials, both published in NEJM). (Major Compulsory Revision).

3. The authors spend a significant portion of the paper defining INTERMACS criteria in the Methods section (page 5-6). This is unnecessary as these are standardized definitions that can be referred to the INTERMACS database. Similarly, the authors discuss in detail their surgical technique which was already the subject of a previous well-written manuscript (J heart Lung Transplant 2008). I recommend this section be shortened and referred to in the reference section. (Major Compulsory Revision).

4. The authors in the conclusion attribute the non-statistically significant improvement in one year survival to the off pump technique. This needs to be
softened up. Many events, changes in postoperative care, etc can influence 1 year outcome (Major Compulsory Revision).

5. Authors should include causes of death for all mortalities (Major Compulsory Revision).

6. Authors describe results using 2 decimal points (27.95 days, std dev 18.98, etc) on page 10. Numbers should be rounded to whole figures. (Minor Essential Revision)

Thank you for the opportunity to review this manuscript.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests