Reviewer's report

Title: Automated fastener versus manually tied knots in minimally invasive mitral valve repair: impact on operation time and short-term results

Version: 1 Date: 5 July 2015

Reviewer: Toshiaki Ito

Reviewer's report:

Major compulsory revisions

1. The authors evaluated time saving effect of CoreKnot automated fastener compared with chronological control group of traditional tying method. In using the past cases as a control of a newly developed method, we should eliminate the overall learning curve effect that is not related to the subject. Please mention your experience of minimally invasive mitral surgery for the readers as a background of the study (total number, when you started minimally invasive mitral surgery).

2. Are 60 cases enrolled in this study total serial cases with Carpentier type II lesion in this study period? If you have excluded some cases during this study period, please mention the number of excluded cases and exclusion criteria.

3. Complexity of repair is not the same among Carpentier type II patients, and that may affect the total aortic clamp time. If you have video recording of all cases that are operated endoscopically, you would be able to count the very time you needed for tying the ring fixation knots from the time record of the video. The tying time data from your video may increase scientific value of this report.

Minor Essential Revisions

4. I feel "titan" and "air knots" are colloquial expressions not suitable for a scientific report. Titanium and loose knots may be suitable.

5. Please indicate pages of reference number 7 to 9 papers.

Level of interest: An article of importance in its field

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'