Reviewer’s report

Title: Concomitant surgical ablation for atrial fibrillation (AF) in patients with significant atrial dilation >55 mm. Worth the effort?

Version: 1 Date: 11 June 2015

Reviewer: Antonio Miceli

Reviewer’s report:

In the manuscript "Concomitant surgical ablation for atrial fibrillation (AF) in patients with significant atrial dilatation > 55 mm. Worth the effort?", Pecha et al analysed outcomes of patients with left atrial dilatation > 55 undergoing concomitant AF ablation.

The manuscript is interesting, well written and problem well stated. Literature is updated. However, there are some points which need to be addressed.

1. From a methodological point of view, authors should briefly mention the several types of atrial fibrillation and report in baseline characteristics the rate of persistent AF and long standing persistent AF.

2. Please report in the result section for each group of patient with paroxysmal, persistent and longstanding AF the concomitant procedure surgeons have performed. In other word how many patients with paroxysmal AF, persistent and longstanding AF had Isolated bilateral pulmonary vein ablation, complete left atrial ablation and biaatrial ablation? this is important as a reader might better understand the rate of success from AF.

3. From a statistical point of view, authors developed a multivariable model to identify predictor of SR at 1 year. However, this methodology is wrong as period analysis need to be evaluated using Kaplan-Meyer and COX hazard analysis. Therefore I recommend to use the COX analysis to identify predictors of SR at 1 year. In addition, please report HR and 95% CI.

4. Authors identify a cut off of 70 mm as negative predictor of SR. Although I suppose it is write, from a methodological point of view, authors need to explain how they selected this number. Did you us a ROC curve analysis?

5. Regarding patients who had a further ablation after 6 months, what was the problem. I suppose these patients had an electrical mapping. Was there any gap regarding the atrial transmurality or lack of connection among some atrial lines?

6. I the light of your results, what do authors suggest? A flow chart would be useful in understanding the treatment of concomitant AF ablation. For example a 70 year old patient undergoing CABG surgery and in persistent AF, what do you suggest to perform? pulmonary isolation? left atrial ablation of biaatrial ablation?

5 Please report the rate of atrial flutter in patients who did not received a bilateral
ablation.

6. Please in the figure 1 report patients at risk at 3, 6 and 12 months.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests