Reviewer's report

Title: Atrial fibrillation after pulmonary lobectomy for lung cancer affects long-term survival in a prospective single-center study

Version: 1 Date: 6 November 2011

Reviewer: Jiro Okami

Reviewer's report:

Major points:

1. The survival analysis of this study revealed that postoperative AF did not affect the 5-year survival but associated with late survival.

   1) It is worthwhile to report that AF did not affect the 5-year survival because the association between the survival and AF is still controversial among the previous reports. Please show the survival curve as a figure.

   2) However, it is very difficult to understand the clinical significance of the association between perioperative AF and the late survival. Even though there is a statistical difference, does this result provide any useful information for surgeons? The authors should state the possible mechanism why perioperative AF associates the late survival but not the 5-y survival. In addition, the authors are required to describe the potential utility of this result for surgeons.

   3) Moreover, the authors are asked to show the data in detail regarding the association between AF and the late survival. The background of 5-year survivors according to the status of AF and the survival curves are at least required.

   4) Otherwise, the result of the association between AF and the late survival should be deleted.

2. Postoperative AF is not a big concern for surgeons if AF is transient. But it sometimes prolongs for a few days. Prolonged AF usually requires medication or other treatments and may causes circulatory dysfunction and any other serious complication as a result.

   1) Is it possible to categorize the AF patients according to the severity?

   2) Please describe the timing of AF and the duration of AF in detail. Are there any relationships between these two variables?

   3) Please describe the indication of medication for postoperative AF at the authors’ institution. How many patients required the medication? The treatment was effective for all AF patients?

   4) Are there any factors associated with severe AF?

3. The analysis for predictive factors is interesting.

   1) Predictive factors should be preoperative (or intraoperative) factors.

   2) For what purpose did the authors performed fibro-bronchoscopy? If it was
diagnostic preoperatively, the authors should indicate the indication for fibro-bronchoscopy. If fibro-bronchoscopy was performed to drainage of airway secretion postoperatively, please analyze the predictive factors again excluding this factor.

3) Left lung tumor was not the independent factor associated with AF. Are there any confounding variables with left lung tumor?

Minor points:
4. The authors pointed out the higher mortality in the AF patients.
   1) The episode of AF does not cause patient deaths. Please describe whether AF was secondary after any other postoperative complications. The reviewer would like to know the detail of the clinical courses in the mortalities.
5. Tables are very complicating, so that it is difficult to find the important data.
   1) The left column in table 2 and table 3 is not informative.

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

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I have nothing to declare.