Reviewer's report

Title: Risk factors for endotracheal re-intubation following coronary artery bypass grafting

Version: 1 Date: 3 May 2013

Reviewer: Orlando Petrucci

Reviewer's report:

Liujian and colleagues carried out a retrospective study for evaluation of risk factors for reintubation after elective CABG. This is a common complication in the postoperative scenario.

Major Compulsory revision

The objective is a little confused. They stated, “the aim is to prevent postoperative re-intubation and avoid the condition…” They did not prevent any reintubation. They only tried to assess the associated factors to this complication.

At the Introduction section, they stated: “…undergoing selective and isolated CABG from January 2004 to July 2012…”, what do the authors mean with selective?

The methods section needs an ample revision. They wrote a section MATERIAL AND METHODS, but in the following page there is another Methods section. (please review)

All criteria for intubation, reintubation, and anesthesia technique will need revision. They should also describe how was considered AKI, pneumonia, etc.

One main point is the description of anesthesia technique, which is very important for the nature of the study.

They do not describe how many patients really underwent to surgery and many were excluded. How did they manage missing data? How many patients with combined procedures (valve +CABG) did they exclude from the study?

In the Discussion section, the authors stated that AKI is a very important risk factor for reintubation. However, the AKI is not the cause for reintubation, in fact, the consequence. Please review.

In the table 3, I wouldn’t state independent risk (I know what it means statistically). However, these are associated factors. Please comment.

The statistical analysis needs some revision. They say the unpaired t test or t’-test was used according to homogeneity test for variance? What does it mean t’-test? Why did you test for homogeneity and then performed a t-test? Please review.
The authors did not state which method for logistic regression was used. Please review.

Minor Essential Revisions

Please review the terms:

1. AKI or ARF? (in the text the authors used AKI and in tables was used ARF)
2. Carbon dioxide accumulation or retention? (Figure 2)
3. What does it mean: anesthetics metabolic insufficiency? (Figure 2)
4. intro-operation?

**Level of interest:** An article of limited interest

**Quality of written English:** Not suitable for publication unless extensively edited

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

**Declaration of competing interests:**

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