Reviewer’s report

Title: Intensified thermal management for patients undergoing transcatheter aortic valve implantation (TAVI)

Version: 1 Date: 29 July 2011

Reviewer: Marina Jamnicki Abegg

Reviewer’s report:

As the authors have mentioned in their paper, thermal management is an essential part of perioperative patient care. They propose an astonishingly simple concept of lessening heat loss by prewarming. The study is well designed and clear in its outcome. Therefore I recommend it for publication without major revisions. I do have some minor points, however, that need to be addressed.

Minor Essential Revisions

Methods:

1. End of first paragraph: "... in ITM, air warming was begun in the pre-operative holding area..." It is not really clear whether the prewarming was done on awake or already intubated patients. Please specify. The same comment applies to the first temperature measurement.

2. Last paragraph: What do you mean by “The results of the first nineteen patients with the standard method were considered clinically inadequate”? I guess it means the thermal management was inadequate, not the handling according to study protocol. Please clarify.

Results:

3. Last paragraph: There is a discrepancy in your results: 2 out of 20 patients (ITM) needed ventilatory support for zero hours? Where they extubated immediately upon arrival in the ICU or where they breathing spontaneously through the tube? Please explain.

4. The last sentence is redundant. If 13 out of 19 patients cannot be extubated, then 6 can. There is no need to mention it separately.

5. The very last sentence “for this subsection” does not make sense in the context.

Table 1:

6. Same discrepancy as mentioned under results (Extubation in OR: 18 patients, ventilatory assist: 0 hours).

Figure:
7. Why did the body temperature of the patients with STM drop continuously during surgery? One would expect that after an initial drop in temperature, and once warming is started, temperature can at least be maintained. I can only think of two explanations: Either you did not warm the patients as described in the methods section or “Intraoperative” does not refer to time during surgery but comprises the whole time the patients spent in the OR. This point should be clarified and/or addressed in the discussion.

Discussion:

8. The discussion is the weakest section of the paper. It does not focus on the primary findings of the study, i.e. the efficacy of prewarming vs no prewarming, but elaborates on different warming methods in different surgical procedures. Explaining the time course of heat loss during surgery and why preventing heat loss from the beginning on, as done with prewarming, is superior, should be included into the discussion.

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