Reviewer’s report

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

Version: 1 Date: 22 July 2011

Reviewer: Stefan Schumann

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In their study, Brandes et al. investigate the effects of additional patient prewarming with forced-air on patients’ core temperature during and after transcatheter aortic valve implantation via transapical approach. Brandes et al. demonstrate impressively the benefits of the intensified warming conditions compared to the standard procedure.

Major Compulsory Revisions

1. Comparison of values in table 1 and in the text of the Results section reveals that there are scaling-problems in figure 1.

Values in the table do not match the values indicated in the Table:
Initial temperatures are given as about 36.0°C in table 1 and indicate about 36.2°C in figure 1.

In table 1, as temperature for STM after procedure 35.6°C is given and 35.5°C at ICU admission. In figure 1 the point marking STM after procedure (intraoperative - 120 min) is however positioned lower than the point marking STM at ICU admission (postoperative - 0 min). Temperature ITM at ICU arrival is given as 36.4°C in table 1 and is about 36.2°C in figure 1. Temperature ITM at end of procedure and at ICU arrival are given as 36.4°C. However, both values (intraoperative - 120 min and postoperative - 0 min) differ clearly in figure 1. Furthermore, the time-axes of the intraoperative and the postoperative part are slightly shifted.

2. In table 1 the values for SAPS II score differ by 40% and a p-value indicating the difference to be non-significant is given. Applying Student’s t-test on mean, standard-deviations and n indicates however a significant difference. Please check values. If however significant difference remains the possible influences of difference between both groups need to be discussed.

Minor Essential Revisions

3. Author AB is missing on top of title page.

4. Abstract:
p-value for core temperature is given as “<0.001”, in table 1 it is given as
p-value for ventilation time is given as “<0.05”, in table 1 it is given as “=0.001”, please check and indicate if you mean “<0.001” within table 1. For better consistency “p<0.001” should be given in table 1 for “Extubation in OR”.

5. Abstract and Introduction
It is not completely clear in which time range the additional prewarming was applied. In the Abstract it reads “additional prewarming … in the pre-operative holding area”, in the Methods section it reads was “….was begun in the pre-operative holding area“. Please clarify when additional prewarming was stopped and consider indicating the time range of the additional prewarming in figure 1.

6. Results and Discussion begins with the word „Text“ - please check.

7. Page 6 last line, “for this subsection” appears to not to belong to the text.

8. Table 1: Consider including respective numbers of patients to table 1.

9. “Temperature afterdrop” for ITM might be 0.16 instead of 1.6, otherwise the IQR would not include the median value, please check.

Discretionary Revisions

10. I would like to suggest indicating specific points in time, e.g. arrival in OR, beginning scrubbing, end of scrubbing etc. in figure 1.

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