Reviewer's report

Title: Local versus General Anesthesia for Transcatheter Aortic Valve Implantation (TAVI) - Systematic Review and Meta-Analysis

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Reviewer: Jan Piek

Reviewer's report:

General comment
I read with interest the manuscript by dr. Fröhlich and his colleagues entitled: "Local versus General Anesthesia for Transcatheter Aortic Valve Implantation (TAVI) – Systematic Review and Meta-Analysis". This systematic review and meta-analysis compares general anesthesia with monitored anesthetic care. Seven studies and a total of 1542 patients were included. None of the studies were randomized. The manuscript is well written and has clinical relevance.

Major Revisions
A drawback of the manuscript is that the authors did not have access to the original data, and therefore they used only published data. More importantly, the result of this meta-analysis does not show a uniform interpretation, as there is a large variability of the published relative risk ratio, varying from 0.12 to 1.34 for 30-day mortality.

It is quite unusual to include a study of 12 patients in a meta-analysis.

We would therefore like to see a revised meta-analysis with exclusion of the study done by Behan et al (2008) Although the overall effect may endorse the interpretation that monitored anesthetic care is just as good as general anesthesia, the conclusion of the data in this meta-analysis warrants an evaluation of a randomized controlled trial to make a useful interpretation regarding the anesthetic care during TAVI procedures. This conclusion should be highlighted in both the abstract and the manuscript.

Minor Revisions
The authors speculate on the TAVI procedural costs and the influence of an overall longer hospital stay with TAVI under GA on total cost of the procedure. In the discussion authors speculate that the higher costs might be due to the longer hospital stay. It would be of interest to divide the hospital stay in total ICU days and days at the ward, since this is of major influence both for the total costs and for the clinical outcomes.

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