Reviewer's report

Title: Endothelial glycocalyx in acute care surgery – what anesthesiologists need to know for clinical practice

Version: 1 Date: 09 Sep 2019

Reviewer: Michael C Reade

Reviewer's report:

Point 1:

The authors have not addressed this point satisfactorily. In their reply, they state their opinion that the association between endothelial glycocalyx degradation and worse outcome is "not causative". If this is so, there can be no rationale for targeting any intervention at preserving or restoring the glycocalyx.

Point 2:

This is a reasonable explanation of how the papers came to be selected. However, the methodology described in the paper for the literature review will not match the results obtained by a reader if they attempt to replicate this search. The question of how papers were selected for 'relevance' has not been addressed.

Point 3:

This point has been satisfactorily addressed.

Point 4:

It is difficult to tell what has been changed without marked-up version of the manuscript or specific notation in the text. However, the only additional text I can find that has been added that seems to relate to this comment is "A possible protective effect of iso-oncotic albumin solution has been reported by Jacob et al. in two laboratory studies with isolated heart but didn’t seem to be clinically reproducible 83,84.". This is not an adequate response to the query.

Point 5

This point has been satisfactorily addressed on page 15. It would have made the re-review of this paper considerably easier if the authors could have noted specifically in their reply, or in a marked-up version of the manuscript, how it had been altered in the revised version.
Point 6

This response misses the point. While I agree that the preclinical and very limited clinical evidence is insufficient to justify practice recommendations, simply making this point would be a valuable summary of the current state of knowledge. Many believe there is sufficient evidence to support the use of fibrinogen concentrate over alternatives, and have modified their practice accordingly whereas, as the authors not, this really is not the case.

Point 7.

'Consider regional anesthesia if possible'. That isn't really what I was intending as the modification. If there is insufficient evidence to support this, this should not be the recommendation. Rather, if there is equipoise for a trial, this should be the recommendation. Clinical trials don't just happen - a rationale must be built, typically by papers such as this making a case that investigators use in support of their applications for funding etc. This would be a very useful recommendation.

Minor Point 1.

This point has been satisfactorily addressed.

Minor Point 2.

The manuscript still does not state that these are the major causes of preventable death. The reference that has been added is a review that quotes several primary evidence papers which found that the most common cause of immediate death was brain injury, not haemorrhage.

Quality of written English

Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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