Reviewer’s report

Title: Assessment of cerebral circulation in a porcine model of intravenously given E. coli induced fulminant sepsis

Version: 2 Date: 09 Mar 2017

Reviewer: Tobias Hilbert

Reviewer’s report:

- I still do see a problem with the resting SVRI values significantly differing between control and septic animals. The authors discuss their finding of increasing pulsatility index on the background of "a more potent vasoconstrictor activity in this early phase of experimental shock" that "overwhelms autoregulatory vasodilation". They argue with a "strong vasoconstrictor activity present causing an increased SVRI". However, since resting SVRI values in septic animals are almost halve that of control animals, the increasing SVRI under septic conditions may be questioned. The authors should either reproduce their results by presenting cohorts with homogenous resting conditions, or at least restructure their discussion by avoiding references to changing SVRI values.

- Please decide to use either a non-parametric (Mann-Whitney U) or a parametric test (Students T) to compare variables of the two groups instead of using both tests. Since the data are not normally distributed, a non-parametric test should be used in general.

- Furthermore, correlations (Fig. 1) between not normally distributed data should be analyzed using a rank correlation method such as Spearman's Rho instead of product-moment correlation.

- p6, l19 should be "…the inclusion of 20 animals was planned…" instead of "… were planned…".

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

No

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes
Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

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