Reviewer’s report

Title: Anesthetic management of a patient with a continuous-flow left ventricular assist device for video-assisted thoracoscopic surgery: a case report

Version: 0 Date: 31 Oct 2019

Reviewer: Wolfgang Buhre

Reviewer's report:

In their interesting case report, the authors describe the perioperative course of a patient with LVAD who needs to undergo thoracic surgery for recurrent pneumothorax.

The authors quite carefully described the perioperative course of this patient in order to enable the reader to learn from their experience. In general the manuscript is well written. However, some points require further attention.

1. I do not really understand why the cardiac team decides to give additional filling with crystalloids over a quiet long period (resulting weight increase of 4 kg) due to an expected risk of thromboembolic complications (P.5, first para). Please comment on this.
   Is the anaesthesia performed by an experienced anaesthesiologist in these group of patients?

2. The topic of pVR increase associated with OLv is nicely discussed, however in the discussion it seems appropriate to highlight te use of other techniques to lower right ventricular afterload and/or preload. Can you please discuss the role of inhalative vasodilatators in this setting.
   Moreover a more detailed comparison to other case report can help to understand the reader the different aspect of anaesthesia management, at the moemnt the discussion is relatively focused on the case instead of comparing the current management with the management of different patients by different groups.

3. The case section can probably be shortened by a graphic showing the time course of CVP, and medication used to manage the complex haemodynamic situation.

4. The value of the PAC in this subgroup of patients is still relevant. I prefer to know if the authors see any additional value of the PAC in retrospect.

5. TEE allows quantification of the right heart function. Can you please include some number (Rv-FAC, etc.) if available.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

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

Unable to assess

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

No

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.

Not relevant to this manuscript

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

Needs some language corrections before being published

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