Reviewer's report

Title: Intra-abdominal hypertension due to heparin - induced retroperitoneal hematoma in patients with ventricle assist devices: report of four cases and review of the literature

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Reviewer: Aristidis Dongas

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Reviewers comments:

In general, the article could be improved by revision.

The background mentions only two causal entities, VADs and SRH. Several others are appreciated further on, e.g. IAH ACS and pulmonary dysfunction.

These should be stated in the background to set the scene for the reader to be kept in mind when reading the case studies.

It is not clear, how the concluded therapeutic management derives from the recommended diagnostic indicators and how these were measured. A methods section about the selected indicators and measurements is recommendable.

Case 1 has no data on pulmonary resistance.

Only case 2 states all the components mentioned in the conclusion.

Case presentations 3 and 4 only state VAD implant and surgical removal of the RPH. Assessed indicators and comprehensive clinical history are missing altogether. Hence the connection to recommended therapeutic approach is lost.

The authors conclude the importance of continuous measurement of intra-abdominal pressure and propose the method of intra-cystic pressure. Yet, it is not mentioned that it is continuously measured in any of the presented cases and only case one clearly states the (sporadic?) use of this method, which is later proposed.

Overall, the observation of SRH as adverse event of anticoagulation therapy after VAD implantation is a relevant finding and a valuable contribution for physicians involved in treating ICU patients under anticoagulation.

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published
Declaration of competing interests:

"I declare that I have no competing interests."