

## Peer Review File

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### **Reviewer A**

Pericardial effusion is an abnormal accumulation of fluid in the pericardial cavity, the symptoms of which vary depending on the size, severity and underlying cause of the effusion. Among the many causes of pericardial effusion, some of the main causes are inflammatory, infectious, neoplastic, and traumatic. Minimally invasive awake thoracoscopic pericardial windows are an opportunity for patients with comorbidities and a high risk of general anesthesia. This is a very important scientific area.

Interesting work, I suggest some minor changes.

1. It would be valuable to provide laboratory parameters performed before the procedure and before discharge from the hospital, medications and doses given to patients during the operation.

**REPLY 1: We have added a table providing pertinent information for each case.**

**CHANGES in text: See Table 1**

2. A schematic presentation of the procedure performed would make it easier for readers to understand the procedure and increase the value of the manuscript.

**REPLY 2: We have included a diagram showing port placement**

**CHANGES in text: See diagram. Working on finding an illustrator.**

The article is worth publishing after minor revision.

### **Reviewer B**

This is a case series of four cases in which awake thoracoscopic pericardial window was safely performed in four patients with pericardial effusions and suspected pericardial disease with high general anesthetic risk. I believe that this is an important report of a surgical procedure that can be considered for high-risk patients, but the description might be improved. I have the following suggestions:

1. Please provide a more detailed description of the terms 'adequate sedation' and 'local anesthesia' in each case. Since this paper discusses awake operations, it would be beneficial to include specific information, such as the types of drugs used and the level of sedation administered.

**REPLY 1: We have added a table providing pertinent information for each case.**

**CHANGES in text: See Table 1**

2. In Case 4, which involved a relatively young woman with no other underlying health conditions, why did you choose to proceed directly with awake VATS instead of initially performing pericardiocentesis, as was done in the other cases? In situations where general anesthesia poses a high-risk due to impending tamponade, it is common practice to prioritize pericardial puncture and drainage to stabilize hemodynamics. Could you please provide a rationale for your decision to proceed directly with awake VATS?

**REPLY 2: The other patients had been drained prior to consultation. We were consulted earlier in case 4 so were able to offer surgical drainage prior to attempt at pericardiocentesis. Due to the anterior mediastinal mass, there was no window for pericardiocentesis. Therefore, surgery was the only recourse and offered as there was an urgent need for tissue diagnosis as well and given concerns that this was a lymphoma, surgical biopsy was recommended. This is the advantage of awake procedures – to allow definitive pericardial drainage despite tamponade physiology which would have been impossible if only general anesthesia was the option.**

**CHANGES in text: Not applicable**

3 . Why has awake thoroscopic pericardial window surgery become feasible? It would be more advantageous to elucidate the underlying reasons and context that enable the avoidance of general anesthesia and the necessity for separate lung ventilation.

**REPLY 3: It has become feasible as thoracic surgeons have become more comfortable and facile performing awake thoroscopic surgeries.**

**CHANGES in text: Not applicable**

4 . The potential risks and limitations of the awake thoroscopic pericardial window procedure should be addressed. To assert that the awake thoroscopic pericardial window is a safe procedure, it is crucial to be informed about its potential risks. Furthermore, understanding its limitations and exploring cases where the awake thoroscopic pericardial window may not be appropriate is essential.

**REPLY 4: We will include this in the discussion**

**CHANGES in text: See discussion section**

5 . Please consider including figures, such as representative image data and intraoperative pictures. The description alone can make it challenging to visualize the specific cases where the awake thoroscopic pericardial window procedure was performed.

**REPLY 5: We have included a diagram showing port placement**

**CHANGES in text: See Figure 1.**

6 . A concise table of the four cases might be easier for the readers to understand.

**REPLY 6: We have added a table providing pertinent information for each case.**

**CHANGES in text: See Table 1.**

### **Editorial Comments**

1. For case series in surgery, the authors are recommended to prepare the manuscript according to the PROCESS Checklist and to submit this checklist as supplementary material alongside their submission. In the checklist, please indicate both the detailed “**Page Number, Line Number**” and “**Section and Paragraph**”. You can find an example of a filled checklist at <https://jtd.amegroups.com/article/view/69281/rc>.

**REPLY 1: Checklist completed and submitted**

2. Ensure that the title succinctly encapsulates the condition being addressed.

**REPLY 2: We like the title unless you recommend something else.**

**CHANGES in text: No change required.**

3. Please include “case series” within your keywords. Additionally, we recommend adding “pericardial effusion” as a keyword. Note: There should be 3 to 5 keywords.

**REPLY 3: We have included case series and pericardial effusion to the keywords**

**CHANGES in text: See keywords**

4. The abstract should be between 200 to 350 words; thus, please expand its content. We suggest elaborating on the following aspects:

(1) Background: “Minimally invasive approach has certain advantages that favor its utilization”, please detail the specific advantages of the minimally invasive technique and justify the importance of reporting the awake thoracoscopic pericardial window approach.

(2) Case Description: Include more details, such as the environment where the case series took place (e.g., hospital or clinic type), the timeframe during which the cases were collected, the patient selection criteria, a more detailed demographic profile (e.g., including sex distribution in addition to age), clinical indications for opting for the awake procedure over traditional methods, and particulars on perioperative outcomes (like length of hospital stay and follow-up duration).

(3) Conclusions: Discuss the potential advantages of the awake method over traditional techniques and propose directions for future research based on your case series.

**REPLY 4: We have expanded the abstract**

**CHANGES in text: See Abstract**

5. The statement in the Highlight Box, “Pericardial window is the standard treatment for pericardial effusive disease”, does not appear to be a finding of this study. Please revise this statement appropriately.

**REPLY 5: We have revised this statement**

**CHANGES in text: See highlight box “Pericardial effusive disease can be effectively treated with awake thoracoscopic pericardial window.”**

6. For the “Introduction” section, please consider:

(1) Expand on the rationale: Elaborate on why there’s an increasing need to perform awake minimally invasive thoracic surgery. Include statistics or references to support the rise in patient populations with comorbidities and the complications related to general anesthesia.

(2) Aim of the series: State the aim of your case series more explicitly, perhaps as an investigation into the feasibility, safety, and outcomes of awake VATS pericardial window procedures.

**REPLY 6: We have expanded the introduction**

**CHANGES in text: See Introduction**

7. In at least one case, clearly describe the surgical procedure in a stepwise format. More detailed descriptions of the surgical technique could be beneficial, particularly if there are any novel aspects to the procedure or specific challenges encountered that could inform future practice.

**REPLY 7: We described case 1 in more detail in stepwise fashion**

**CHANGES in text: See Case 1**

8. Quantitative Data: If available, including specific measurements from diagnostic tests (e.g., size of effusion on imaging) could provide a more detailed clinical picture.

**REPLY 8: We expanded details in Case 4**

**CHANGES in text: See Case 4**

9. In the discussion section, please acknowledge the limitations of your case series, which may include the limited number of cases, insufficient breadth of experience to draw broad conclusions, and potential risks involved.

**REPLY 9: We have included in the discussion**

**CHANGES in the text: See Discussion**

