Peer Review File

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Review Comments

Reviewer A

The case is a complex case. I believe the case description would improve with language revision, and more detailed planning report and some intraoperative images.

>Thank you for your kindly advise. We reviewed language revision and added intraoperative image and detailed planning report in case description. (see Page 7, line 104)

Reviewer B

I thank the authors for their work on catamenial pneumothorax.

- 1. I propose to the authors to argue a little more their introduction especially with the prevalence of endometriosis, or even catamenial pneumothorax or endometriosis related pneumothorax.
- >We added some data of etiology about endometriosis and ectopic endometriotic pneumothorax in Introduction. (see Page 5, line 61)
- 2. The catamenial character of the first episode of pneumothorax was on the histology? Or the fact that it occurred during the menstrual period? Not all catamenial pneumothorax are related to endometriosis and not all pneumothorax endometriosis are catamenial.
- >Thank you for good question and advise. The first episode of pneumothorax was related to histologically proven endometriosis. (see Page 6, line 87)
- 3. The authors could specify whether a pleural symphysis was performed at the time of the first thoracoscopy and by what technique?
- >At first time thoracotomy, we performed only partial resection of diaphragm and lung. No pleural symphysis was performed we added the comments in the Case description. (see Page 6, line 92)
- 4. To facilitate readers' understanding, it would be interesting to produce the imagery showing the evolution after surgery. There is a tendency to think that this lung would not be reexpandable. This could encourage surgeons.
- >We have added an image of the surgical findings showing membranous adhesions spreading over the entire surface and insufficient expansion of the lungs. We have also added a X ray image of the lungs re-expanding after surgery. (see Page 7, line 104 and Page 7, line 109)
- 5. It is true that recurrent pleural inflammation can promote pockets of pleural symphysis but this can also be due to the first intervention, especially with pulmonary resection.

>Thank you for good advice and opinion. Exactly as the reviewer B Dr. pointed out pleural inflammation can promote pocket of pleural symphysis. In this case, pleural inflammation may be occurred in the first intervention and recurrent mild catamenial pneumothorax.

Reviewer C

The introduction briefly and effectively introduces the characteristic feature of catamenial pneumothorax, setting a clear background for the case description. However, it could benefit from a brief explanation of what catamenial pneumothorax is, to cater to readers who may not be familiar with the condition.

>Thank you for your wonderful feedback. To make the text more understandable, we have added a brief explanation of what menstrual pneumothorax is in the introduction section. (see Page 5, line 61)

The description of the CT findings could be more detailed to give readers a vivid picture of the rare thoracic finding. For instance, describing the extent and locations of the adhesions could provide more insight.

>We Added it to the text describing the extent and locations of the adhesions. (see Page 6, line 80)

The narrative might flow better if the patient's medical history is presented in a chronological order, starting with her first surgery 5 years ago, followed by the developments leading up to the current presentation.

Including information on the patient's menstrual history and any symptoms correlating with her menstrual cycle might provide a deeper understanding of the case.

>As you pointed out, medical history presented in a chronological order may lead a better understanding. And any symptoms correlating with her menstrual cycle might provide a deeper understanding of the case. However, considering that some readers prefer the current notation, we think it is better not to make any major changes to the notation.

We only added the menstrual cycle and symptoms correlating menstruation. (see Page 7, line 97) Thank you for your good advises.

Reviewer D

1. For the introduction paragraph, the authors need to provide more background information about catamenial pneumothorax. The etiology, epidemiology, clinical manifestation, treatment and prognosis.

Thank you for good advice, we added the background information about catamenial pneumothorax in the introduction paragraph. (see Page 5, line 61)

- 2. According to this case report, the rare thoracic findings are due to repeated pneumothorax and spontaneous remission during the 5 years but had nothing to do with the first operation. So I suggest the authors to revise the title. In addition, according to the present title, this case report should focus on rare clinical findings. However, the content related to rare thoracic finding is too brief.
- >As reviewer said, the rare thoracic findings are due to repeated pneumothorax and spontaneous remission. So we revised the title. Revised title is 'rate thoracic findings due to catamenial pneumothorax with repeated mild relapse and spontaneous remission: a case report.' (see Page 1, line 2)
- 3. Conclusion needs further simplification.

>We revised the conclusion.

4. In the discussion, the authors mentioned treatments for catamenial pneumothorax includes surgical treatment and hormone therapy. But no detailed information about how these two treatments works and how to choose. So please revise the discussion.

For catamenial pneumothorax, surgeons are more interested in the indications for surgery and efficacy of surgery. I suggest the authors add more content about these two points.

>In the discussion section we added the literature comment about the role of surgery and hormone therapy. (see Page 8, line 120)