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## Reviewer A

I believe that diaphragmatic resection is vastly excessive for catamenial pneumothoraces. If I were a patient, I could not accept such a radical procedure. I am afraid they should have considered the lives of the patients. Respiratory function is really important, especially when patients become elderly. Thus, even a single port VATS was not necessary in this case. Umbilical endometriosis is surely interesting to readers, though.

**Comment 1**: "I believe that diaphragmatic resection is vastly excessive"

<u>Reply 1</u>: In this case we performed only partial diaphragmatic resection at the fenestrated site. Thus, diaphragm will be resected only 5-10%. Our purpose is to radical resection of the disease.

**Change in the text**: We added some data about partial resection. (see Page 4, Line 74)

These days, it is gradually being realized that endometriotic lesions are often found on the edge of the middle lobe of the right lung in such patients, although it has been often reported that there are endometriotic lesions on the right diaphragm. In fact, both resection of lesions on the right middle lobe and diaphragmatic covering with an absorbable mesh have successfully cured catamenial pneumothoraces in quite a few patients at our institution. In addition, I am not able to understand why they needed to use hormonal therapy after surgery. If the surgery was perfect to cure the disease, I think that it would be unnecessary. Actually, there are quite a few women who cannot tolerate using gonadotropin-releasing hormone agonist for a long time (even two days!) due to its severe side effects. So, I think that a hormonal therapy for six months might be a kind of "torture" to such patients

**Comment 2**: Hormonal therapy after surgery might not be necessary

**Reply 2**: According to "Management of spontaneous pneumothorax: British Thoracic Society pleural disease guideline 2010", the use of gonadotrophin-releasing hormone analogue results in no recurrence approaching period for 4 years. In our institute, we always consult gynecologists in this issue and they always advice the patient in term of benefits and side effects. The patient is the one to choose her own treatment.

<u>Change in the text</u>: We add data about BTS 2010 guideline recommendation on page 6, line 107-109

## **Reviewer B**



I have three questions, and some content I think you should add.

There is a lack of mention of the cause of the pneumothorax, especially where the air was coming from.

Are there any other reasons or characteristics of the ectopic endometrium growing in the umbilicus in this case?

How long should hormonal therapy with gonadotropin-releasing hormone agonists and oral contraceptives be continued after complete resection of the lesion?

<u>Comment 3</u>: Lack of mention of the cause of the pneumothorax, especially where the air was coming from.

<u>Reply 3</u>: The mechanism of pneumothorax in catamenial pneumothorax is the air was coming from pore at diaphragm

<u>Change in the text</u>: We add the mechanism in page 5, line 102-103.

<u>Comment 4:</u> Are there any other reasons or characteristics of the ectopic endometrium growing in the umbilicus in this case?

**Reply4**: In this case there was no particular reason. Due to the fact that both of the diseases are rare and when it come together it's extremely rare.

Change in the text: No change

<u>Comment 5</u>: How long should hormonal therapy with gonadotropin-releasing hormone agonists and oral contraceptives be continued after complete resection of the lesion? <u>Reply 5</u>: Although, there is no general recommendation or clinical guideline in term of duration of treatment, our gynecologist prefers to use it for 6-12 months the same as treatment in pelvic endometriosis.

Change in the text: We add data in page 6, line 109-112.

