Editorial Office's Comments

(1) Science editor:

This manuscript should be Minor revision. Please carefully refer to the positive comments of reviewers.

Language Quality: Grade B (Minor language polishing)

Scientific Quality: Grade B (Very good)

Response:

Dear Science Editor, thank you for your time and responsible attitude. The point-by-point answers to each reviewer's comments are addressed as follows. Thank you again.

(2) Company editor-in-chief:

I have reviewed the Peer-Review Report, full text of the manuscript, and the relevant ethics documents, all of which have met the basic publishing requirements of the World Journal of Clinical Cases, and the manuscript is conditionally accepted. I have sent the manuscript to the author(s) for its revision according to the Peer-Review Report, Editorial Office's comments and the Criteria for Manuscript Revision by Authors. Please provide the original figure documents. Please prepare and arrange the figures using PowerPoint to ensure that all graphs or arrows or text portions can be reprocessed by the editor. In order to respect and protect the author's intellectual property rights and prevent others from misappropriating figures without the author's authorization or abusing figures without indicating the source, we will indicate the author's copyright for figures originally generated by the author, and if the author has used a figure published elsewhere or that is copyrighted, the author needs to be authorized by the previous publisher or the copyright holder and/or indicate the reference source and copyrights. Please check and confirm whether the figures are original (i.e. generated de novo by the author(s) for this paper). If the picture is 'original', the author needs to add the following copyright information to the bottom right-hand side of the picture in PowerPoint (PPT): Copyright ©The Author(s) 2022. Before final acceptance, when revising the manuscript, the author must supplement and improve the highlights of the latest cutting-edge research results, thereby further improving the content of the manuscript. To this end, authors are advised to apply a new tool, the RCA. RCA is an artificial intelligence technology-based open multidisciplinary citation analysis database. In it, upon obtaining search results from the keywords entered by the author, "Impact Index Per Article" under "Ranked by" should be selected to find the latest highlight articles, which can then be used to further improve an article under preparation/peer-review/revision. Please visit our RCA database for more information at: https://www.referencecitationanalysis.com/.

Response:

Dear Editor-in-Chief, many thanks for your endeavor on this manuscript. All figures are original, and the copyright information has been added to the bottom right-hand side of the pictures in PowerPoint. At the same time, we supplement and improve the highlights of the latest cutting-edge research results by using the RCA database. I have to say that the RCA is a very convenient and helpful database tool. Thank you again.

Reviewer #1:

Dear reviewer #1, thank you for your time and responsible attitude. You gave us very constructive and valuable suggestions, and all those suggestions must improve our work remarkably. Thanks again!

Scientific Quality: Grade C (Good)

Language Quality: Grade B (Minor language polishing)

Conclusion: Minor revision

Specific Comments to Authors:

1) Comments: The publication reports an interesting case of a bronchiogenic cyst in an unusual location becoming symptomatic by secondary infection complicating the diagnostic process. The Care Checklist was used to prepare the case report. The Abstract is concise and reflects a typical clinical course.

Response:

Thank you again.

2) Comments: Keywords could be more meaningfull "chest wall", "skin", and "biopsy" are very general terms. More precise terms, for exampe "Neuroenteric cyst" or "dermal cyst", "chest wall infection" or "benign chest wall lesion" would be more precise.

Response:

Yes, you are right. Now, the keywords of this manuscript have been changed according to your suggestion (Line 35-36).

3) Comments: Introduction: Bronchiogenic cysts may occur in more areas and organs than reported here (for example spine, thyroid gland etc). They need not all to be mentioned but a hint like "and in others" would be appropriate.

Response:

Thank you again for your responsible attitude. The sentence had been changed to "..., and in other areas" (Line 53-54).

4) Comments: What is meant by the "separation"?

Response:

We are sorry for the mistake. The wrong word "separation" had been replaced with the right word "mediastinum" (Line 53).

5) Comments: In Line 57/58 it is reported that the incidence in females is much higher than in males (which is widely accepted), but in the Discussion a publication

by Shah is referenced, reporting a case series og 86 bronchiogenic cysts of which 74% were in male patients. What is or could be the explanation for this contradictory finding? This could be discussed in the Discusion part.

Response:

Dear reviewer, thank you for your responsible attitude, and we are sorry for this mistake. We carefully checked the content of the cited literature. As you said, the incidence of males is higher than that of females. We made a mistake when we wrote it. Thank you for helping us point it out. We are so ashamed of such an error (Line 55).

6) **Comments:** It would be beneficial to mention the usual histopathological findings of bronchogenic cysts (Type A or B) and the natural clinical course to point out what was different in this case (i.e. 60 years of absence of symptoms, the cyst becoming only sympotmatic because of the infection).

Response:

It is a valuable suggestion. We found that the interstitial structure was partially infested with inflammatory cells, which were not reported in the usual histopathological findings of bronchogenic cysts. Corresponding sentences had been added to Line 105-107.

7) Comments: Case Presentation: Line 92-93: obvious abnormalities oft he skin were absent, but the text mentions dermal symptoms including secretion (for example Line182-183). This is contradictory.

Response:

Thank you for helping us point it out. The corresponding sentence had been changed to "Except for secretion in the skin around the swelling, no other obvious abnormalities were found..." (Lin 88-89).

8) Comments: The ultrasound findings could be given in more detail. Thex are mentioned in the picture texts, but the size of the lesion (only 8-9 mm thick) might be the explanation of why it was not causing an symptoms before. In Picture A there seems to be a capsule, which is not depicted in Picture B as clearly. What could be the explanation for that? Bronchiogenic cysts may have a gelatinous content showing giving more echo signals in sonography, especially when infected. In contrast the pictures show a homogenous content with fairly low echo intensitiy.

Response:

You are great. You did a good job explaining why the patient was asymptomatic in another aspect that we didn't notice, and we agree with your opinion. At the same time, we offered another two ultrasound images (Figures 2C and D). In Figure 2A, there seems to be a capsule (September 24, 2020). While in Figure 2B, no intact

envelope was found (July 20, 2021). As shown in Figure 2C, most of the cyst borders did not resemble the smooth walls of typical cysts, and the cyst appeared as a frizzy capsule instead. Echoes of the smooth wall can be seen in a few areas. The inside of the cyst showed a relatively homogeneous low echo, and a small amount of oxalate calcification was found in some areas. The inflammation was mainly manifested in the cyst wall (Figure 2D). So, maybe it is the reason why no intact envelope was found in Figure 2B (Line 262-275).

9) Comments: In Line 106 it says "pathological diagnosis was made based on the obtained specimen" (probably cytological examination is meant), but in the abstract it is mentioned, the diagnosis was only possible after resection and complete histological workup. So there is a contradiction needing to be resolved.

Response:

Sorry for our unclear description. The pathological diagnosis was made based on the obtained tissue specimen. As you suggested, I have revised the sentence to make the meaning more accurate (Line 104).

10) **Comments:** Were there differences in the cytological and histopathological findings/diagnoses?

Response:

The focus of the two methods is different. The cytological results showed many acute inflammatory cells. The result prompted us to consider the possibility of infection. The histopathological findings showed column-like cilia epithelial cells, which had the same structure as the bronchus. At the same time, we also found that the interstitial structure was partially infested with inflammatory cells. Combined with these results together, we diagnosed the disease as a bronchial cyst with infection.

11) Comments: There sems to have been a single cyst, the text mentions multiple cysts for example in Line 27 or 107, that should be corrected.

Response:

Dear reviewer, you are right. Only a single such cyst in the patient was present. The misleading words have been corrected (Line 27 and 109).

12) Comments: Lines 107 to 109: Not the structure oft the inflammatory cells, but oft he column-like cells was typical for bronchial epithelium. This should be made clearer. Maybe more details oft he histopathologic findings would be helpful there.

Response:

Yes, it's a vital suggestion. The sentences have been revised according to your advice (Line 105-107).

13) **Comments:** What was the composition of the inflammatory cells? Were they more indicative for chronic infection or of an acute infection?

Response:

Dear reviewer, these inflammatory cells included a high number of neutrophils, a moderate amount of lymphocytes, and a tiny number of histiocytes. So we consider this an acute infection.

14) Comments: Discussion: The absence of clinical symptomoms may not only be due to the location but also to the limited size of the cyst. The absence of an preoperative diagnosis in this case is not unusual, as the patient presented with clinical symptoms of an abscedating chest wall infection, confirmed by putrid secretion. In the absence of a fistula a surgical resection would be the treatment of choice anyway and additional examinations and tests would only have postponed treatment further. This is mentioned by the authors correctly in line 180-182.

Response:

Thank you for your time again. You did a good job explaining why the patient was asymptomatic in another aspect that we didn't notice, and we agree with your opinion.

15) **Comments:** What genetic or metabolic markers have the authors in mind (Line 173) to identify the cyst preoperatively?

Response:

Dear reviewer, honestly, we don't have a good idea of specific genetic or metabolic markers to identify the cyst preoperatively. But we really expect that such markers will be available to identify the cyst preoperatively in the near future. This strategy cannot only improve the doctor's confidence in diagnosis but also enable the patients to understand the disease in detail.

16) **Comments:** Lines 187-191 give a little more detail to the surgical approach with a primary debridement, open wound treatment and secondary wound closure. This should be part of the Case Presentation. The Discussion may reflect on this, when considering alternative ways of treatment.

Response:

What a valuable suggestion! We agree with your opinion, and the detailed information on the surgical approach has been added to the corresponding section (Line 113-120).

17) **Comments:** All in all this case report is worth publishing. It would profit from some minor work to solve contradictory passages and to give more details about the histology and possible treatment alternatives.

Response:

Dear reviewer, thank you again for your time.

Reviewer #2:

Dear reviewer #2, tremendous gratitude for your comments on this manuscript, and the suggestions were especially beneficial to our work. Lots of thanks!

Scientific Quality: Grade C (Good)

Language Quality: Grade B (Minor language polishing)

Conclusion: Minor revision

Specific Comments to Authors:

1) Comments: punctuation grammar, need to check

Response:

Dear reviewer, thank you again for your time and consideration. We have sent our revised manuscript to a professional English language editing company to polish the manuscript further. We also provide a new language certificate along with the manuscript. Thank you again.

2) Comments: Line 90, why you didn't depend on the MRI for detecting the cyst?

Response:

Dear reviewer, you really raise a very excellent issue. In the process of communicating with the patient, I mentioned that MRI could be used for further diagnosis. However, there are two reasons why we did not use MRI detection: 1. The detection time was too long, and the patient did not want to wait. Take our hospital as an example. If a patient needs an MRI test, they need to make an appointment in advance. So, it usually takes five days from the appointment to the end of the examination. 2. An MRI costs about six times the cost of an ultrasound.

3) Comments: Line 94-96 In the cytological puncture, many acute inflammatory cells were found, how CBC was normal?

Response:

Dear reviewer, thank you for your responsible attitude again. In the cytological puncture, many acute inflammatory cells were found, and this is local inflammation without developing symptoms of systemic infection. So, the patient's CBC is in the normal range.

4) Comments: try to make a table for the previous case report and compare with your result

Response:

Thank you for your valuable suggestion. We have tried our best to make a table (Supplementary Table 1) for the previous case report. We have selected sixteen cases

of chest wall cutaneous bronchial cysts. Among them, two patients were accompanied by infection. And we also compared our results. Corresponding sentences had been added to the last paragraph of the Discussion section (Line 179-189).

5) Comments: Line 2. A Case report

Response:

Dear reviewer, the word had been changed (Line 1).

6) Comments: Line 6. The trachea.

Response:

Thank you for helping us point it out. The word "the" had been added (Line 17).

7) Comments: Line 92. Change to (an)

Response:

The word had been revised according to your suggestion (Line 94).

8) Comments: Line 43. Delete in

Response:

As you suggested, the word had been deleted (Line 46).

Many thanks for your consideration!