Peer Review File
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Review Comments

Reviewer A

This is a nice case but I do not see anything usual in it's diagnosis and treatment.
Such case would be more appropriate for a pathological journal.
We would like to thank the reviewer for the valuable feedback of our work. We would like to thank the reviewer for the hint and transferred the case report to the AME Medical Journal for publication.

Reviewer B

I appreciate your very valuable case report and read it with great interest.
This case report is a description of an 84-year-old woman who had dyspnea, edema of the lower legs, and weight loss, and during a medical examination, an anterior mediastinal tumor was found on CT scan. The anterior mediastinal tumor was an extremely rare tumor called Angiofibrolipoma.

We would like to thank the reviewer for this kind judgment of our work.

Comments:

1) Pathology images should be shown. The results of immunostaining should be shown.
We appreciate the constructive feedback and have included the pathology images, adding significant depth to the case report. Regarding the immunostaining, we regret to inform that in this specific case, no immunostaining was performed. We hope that the provided pathological images still offer valuable insights.

2) What was the cause of the pleural effusion?
We would like to thank the attentive reviewer for asking this clinically important question. We have therefore addressed this issue in the discussion section of our paper. The presence of the pleural effusion was an important clinical finding in this case. While the exact cause of the effusion could not be definitively determined based on the findings and diagnostic procedures, we discussed several possible explanations. We have modified our text as advised (please see Page 12, line 291-301)

3) Has the patient's dyspnea, leg edema, and weight loss improved after the tumor resection?

We would like to thank the reviewer for this sophisticated question. Yes, the patient's dyspnea improved after the tumor resection. In the follow-up conducted approximately 2 months after discharge the patient presented herself free of symptoms, in good general condition, and without relevant dyspnea or signs of infection. While mild lower limb edema persisted, there was no information provided regarding further weight loss. We hope this clarifies the outcome of the patient's symptoms after the tumor resection.
We added a section in our text (please see Page 9, line 215-217)

4) Describe the observation period after resection and prognosis.

We would like to thank the reviewer for this important question. The observation period after

resection and prognosis were included in the paper now. We mentioned that based on the current knowledge and a completely resected benign tumor, the prognosis is generally favorable in terms of local recurrence or dissemination. As such, there is no indication for additional follow-up at this time. While some authors recommend long-term follow-up in cases where complete resection posed difficulties in anatomically challenging regions, our case does not show evidence of infiltrative growth patterns.
We have modified our text as suggested. (please see Page 14, line 357-362)

5) What are your thoughts on complications, dissemination and large vessel injury?
We would like to thank the reviewer for this question. We stated that complications during surgical removal pose not a high risk in the hands of an experienced surgeon, including bleeding, injury to surrounding tissues, major blood vessels, and infection. Additionally, the risk of tumor spread to surrounding tissues or organs is generally low, as Angiofibrolipomas are typically well-defined tumors with limited aggressive behavior.
We have modified our text as suggested (please see Page 13-14, line 338-356)

It is recommended to consider and correct the above, not just that it was resected and the pathological diagnosis was rare.
We sincerely appreciate the reviewer's thorough evaluation of our case report and their valuable comments. We have carefully considered each of the points raised and have made the necessary revisions to address the mentioned aspects.

Regarding this statement, we want to assure the reviewer that we have taken their feedback seriously, and we have made comprehensive changes to the manuscript accordingly. We have included pathology images, discussed the cause of the pleural effusion, provided information on the patient's postoperative symptoms and prognosis, and shared our thoughts on complications, dissemination, and large vessel injury. We believe these additions have significantly enriched the content of the case report.

We thank the reviewer for their valuable input, which has contributed to the overall improvement of our manuscript. We hope that the revisions now fulfill the reviewer's expectations and provide a more thorough and informative case report on this extremely rare tumor, Angiofibrolipoma, in the anterior mediastinum.

Reviewer C

The article is a case report of an anterior mediastinal tumor, angiofibrolipoma. This report is a rare case, and the manuscript deserves acceptance. However, the following points need major revision.
We would like to thank the reviewer for the kind judgement.

In line 17, "anterior" should be corrected for "posterior."
We would like to thank the reviewer for the hint and corrected it.
The revised formulation is now evident (please see Page 2, line 29-30)

In line 90, the phrase "A triportal video-assisted thoracoscopic mediastinal tumor resection was performed" is found. In which intercostal space was the device and thoracoscope inserted? I think this is essential information for a general thoracic surgeon. Please describe in more detail.
We would like to thank the reviewer for this kind hint. The details of the operation were now described. The procedure involved accessing the chest through three incisions. The first

incision was made in the 5th intercostal space along the mid-axillary line, which served for camera inspection, aspiration of the effusion, and dissection of adhesions between the lung and parietal pleura. Additionally, two more incisions were made in the 7th intercostal space along the anterior and posterior axillary lines to access the anterior mediastinum and perform the tumor resection. The tumor was carefully prepared and extensive adhesions to the chest wall had to be loosened. It was also in direct relation to the left internal thoracic artery, which required ligation before complete removal. Finally, the tumor was retrieved from the thoracic cavity using a specimen retrieval bag through the incision made in the 5th intercostal space. Due to the limited word count, we provided a concise description of the surgical approach, and we believe this information is relevant for a general thoracic surgeon. We added this information our text. (please see Page 7, line 180-184)

It is critical that readers can not find any histology in the manuscript, and the histological findings should convince the reviewers and readers that the microscopic result is consistent with angiofibrolipoma.

We would like to thank the reviewer for this important advice and included a detailed histological description to confirm the consistency of the microscopic result with angiofibrolipoma. We also added figures with the histological sections (figure 3).

In Figure 1, a CE-CT of the lung window setting was depicted. Why did the authors present a CT of that setting in this paper? For the reader's and reviewer's adequate understanding, CE-CT of the mediastinal window setting is more advantageous than that of the lung window setting.

We would like to thank the reviewer for this advice. Indeed a CE-CT of the mediastinal window is more suitable. We will include a CE-CT of the mediastinal window for better understanding in the revised version.

The authors state that this report is the first case of angiofibrolipoma in the anterior mediastinum. What are the literature search systems (Medline, Pubmed, etc.) and search formulas for your search? Please mention it.

We conducted a systemic literature review searching the database PubMed and Google Scholar. The search term used in PubMed included the keywords "Angiofibrolipoma" AND "Mediastinum" in both the Text Word and Title/Abstract fields. In Google Scholar, we used the terms "Angiofibrolipoma" + "Mediastinum" for the search.

Changes in the text: These details are now briefly described (see Page 9, line 219-221)

If the anterior mediastinal tumor is suspected, tumor markers (IL-2R, SCC, AFP, beta-HCG) would be helpful for preoperative diagnosis. I am concerned about these values.

We would like to thank the reviewer for this important question. In this case, the assessment of tumor markers, including CEA, NSE, and CYFRA 21-1, revealed values within the normal range. However, we acknowledge that specific tumor markers such as IL-2R, SCC, AFP, and beta-HCG were not examined in this particular case. We did not include this in our workup and measure AFP and ß-HCG not routinely in female patients. To our knowledge are malignant germ cell tumors almost exclusively seen in males and we therefore we did not prioritize the measurement of these markers. Additionally the CT scan showed no evidence or sign of sarcoidosis, therefore we saw no reason to determine the IL2-R.

We have modified our text. (please see Page 7, line 137-140).

Reviewer D

The authors describe a case of an angiofibrolipoma occurring in the prevascular mediastinum. Although this is a rare occurrence, not many new elements are presented besides histology. The introduction and discussion are rather general not focussing on specific types of lipomas in the prevasular mediastinum.

information, particularly concerning angiofibrolipoma in the prevascular mediastinum, as well as relevant differential diagnoses and treatment considerations. We believe that these revisions have significantly improved the manuscript and made it more in line with the expectations for a case report.

Other remaining points:
- highlight box: "What is known and what is new?": all thymomas are considered to be malignant (even type A thymomas) and not benign
The reviewer is right and we made some changes. The "highlight box" has been appropriately updated. We clarified that all thymomas are considered malignant, including type A thymomas, and not benign.
we have modified our text as advised (please see Page 3, *highlight box - What is known and what is new?)*

- lines 170-171: biopsies in operable tumors are not current practice as the capsule may be broken resulting in locoregional dissemination of malignant cells; the rationale for the 2 punctures is not clear and they did not contribute to diagnosis!
We would like to thank the reviewer for this hint. We completely agree with this point, and we appreciate the understanding of the decision-making process in this case. The decision to perform biopsies and subsequent surgical resection was indeed discussed during multiple interdisciplinary tumor conferences. Our primary aim was to obtain histological confirmation for an accurate diagnosis, considering the complexity and rarity of mediastinal tumors and the diverse treatment options available. We acknowledge that alternative non-invasive diagnostic methods, such as MRI or PET-CT, could have been considered. However, due to specific reasons mentioned in the manuscript, these methods were not fully utilized.

Ultimately, the final decision took into account the patient's overall health status and carefully weighed the risks and benefits of various treatment options, especially considering the patient's age and increased surgical risk. Your feedback has been immensely valuable, and we are committed to improving the manuscript based on your suggestions. If you have any further recommendations or queries, we would be grateful to hear them. Thank you for your kind consideration and valuable input.

- current anatomical term for anterior mediastinum is prevascular mediastinum (according to ITMIG - International Thymic Malignancies Interest Group - definition)
We would like to thank the reviewer for this clarification. We have now incorporated a statement at the beginning of the paper to address the use of anatomical terminology. We state that while the term "anterior Mediastinum" is widely used and familiar in the medical literature, it is important to acknowledge that the ITMIG has introduced the term "prevascular Mediastinum" as a more precise anatomical designation for this region.

By including this statement, we aim to provide transparency to our readers and reviewers regarding the terminology used in the paper and the awareness of the ITMIG's definition. This approach allows us to maintain the familiarity of the commonly used term while

acknowledging the significance of the precise anatomical description put forth by the ITMIG.

We thank the reviewer for the valuable input.
We adapted our text as suggested (please see Page 4, line 68-69)

- pathological differentiation from other similar tumors as thymolipoma is not described or discussed (there is also no picture of pathological findings)
We would like to thank the reviewer for this hint. We have now included a brief discussion of the pathological differentiation in the discussion section of the paper. However, it is important to note that as non-pathologists, we rely on the expertise of our pathologist for the accurate diagnosis. While we acknowledge the importance of discussing differential diagnoses, we must also consider the limitations of word count in a case report. Our main focus was on the surgical aspects of the case.
We adapted our text as suggested (please see Page 11-12, line 274 - 290)