

Peer Review File

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Reviewer A

Comment 1: The authors present an interesting case of a rare mediastinal tumour. The intraoperative picture is particularly impressive. However, I wonder how the value of this report goes beyond just basic interest.

Reply 1: In the previous literature, mediastinal hemangioma was resected by traditional thoracotomy, while VATS technique was rarely reported. We wanted to prove that VATS surgical resection is safe and reliable for mediastinal hemangioma through this case report, and the safety of VATS will not be decreased due to the different anatomical location in the mediastinal hemangioma.

Changes in the text: we have modified our text as advised (see Page 9; line170-173)

Comment 2: The authors reference a case series of 18 of these tumours, 8 of which were resected by VATS. What does this case add to our understanding beyond this larger series? Were there unique features here that readers can learn from, or things the authors learned from this experience that have not been previously understood?

Reply 2: This article included 18 cases of mediastinal hemangioma for analysis, with many cases and more convincing findings. The value of this article lies in the comparison of thoracoscopic and thoracotomy procedures in the surgical treatment of mediastinal hemangioma, demonstrating the safety and reliability of VATS procedures in the surgical treatment of mediastinal hemangioma, consistent with our conclusions. In addition, we obtained the following information from this citation: none of these 18 patients showed recurrence after surgery, and one patient underwent only partial resection of the hemangioma because the hemangioma was too large. This patient also did not experience recurrence, which led us to understand that mediastinal hemangioma is a tumor with few recurrences and increases our confidence in dealing with such diseases.

Changes in the text2: we have modified our text as advised (see Page 9, line 170-173)-we add a sentence: This retrospective study confirms that the VATS technique is safe and reliable for performing surgical procedures for mediastinal haemangioma, enabling complete resection and reduces postoperative complications.

Comments 3: In addition, there are numerous spelling and grammatical errors throughout, which make the writing difficult to understand in places. I would recommend a thorough edit for language.

Reply 3: We have thoroughly reviewed and edited the language of the manuscript, removing grammatical and spelling errors, and we have sent the article to the polishing agency (AJE Editing) for review and language polishing, and revised the

spelling, grammar, and format according to the agency's comments.
Changes in the text: we have modified our text as advised.

Comments 4: Several aspects of the case itself are unclear as well. Can the authors clarify what is meant by "CT for physical examination"? There is some mention of the MRI characteristics, but was MRI performed in this case? Why did the patient stay in for 4 days after an uncomplicated VATS?

Reply 4: "CT for physical examination" is a misrepresentation. We have corrected this sentence as "underwent chest computed tomography (CT) during a routine checkup". Patient unable to undergo MRI due to the internal fixation in right calcaneus. Although there were no complications, the tumor size was large, more tissue was surgically removed, and we lacked relevant clinical experience in the perioperative management of mediastinal hemangioma, so we appropriately prolong the patient's hospital stay for recovery.

Changes in the text: we have modified our text as advised (see page4, line55-56; see page4,line65-66; see page4,line83-85).

Comments 5: We would benefit from some more informative images from the CT scan. In particular, the authors mention that the feeding artery and vein could be identified on CT-it would be very useful to include these images. The CT image provided is not very useful.

Reply 5: Thank you very much for your valuable comments, we have made major modifications to Figure1, replaced one figure with three group figures in Figure 1, and marked the vessels of the tumor in CT images.

Changes in the text: we have modified our text as advised (see Figure 1)

Comments 6: The authors recommend that "immunohistochemical assessment should be performed" when the diagnosis is uncertain. This implies that preoperative biopsy should be performed, which I assume would be very unsafe in these cases. This needs to be clarified.

Reply6: Thank you very much for your valuable comments. Our statement is wrong and needs correction. We do not recommend preoperative puncture. Immunohistochemistry here is for surgical specimens after surgery.

Changes in the text: we add a sentence to the article: The most reliable practice is to perform surgical resection and obtain pathological specimens. Because there are many vessels in mediastinal hemangiomas and some tumors are located in the posterior mediastinum or next to the great arteries, preoperative biopsy is not recommended, which increases the risk of bleeding and other complications. (See page8, line 149-152)

Comments 7: Is there any evidence or recommendation on the need for surveillance if these tumours are benign? What is the risk of recurrence, and should this be followed with imaging, or at all?

Reply 7: Although mediastinal hemangiomas are mostly benign and have a very

low probability of recurrence, there is no corresponding research evidence or guidelines indicating whether mediastinal hemangiomas need to be monitored. The risk of recurrence is mainly related to the pathological malignancy of the tumor and whether the operation is completely resected. We recommend that patients with mediastinal hemangioma undergo CT after surgery to prevent tumor recurrence, but more studies are still needed.

Changes in the text: we have modified our text as advised (see page10, line181-183)

Reviewer B

Comments 1: P.2; L.54-55: I find this paragraph unnecessary in the introduction:“This manuscript is written following CARE reporting checklist. We present the following case in accordance with the CARE reporting checklist”

Reply 1: Follow your advice and delete these sentences.

Changes in the text: We have modified our text as advised (see page3,line53)

Comments 2: P.2; L.59:“He had no other past medical history.”is redundant with P.2, L.60-61: Patient was previously healthy and had no history of chronic or genetic disease.

Reply 2: The expression here is ambiguous, and we have made corrections.

Changes in the text: We have modified our text as advised (see page4,line55-59)

Comments 3: P.2; L.67-68: The authors suspect that it is a hemangioma, but are not sure; they must make a differential diagnosis.

Reply 3: Thank you very much for your valuable comments, we have made modifications in the article: “Mediastinal hemangiomas need to be differentiated from mediastinal cysts, neurogenic tumors, teratomas, and lymphomas.”

Changes in the text: We have modified our text as advised(see page4,line67-68)

Comments 4: P.3; L.103: Do the authors consider a chest CT scan indicated for a calcaneus fracture?

Reply 4: This sentence is not suitable, and we re-illustrate it in the "case description" section.

Changes in the text: we have modified our text as advised (see page4,line55-58)

Comments 5: L.125-126: The authors state: “In this case, the feeding artery and drainage vein of the haemangioma were clearly visible by preoperative chest enhanced CT”; however, the CT figure they provide focuses on "uneven delayed enhancement shadows with multiple punctate calcifications". I believe that a CT image of these tributaries vessels could be more significant.

Reply 5: Thank you very much for your valuable comments, we have made major modifications to Figure1, replaced one figure with three group figures in Figure 1, and marked the vessels of the tumor in CT images.

Changes in the text: we have modified our text as advised (see Figure 1)

Comments 6: Did the authors consider performing a PET-CT?

Reply 6: This is a valuable question for us. In our opinion, as we describe in the article, mediastinal hemangiomas are difficult to diagnose by imaging examination and must be diagnosed by pathological examination. Besides, mediastinal hemangiomas are mostly benign tumors with a low risk of recurrence and metastasis, so PET-CT is not recommended as a routine examination in all patients unless there is a clear basis for malignancy or a high-risk factor for malignancy.

Changes in the text: we have modified our text as advised (see Page8,line136-138)

Comments 7: P.4; L.147-148:“The traditional surgical approach uses posterolateral or midline incision thoracotomy”. In a case of involvement of the anterior mediastinum such as this, don't the authors believe that a sternotomy could also be indicated?

Reply 7: The technique should be indicated in the sentence.

Changes in the text: We have modified our text as advised (see Page8;line156-157)

Comments 8: The authors excessively repeat the expression "in addition".

Reply 8: Thank you very much for your valuable comments and we have made synonymous substitutions for duplicates.

Changes in the text: We have modified our text as advised (see Page7,line115; page7, line132)

Comments 9: The text contains some spelling errors. Some bibliographical references do not conform to the standards of the publication.

Reply 9: We have thoroughly reviewed and edited the language of the manuscript, removing grammatical and spelling errors, and we have sent the article to the polishing agency (AJE Editing) for review and language polishing, and revised the spelling, grammar, and format according to the agency's comments.

Changes in the text: We have modified our text as advised.

Reviewer C

Comments 1: Line 32: Patient recovered well and was discharged; he has since had no recurrences and continues to be closely followed outpatient.

Reply 1: Logic and spelling errors appear in this sentence, and follow your advice to correct this sentence and ensure that it does not bring misunderstanding to readers.

Changes in the text: Patient recovered well and was discharged; he has since had no recurrences and continues to be closely followed outpatient (see Page2,line33-34)

Comments 2: Line 34: Remove “from this case and some literature;” imaging does

not need capital I.

Reply 2: Follow your advice to correct the word.

Changes in the text: We have modified our text as advised (see Page2, line36-37)

Comments 3: Line 51: "Given its nonspecific..." should be a separate sentence.

Reply 3: Follow your advice and correct the sentence.

Changes in the text: We have modified our text as advised (see Page 4, line 51)

Comments 4: Line 58: Why did the patient undergo routine CT scan imaging?

Reply 4: "CT for physical examination" is a misrepresentation. We have correct this sentence as "underwent chest computed tomography(CT) during a routine check up".

Changes in the text: We have modified our text as advised (see page4, line56-59)

Comments 5: Line 64: recommend "the upper border of the tumor was from the sternal angle and the inferior border of the tumor was at the aortic outflow..."

Reply 5: Follow your advice and correct the sentence.

Changes in the text: We have modified our text as advised (see page4, line63-64)

Comments 6: Line 69: "After the patient had general anesthesia induced and a double lumen endotracheal tube was placed, we introduced a thoracoscope..."

Reply 6: Follow your advice and correct the sentence.

Changes in the text: We have modified our text as advised (see page5, line71-73)

Comments 7: Line 72: third intercostal space (not spaces)

Reply 7: Follow your advice and correct the word.

Changes in the text: We have modified our text as advised (see page5, line74)

Comments 8: Line 74: we opened the mediastinal pleura...

Reply 8: Follow your advice and correct the sentence.

Changes in the text: We have modified our text as advised (see page4-5, line72-74)

Comments 9: Line 77: The superficial pericardial vessels were likely a source of vascular supply for the tumor and were carefully dissected away.

Reply 9: Follow your advice and correct the sentence.

Changes in the text: We have modified our text as advised (see page5, line75-76).

Comments 10: Line 82: "The patient recovered without postoperative complications and was discharged post-operative day four."

Reply 10: Follow your advice and correct the sentence.

Changes in the text: We have modified our text as advised (see page5, line85-85).

Comments 11: Line 84: what frequency interval is the patient being observed and

with what imaging?

Reply 11: One month later after discharge, the patient received the first review. After that, the frequency interval of Follow-up is half year.

Changes in the text: We have modified our text as advised (see page5, line85-86).

Comments 12: Line 82:“fewer than 100 cases”

Reply 12: Follow your advice and correct the sentence.

Changes in the text: We have modified our text as advised (see page6, line93).