Peer Review File

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Reviewer A

Comment 1: Discussion should be shortened.

Reply 1: I have modified, but could shorten the is not very ideal.

Changes in the text: See discussion

Reviewer B

a) major

Comment 1: Please present a contrast-enhanced CT prior to treatment. This plane CT shows extensive contact with the chest wall and adhesion to the chest wall is to be expected, but there is no obvious rib involvement and initial surgical removal seems feasible. I am curious how you explained this to the patient. To avoid possible misinterpretation by the reader, I recommend revising the following description "We advised the patient to have surgery, but when she learned that it would be difficult to completely remove the tumor due to the large size of the tumor and its close proximity to the pleura and chest wall as seen on CT, she decided against surgery for the time being." As a result, the patient's tumor shrank after immunotherapy, and she was able to undergo surgery. I'm very happy about that.

Reply 1: Plain CT revealed significant contact with the expectedly adherent chest wall, and enhanced CT revealed no discernible rib involvement, hence we advised surgical intervention for the patient. However, after knowing that surgery could result in a wide range of chest wall resections, varying degrees of chest wall adhesion, was complicated, and had a higher likelihood of requiring a thoracotomy, the patient made the decision to postpone surgery. Tumor volume gradually shrunk in patients receiving immunological treatment. As the patient's confidence in their capacity to recover rose, so did their desire for surgery. It has been modified. However, due to limited space, enhanced CT images were not included in the original text. (Figure 1)

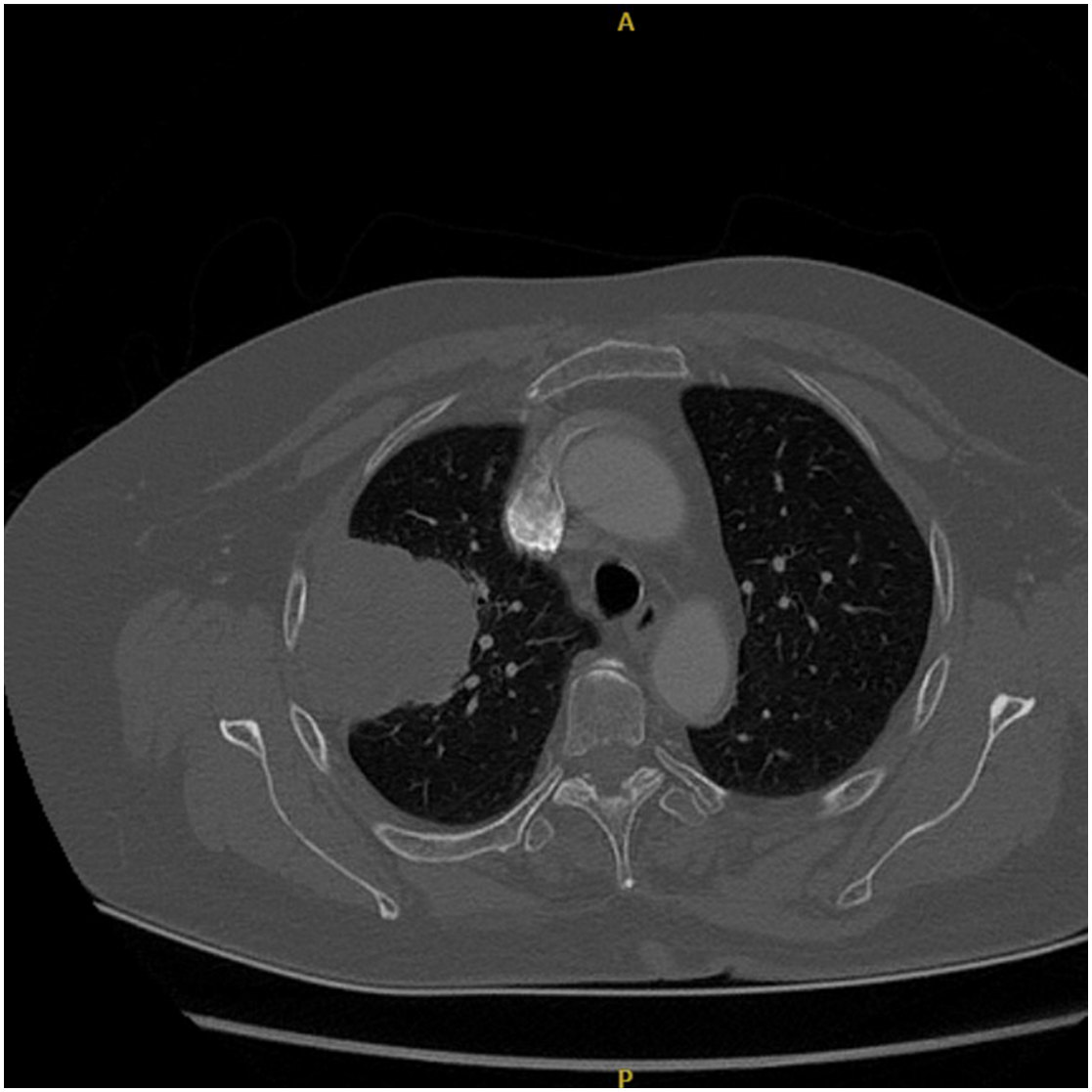

Figure 1. Enhanced CT revealed no discernible rib involvement

Changes in the text: Page 3, Line 60-65. Page 4, Line 79-83.

Comment 2: Since the Discussion section is primarily a literature review, please add your thoughts on the treatment of this case. What strategy would you use in a similar case? Would you prioritize immunotherapy as in this case?

Reply 2: In our case report, we present the first instance of surgically treated PMML following PD-1 treatment. In addition, pd-1 immunotherapy has been shown to be successful in treating PMML. However in order to substantiate only a few case reports, there must be several clinical trials. In our opinion, surgery is still the best option for treating resectable PMML. Patients who have tumors that are too large, difficult to remove cleanly, and who lack a strong desire for surgery may benefit first from

immunotherapy for PD-1. In our study, after three rounds of immunotherapy, a sizable tumor reduction was seen.

There is no question that the majority of the therapeutic methods currently available for PMML are derived from cutaneous melanoma therapies, even though the outcomes vary from treatment to treatment. Our case report enables physicians to provide a new therapeutic idea for the treatment of rare PMML and to properly balance the risks.

Changes in the text: Page 13, Line 194-196. Page 14, Line 197-203.

Comment 3: Why did you choose sindilizumab instead of nivolumab? Have you considered the use of ipilimumab in combination?

Reply 3: Due to the high cost of nivolumab. Nivolumab is not covered by China Healthcare Security, and a 100mg/10ml dose costs 9260 yuan. The cost each month for this patient, who weighs 60 kg, and takes the recommended dosage of 3 mg/kg intravenously once every two weeks, is 36,884 yuan. Sindilizumab (100 mg/10 ml) costs 1,080 yuan. A year's worth of medication at the recommended dosage of 200 mg every three weeks will cost 36,720 yuan. Sindilizumab to enter China Healthcare Security, which is based on 70% of healthcare, pays 11016 Yuan a year, every time 648 Yuan. Due to cost, the patient chose sindilizumab. Yervoy is not yet available in China, so a combination with Yervoy is not under consideration.

Changes in the text: Page 3, Line 70. Page 4, Line 71-73.

Comment 4: Do you measure the programmed cell death ligand 1 tumor proportion score (PD-L1 TPS)? Any information on PD-L1 status would be helpful for the reader's understanding. Also, what about 5-S-CD, a tumor marker for malignant melanoma? Other markers that are not elevated and that have no association with melanoma may not be necessary.

Reply 4: The pathology department at our hospital did not perform PD-L1 TPS on this patient in 2020. The clinical laboratory did not perform the standard 5-s-cd test.

Changes in the text: None

b) major

Comment 1: Where is the biopsy site: CT-guided biopsy?

Reply 1: The patient was positioned in the left lateral position, and a normal chest CT scan revealed the lesion was in the upper right position, measuring around 50mm×52mm. This was the precise method for a CT-guided percutaneous lung biopsy. The body surface entry point was chosen and marked after measuring the distance between the lesion and the chest wall and the puncture angle. The needle was put outside the parietal pleura following customary skin cleaning and local anesthetic, and a CT scan revealed that the needle's direction was congruent with the intended route of the biopsy. The biopsy gun was then inserted after the core of the needle had been removed from the lesion. Put the bandage on. The original article has been revised to the full name: CT-guided percutaneous lung biopsy.

Changes in the text: Page 1, Line 23.

Comment 2: In the Abstract session, the authors state "Since there are no standards for the diagnosis and treatment of primary malignant melanoma of the lung, it is treated differently. However, please change primary malignant melanoma of the lung to PMML, since the abbreviation is defined as PMML in the previous sentence.

Reply 2: Modified

Changes in the text: Page 1, Line 17.

Comment 3: Page 1, line 15 Put a period in the sentence as follows. " Compared to cutaneous melanoma, mucosal melanoma has a different biology and clinical appearance. ”

Reply 3: Modified

Changes in the text: Page 1, Line 17.

Comment 4: Please reconsider the title. For example, how about "Right upper lobectomy after immunotherapy for primary melanoma of the lung: a case report and literature review"?

Reply4: Modified

Changes in the text: Page 1, Line 2-3.

Comment 5: In the abstract session, since the case description gives details, I think it is preferable to describe the case briefly in the background, as in "We reported a patient

with pulmonary primary melanoma underwent surgery after PD-1 immunotherapy. "

Reply5: Modified

Changes in the text: Page 1, Line 18-19.

Comment 6: Please do not omit the first PD-1 that appears in the text. Spell it out.

Reply6: Modified

Changes in the text: Page 1, Line 18.

Comment 7: The keyword "lung cancer" is not necessary because it is irrelevant to this case.

Reply7: Modified

Changes in the text: Page 2, Line 31.

Comment 8: Page 2, lines 48-49 Insert NSE as an abbreviation in the sentence as follows. " According to laboratory testing, neuron-specific enolase (NSE) was 31.5 ug/L, which was greater than the standard value of 17 ug/L. ”

Reply 8: Modified

Changes in the text: **Page 3, Line 49.**

Comment 9: Page 10, lines 119-120 The author states "PMML has a 60 (51.25-68) year median age, with 47 instances being male (3). ". What does (51.25-68) mean? I don't know how much percentage is in the 47 examples. Gender is easier to understand as a percentage.

Reply 9: (51.25-68) is the range of 76 patients' ages that were reported in this review, as stated in quotation 3. 47 fingers the 76 patients included 47 men. This article is dubious. Modified: In a review, 76 PMML patients with a median age of 60 (IQR: 51.25-68) years old, 61.84% of them were men, were listed.

Changes in the text: Page 10, Line 125-126.

Comment 10: Please check the references cited in (11). The authors state that "Surgery is the primary line of treatment, with a broad incision preferable that extends at least 5 cm from the margin to the lesion. However, there is no mention of incision in (11)

Reply 10: In the quotation (11 “doi: 10.1097/MD.0000000000008772”), in the third part (discussion), the fifth paragraph, and the second sentence, the author mentioned the incision distance, but the author did not give the source of the quotation and did not

demonstrate it. Therefore, I have removed it for the sake of the rigor of the paper. Modified: The primary form of treatment is surgery. Although some surgically treated patients pass away from metastasis and recurrence within a year of surgery, evidence shows that only individuals with surgically removed PMML have a possibility of long-term survival.

Changes in the text: Page 12, Line 163-166.

Reviewer C

Comment 1: According to cutaneous melanoma therapy, Nivolumab is the first line, but the author selected Sindilizumab. What is Sindilizumab? I could not find the reason why the authors selected the anti-PD-1 drug from your manuscript. Please describe more clearly in the discussion part.

Reply 1: In China, nivolumab is pricey. In our hospital's pharmacy in 2020, Sindilizumab was the only medication related to pd-1. The patient asked to choose Sindilizumab for therapy after discussing the cost and indications of related medications with them.

Changes in the text: Page 3, Line 70. Page 4, Line 71-73.

Comment 2: Figure 6 may be HE staining of the specimen after immune therapy and resected. Please depict in the caption.

Reply 2: Modified

Changes in the text: Page 10, Line 119.

Comment 3: In line 175 of page 13, ‘t’ might be capitalized.

Reply3: Modified

Changes in the text: **Page 13, Line 180.**