## **Peer Review File**

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#### Round 1:

## Reviewer A

1. The authors report leukemia cutis in T-cell acute lymphoblastic leukemia. However, these data were quite preliminary, because the gene mutation analysis was not performed in this study.

Reply: We're sorry for missing the description on the gene mutation analysis. BCR-ABL fusion and MLL rearrangement was negative. In addition, a high CRLF2 expression and TERF2-Jak2 mutation were detected. We have added the description and discussion on gene mutation analysis in the manuscript.

Changes in the text: Please see Page 3, Lines 19-21 and Page 5, Lines 13-15.

2. Moreover, clinical data was not described in detail.

Reply: We have carefully checked the manuscript and added some clinical data. If there are any other modifications we could make, we would like very much to modify them and we really appreciate your help.

Changes in the text: Please see Page 3, Lines 3-5, 13-15 and 21.

#### Reviewer B

3. Interesting case, well written

Reply: We feel great thanks for your review work on our article.

### Round 2

## Reviewer A

1. Page 1, Line 27-29 abstract: "We report an uncommon case ---- high fever." run-on sentence. Consider revising.

Reply: We are grateful to reviewer 1 for reading our manuscript in such detail and for highlighting the grammatical errors. This sentence has been revised as "We report an uncommon case of T-cell acute lymphoblastic leukemia with leukemia cutis as the initial presentation. The patient was a 50-year-old woman who presented with multiple infiltrated purplish plaques and a high fever for more than 5 months."

Changes in the text: Please see Page 2, Lines 5-8.

2. Page 2, Line 8-11: Here, we report a case ---- allogeneic stem cell transplantation.

Reply: According to the comments of reviewer 1, the sentence has been revised as "Here, we report a case of a female patient with T-cell acute lymphoblastic leukemia (T-ALL) who presented with LC and was in excellent clinical condition during 3-year follow-up after treatment with chemotherapy and allogeneic stem cell transplantation."

Changes in the text: Please see Page 3, Lines 1-4.

3. Page 2, Line 17 should read: Accompanied by recurrent fevers and athralgias

Reply: "with" has been changed to "by".

Changes in the text: Please see Page 3, Line 10.

4. Page 2, Line 18: in not on

Reply: "on" has been changed to "in".

Changes in the text: Please see Page 3, Line 11.

5. Page 2, Line 33: large nuclei in most cells

Reply: This sentence has been revised as "Bone marrow smear indicated 85.5% abnormal lymphocytes, which were described as having dispersed chromatin, light blue-staining cytoplasm, and large nuclei in most cells."

Changes in the text: Please see Page 4, Lines 5-7.

6. Page 2, Line 33-35: "Flow cytometry showed these atypical cells express CD3, CD7, CD123, CD34, CD38, HLA-DR, CD9934 and do not express CD56 and CD16, as abnormal early T cells." This sentence does not make sense.

Reply: We intend to provide the results of Flow cytometry. The sentence has been revised and an image representative of the flow cytometry results has been added.

Changes in the text: Please see Page 4, Lines 7-9.

7. Page 2, Line 37: were should be are

Reply: "were" has been changed to "are".

Changes in the text: Please see Page 4, Line 11.

8. Page 3, Line 5: Subsequently, she achieved complete response and [has not had disease recurrence in 3 years.]

Reply: This sentence has been revised according to the comment from reviewer 1.

Changes in the text: Please see Page 5, Lines 3-4.

9. Page 3, Line 9: patients should not be capitalized

Reply: Capitalization has been corrected.

Changes in the text: Please see Page 5, Line 7.

10. Page 3, Line 17: present with a purple or red appearance

Reply: We have modified our text as advised.

Changes in the text: Please see Page 5, Line 15.

11. Page 3, Line 33: [which] most importantly express

Reply: "which" has been added.

Changes in the text: Please see Page 6, Line 12.

12. Page 3, Line 39-41: A recent study [from the United States has shown] that more than 80% of patients died within one year after diagnosis(11), and [another international study] has indicated that the median survival time of LC [is] 7.2 months.

Reply: We have modified our text as advised.

Changes in the text: Please see Page 6, Lines 19-20 and Page 7, Line 1.

13. Page 3, Line 41-42: [delete in addition] Elevated CRLF2 expression has also been [proven] to be associated [with poor outcomes] in children and adults(12).

Reply: We have modified our text as advised.

Changes in the text: Please see Page 7, Lines 2-3.

14. Page 4, Line 1: delete preliminary experiences, "in summary, leukemia cutis can be..."

Reply: "preliminary experiences" has been deleted.

Changes in the text: Please see Page 7, Lines 6-7.

15. Page 4, Line 5: "without obvious feelings"- what does this mean? Without induration? Without additional symptoms?

Reply: We feel sorry for unclear expression. "without obvious feelings" has been revised as "without additional symptoms".

Changes in the text: Please see Page 7, Lines 8-9.

### Reviewer B

1. The request I have from the authors is to upload an image representative of the flow cytometry results that confirm the diagnosis of T-ALL.

Reply: Thanks for providing constructive and beneficial comments. We have added an image representative of the flow cytometry results (Figure 3).

Changes in the text: Please see Page 4, Lines 7-9 and Figure 3.

## Round 3

### Reviewer A

1. One small change is to reconsider the word "was" in lines 6-8 (the patient was a 50-year-old woman). It is awkward wording and could be worded better.

Reply: Thanks for your suggestion. We have rewritten this sentence.

Changes in the text: Please see Page 2, Lines 12-14.

# **Reviewer B**

1.The authors have responded to my critiques and provided Flow cytometry images representative of the case.

Reply: Thanks for your feedback.