



## Response to the reviewer's comments

Dear editor/ editorial staff/reviewers,

Titled: Perivascular epithelioid cell tumors of the liver misdiagnosed as  
hepatocellular carcinoma: Three case reports and a literature review

Manuscript ID: 80311

Thanks for your careful reading, thoughtful comments, and constructive  
suggestions, which have been significant in improving the overall presentation of our  
manuscript.

We have carefully considered all comments from the reviewers and revised our  
manuscript accordingly. The manuscript has also been double-checked, and the typos  
and grammar errors we found have been corrected. The following section summarizes  
our responses to each of the reviewers' comments. We believe that our responses have  
well addressed all concerns from the reviewers. Accordingly, we hope that our revised  
manuscript can be accepted for publication.

### Reviewer Comments:

#### Reviewer 1

(1) Author should submit an english editing service certificate

**Response:** We appreciate your pointing out these problems in the manuscript. In  
order to meet the publication requirements, the manuscript was sent to “American  
Journal Experts” to have the language polished and the certificate obtained.

(2) This paper should be checked by an english editing service

**Response:** Thanks for pointing out this problem in the manuscript. The paper was checked by “American Journal Experts”, an outstanding global English language editing company.

## **Reviewer 2**

Major Concerns:

- (1) The Authors should state some perspectives on improving the accuracy of diagnoses for the hepatic PEComa.

**Response:** We appreciate your pointing out these problems in the manuscript. They are essential for improving the quality of our articles. The following steps have been taken to address these concerns. In the discussion section of the manuscript, on page 11, line 23 to page 12, line 1, we described the specific presentation of hepatic PEComa on imaging, which will help improve diagnostic accuracy. And on page 5, lines 16-18, we pointed out that the expression of HMB45 and Melan-A are the most important evidence for hepatic PEComa. Additionally, on page 12, last paragraph, we added the value of ultrasound imaging, fine needle aspiration cytology, and core biopsy in distinguishing hepatic PEComa from HCC. Taken together these methods will help clinicians to make a more accurate diagnosis of hepatic PEComa.

- (2) And the authors should provide a better description of the clinical and pathological features that characterize hepatic PEComa and how they deviate from features that are found in malignant lesions.

**Response:** Thanks for pointing out this problem in the manuscript. In the

introduction section of the manuscript, on page 5, lines 9 to 11, we added the clinical features of hepatic PEComa, as well as described the manifestations and characteristics of the malignant biological behavior of hepatic PEComa on page 5, lines 14 to 16. The pathological features of hepatic PEComa in three cases were then described on page 9, respectively, and finally the clinical features of hepatic PEComa were again summarized in the discussion section on page 11, lines 3-5, and the histopathological features of hepatic PEComa were added on page 11, lines 12-15 features, as well as distinguishing them from HCC.

**Minor Criticisms:**

- (3) The authors should inform the all three patients and provide the signed Informed Consent.

**Response:** Please accept our apologies for this mistake that should not have occurred. We have uploaded informed consent forms for all patients.

- (4) Introduction 2. Page 2, line 2, it should read "...neoplasms (PEComas) are mesenchymal tumors..."

**Response:** Thanks for pointing out this problem in the manuscript. This sentence has been revised "The perivascular epithelioid cell neoplasms (PEComas) are mesenchymal tumors with the histological and immunophenotypic characteristics of perivascular epithelioid cells."

- (5) Case Report 3. Please describe the details of the lesion in different phases of contrast-enhanced MRI. The characteristic of the lesion in different phases might indicate the possible diagnose.

**Response:** We appreciate your pointing out this problem in the manuscript. The presentation of the patient's hepatic PEComa in the arterial phase of MRI T1WI and T2WI has been described on page 8, lines 17-19 of the manuscript, and on page 8, lines 19-20 we provided a further description of the presentation of pecoma in the arterial, portal and delayed phases images.

- (6) 4. Page 5, line 14. Are there more lesions found in the arterial phase of MRI? Please describe the features of the other lesions excluding the mentioned lesion, such as in size, shape and enhancement.

**Response:** We are sorry to have confused you about this matter. In the arterial phase of MRI only a nodular abnormal signal shadow was found in the liver S6. We further added the size, shape and enhancement of the abnormal signal shadow in lines 21 to 26 on page 7 of the manuscript.

- (7) 5. Page 5 line 14, it should read "...it appears to be an HCC nodule."

**Response:** Thanks for pointing out this problem in the manuscript. This sentence has been revised "Based on the imaging findings, it appears to be an HCC nodule."

- (8) 6. Page 6 line 6, it should read "...account for the elevated CA125."

**Response:** Please accept our sincere thanks for pointing out this problem. This sentence has been revised "Tumors from ovarian origin may account for the elevated CA125."

- (9) 7. Page 6 line 12, it should read "...delayed phases decreased rapidly, and the strengthening method showed a rapid..."

**Response:** Thanks for pointing out this problem in the manuscript. This sentence

has been revised “The enhancement of lesions in the portal and delayed phases decreased rapidly, and the strengthening method showed a rapid in and out the pattern.”

(10)8. Page 6 line 17, it should read “... The boundaries of the lesion were clearly”

**Response:** We appreciate your pointing out this problem in the manuscript. This sentence has been revised “The boundaries of the lesion were clearly defined”

(11)9. Page 7 line 8, it should read “...the 30-year-old woman, it was an ovarian...”

**Response:** Thanks for pointing out this problem in the manuscript. This sentence has been revised “According to the histopathologic examination of the ovarian lesion of the 30-year-old woman, it was an ovarian mature cystic teratoma”

(12)In the part of discussion, author should summarize the characteristics of PEComa differentiating from other diseases by reviewing the recent studies.

**Response:** We appreciate your pointing out this problem in the manuscript. In the discussion section, lines 23-29 on page 11 and lines 1-4 and 8-14 on page 12, we summarized the distinguishing features of hepatic PEComa from HCC in terms of clinical, imaging, histopathology and immunohistochemistry, and added the distinguishing features of hepatic PEComa from other liver diseases in CEUS on page 12, lines 15-22.

(13)The reasons that why the frozen pathological examinations were helpless in these three cases should be discussed, as the pathological features of PEComa are quite different from the HCC.

**Response:** We are sorry to have confused you about this matter. The

histopathological features of hepatic PEComa are further detailed on page 11, lines 12 to 15, and the reasons for the ineffectiveness of intraoperative frozen pathological examination are explained on page 11, lines 19-22.

(14)As the difficulty of differential diagnoses between PEComa and HCC, authors should discuss the other possible methods to figure out the characteristics of PEComa, such as the contrast-enhanced ultrasound and core needle biopsy, before surgery.

**Response:** We appreciate your pointing out these problems in the manuscript. They are essential for improving the quality of our articles. We reviewed some of the literature on the contrast-enhanced ultrasound and core needle biopsy for preoperative diagnosis of hepatic PEComa and added to them in the manuscript discussion section, page 12, last paragraph.

(15)The conclusion should be condensed.

**Response:** Please accept our sincere thanks for pointing out this problem. We have further added and condensed the conclusion.

**Company editor-in-chief:**

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.

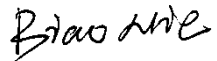
**Response:** We appreciate your suggestions for the manuscript, and we have used the Reference Citation Analysis to find the latest highlight article to further improve

and supplement our manuscript.

We greatly appreciate your consideration !

Sincerely,

Biao Nie, PhD



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