OPEN PEER REVIEW

Open Peer Review (OPR)

As a new feature for progressing towards transparency, we decided to open a new window for all of our editors as well as authors titled "**Open Peer Review**". We hope by this new facility, our reviewers will be more motivated and authors will be more satisfied with the review process. We believe that publishing our peer review reports could make a transparent and clear environment for all our efforts within a journal, but not all reviewers tend to publish their comments.

What is "Open Peer Review" process?

An "Open Peer Review" process is making the details of all review process (including reviewers, associate editors, and EICs comments) as "Public" as it is agreed by EIC, Authors, and reviewers.

Advantages of "Open Peer Review" process

- More transparency, constructiveness and tactful comments of the peer review process: leads to an increase in the quality of reviews
- More motivations for all involved roles in the review process
- Authors' satisfactions from the review process: Increases honesty between authors and reviewers
- Education of both authors and new students
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Peer Review Report for "Primary Thymic Mucinous Adenocarcinoma: A Case Report Focusing on Radiological Findings and Review of the Literature"

Author(s): Young Hoon Koo, Jae Wook Lee, Jai Soung Park, Kyung Eun Shin, Heon Lee, Susie Chin

Review Timeline:

Submit Date: 22 Feb 2020
Revised Date: 4 Jul 2020
Accepted Date: 23 Aug 2020

Revision (0)

Here, you can see the **Reviewers**, **Associate Editors** and **EICs'** comments from the beginning to the end of the revision process.

REFEREE: Reviewer | **Revision** (0) — 11 Apr 2020

Dear AE,
Thanks to the authors for submitting the paper in IJR.
The article has educative points.
These two sentences are different:
- Left paramedian basioccipital bone.
- Our patient showed neurological symptoms due to brain metastasis.
Can you explain more about them? On the sent image the lesion is visible at the Left petrous apex with Petro-clival fissure extension.
- What was the exact problem of your patient? Dysarthria or dysphonia? Don't you think about recurrent laryngeal paralysis?
Thanks.

REFEREE: Associate Editor | **Revision** (0) — 16 Apr 2020

Dear EIC,
Thank you for sending the manuscript for review. A reviewer has suggested comments. I also have comments about the case report:

1. The Abstract should be re-written. More information about imaging findings are required.
2. The “Introduction” should be re-written.:
Primary thymic mucinous adenocarcinoma is a very rare disease.
Please provide statistics of this sentence. How rare is this adenocarcinoma?
3. What is the outcome? The sentence “Its prognosis is poor” should be elaborated with respective references.
4. Reports on its radiology findings are insufficient
This sentence is defective. Please provide the background information we know about imaging of this tumor and related references.
5. It should be mentioned in the Introduction what new diagnostic imaging has been done in this case.
6. In Table 1, please add reference numbers beside name of the authors
7. Discussion: “Our patient showed neurological symptoms due to brain metastasis without any respiratory symptoms.” What other clinical findings did the patient have at presentation besides dysathria?
Thanks

REFEREE: EIC | **Revision (0)** 18 Apr 2020

Dear Authors,
Your article needs Major Revision.
Regards

OPEN PEER REVIEW

Revision (1)

Reply to Reviewers

Ideally, the reviewing process can significantly improve the submitted manuscripts by allowing the authors to take into account the advice of reviewers. Author(s) must reply to all reviewers' comments in a separate Word file, point by point. A "**Reply to Reviewers**" document is submitted along with revised manuscript during submission of revised files, summarizing the changes that the authors made in response to the reviewers' comments. The responses to reviewers' comments specifies how the authors addressed each comment the reviewers made.

You can read the authors' responses to the reviewers' comments in the next page.

Reply to Reviewers Letter

Dear Editors, thank you for giving me the opportunity to submit a revised draft of my manuscript “Primary thymic mucinous adenocarcinoma: A case report focusing on radiologic finding and a review of the literature” to Iranian journal of radiology. I appreciate the time and effort that you and the reviewers have dedicated to providing your valuable feedback on my manuscript. I am grateful to the reviewers for their insightful comments on my paper. I have been able to incorporate changes to reflect most of the suggestions provided by the reviewers. I have highlighted the changes within the manuscript.

Here is a point-by-point response to the reviewers’ comments and concerns.

Comments from Reviewer 1

- Comment or question 1:

These two sentences are different:

Left paramedian basioccipital bone

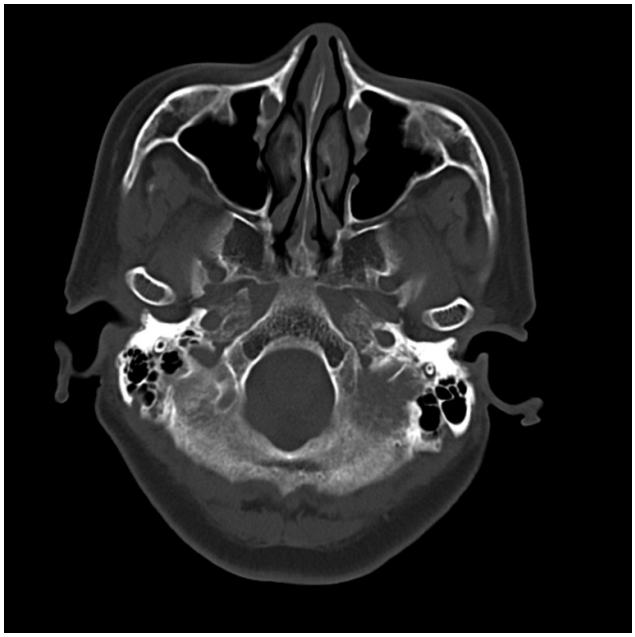
Our patient showed neurological symptoms due to brain metastasis

Can you explain more about them? On the sent image the lesion is visible at Left petrous apex with Petro-clival fissure extension

- Response:

I apologize for the incorrect description. The mass is a bone-destroying lesion located in the left lateral part of the occipital bone. To express this in more detail, a CT figure of the bone window setting was added (Fig. 1A). I think “bone metastasis” would be right, instead of “brain metastasis”, and I apologize again for not being careful. The content of the text has been changed as follows.

On the CT, an osteolytic lesion of about 2.5 cm in size was found in the left lateral part of the occipital bone (Fig. 1A) (1st paragraph of “Case report” section).



- Comment or question 2:

What was the exact problem of your patient? Dysarthria or dysphonia? Don’t you think about recurrent laryngeal paralysis?

- Response:

We apologize for the confusion as the patient's clinical condition is not accurately described.

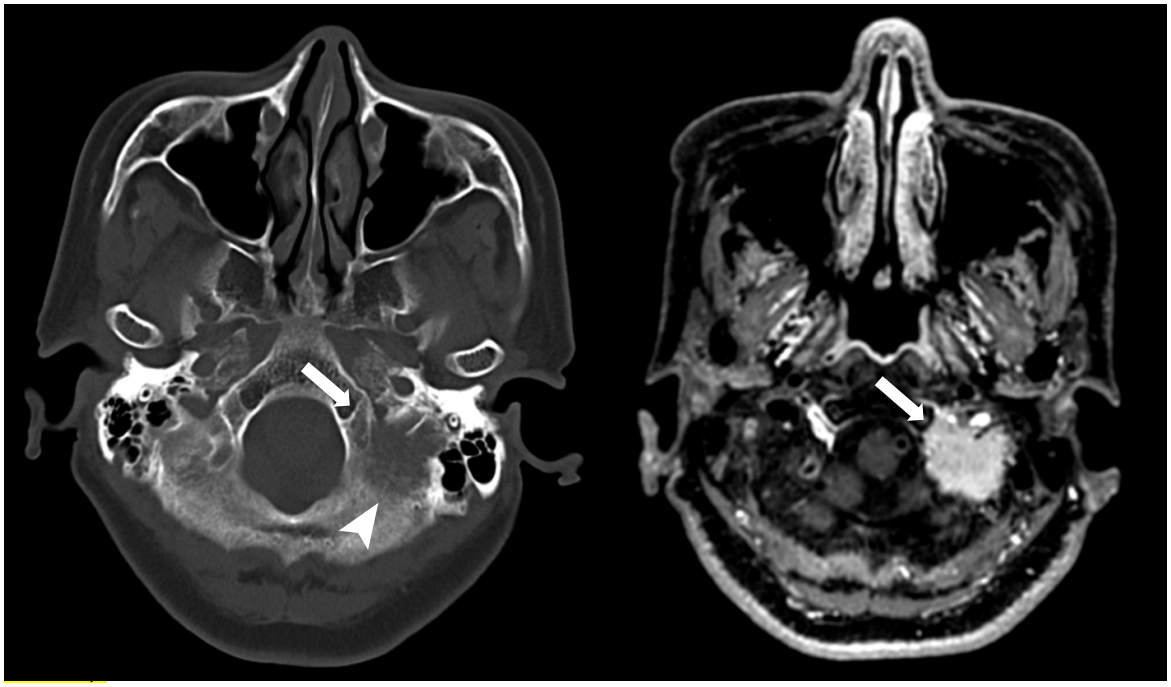
A careful review of the patient ’s record revealed her symptoms were tongue deviation to the left side as well as dysarthria. The patient's bone lesion was invading the left hypoglossal canal, and tongue deviation and dysarthria can be explained by a hypoglossal nerve (cranial nerve XII) injury. The hypoglossal canal was damaged by a bone destructing mass and can be seen in the figure (Fig. 1A, B).

Dysarthria or dysphonia can also be caused by the recurrent laryngeal paralysis that you have mentioned, and the anterior mediastinal lesion in this patient extends to the thoracic inlet level, which can invade the right recurrent laryngeal nerve. Unfortunately, no physical examination was performed to confirm vocal cord palsy, and there is no description of vocal cord injury in medical records. To make an excuse, the patient's tongue deviation is better explained by hypoglossal nerve injury, so I think the cause of dysarthria may be due to bone metastasis.

For the clinical aspects of the patient, we will revise the following in the case report section and discussion section.

At the physical examination, the patient's tongue deviated to the left. (1st paragraph of “Case report” section).

Our patient had no respiratory symptoms, but showed dysarthria, and a physical examination revealed the left-sided deviation of the tongue. This was thought to be the result of metastatic mass of occipital bone invading the left hypoglossal canal. (2nd paragraph of “Discussion” section).



- Comment or question 2:

The “Introduction” should be re-written.:

Primary thymic mucinous adenocarcinoma is a very rare disease.

Please provide statistics of this sentence. How rare is this adenocarcinoma?

- Response:

I described statistics on the epidemiology of primary thymic adenocarcinoma. Also, the number of reports of mucinous subtypes so far has been described. It was described as follows.

Although the incidence varies according to literature, it accounts for about 1.6% to 3.98% of thymic carcinoma. Mucinous adenocarcinoma is one of its subtypes, so far 27 cases have been published in the English literature. (1st paragraph of “Introduction” section).

- Comment or question 3:

What is the outcome? The sentence “Its prognosis is poor” should be elaborated with respective references.

- Response:

I described its prognosis, using statistics from a previously published paper. Prognosis is described in the Introduction section, and the contents are as follows.

Among thymic adenocarcinoma, the prognosis for the mucinous subtype is poor. According to previous literature, patients undergoing complete resection may survive for more than 5 years. In many patients, however, adjacent tissue infiltration is observed at the time of diagnosis and they undergo poor prognosis. (3rd paragraph of “Introduction” section).

- Comment or question 4:

Reports on its radiology findings are insufficient

This sentence is defective. Please provide the background information we know about imaging of this tumor and related references.

- Response:

There were several articles about pathologic findings, but there were few articles about imaging findings.

Ra et al. described that “These tumors range in size from 3.5 to 14.5 cm in maximum dimension (mean 8.3 cm) and can be solid, cystic, or both. The mucinous tumors were on average larger (mean 9.6 cm, range 4.5 to 14.5 cm) compared with the nonmucinous tumors (6.9 cm, range 3.5 to 10 cm).”

(Ra SH, Fishbein MC, Baruch-Oren T, Shintaku P, Apple SK, Cameron RB, et al. Mucinous adenocarcinomas of the thymus: report of 2 cases and review of the literature. Am J Surg Pathol. 2007;31(9):1330-6.)

Maeda et al. reported also “These tumors are located in the anterior mediastinum and frequently invade adjacent major vessels”.

(Maeda D, Ota S, Ikeda S, Kawano R, Hata E, Nakajima J, et al. Mucinous adenocarcinoma of the thymus: a distinct variant of thymic carcinoma. *Lung Cancer*. 2009;**64**(1):22-7.)

Abdul-Ghafar et al. reported “The tumor size is large with an average size of 10.27 cm (range, 5.2 to 14.5 cm) and 50% (5/10) of cases are associated with cystic change.”

(Abdul-Ghafar J, Yong SJ, Kwon W, Park IH, Jung SH. Primary thymic mucinous adenocarcinoma: a case report. *Korean J Pathol*. 2012;**46**(4):377-81.)

It was described as follows.

Few reports have focused on imaging findings. The known computed tomography findings are that the large anterior mediastinal mass with cystic change and invading adjacent major vessels. (2nd paragraph of “Introduction” section).

- Comment or question 5:

It should be mentioned in the Introduction what new diagnostic imaging has been done in this case.

- Response:

We wanted to see what kind of findings were shown in the previously reported literature. We also tried to analyze MRI images of our case. This is described in the last paragraph of Introduction section. Analysis of MRI findings was added to the discussion section.

Besides, we analyzed magnetic resonance imaging (MRI) findings that were rarely introduced in the previous literature, and tried to find imaging findings that could help diagnose this disease. (4th paragraph of “Introduction” section).

MRI findings were rarely described in previous literature. In our patients, there was an intermediate signal intensity in the T1-weighted image and a heterogeneous high signal intensity in the T2-weighted image, which were similar to signal intensity of the mucinous component of mucinous adenocarcinoma occurring in the abdomen or pelvic cavity. This correlated with the low attenuation area observed in CT. However, this finding is not specific for mucin. So more research is needed on the findings of MRI images, including image-pathology correlation. (5th paragraph of “Discussion” section).

- Comment or question 6:

In Table 1, please add reference numbers beside name of the authors

- Response:

I apologize for not listing the reference number in the table. I changed it to a new table with a reference number.

- Comment or question 7:

Discussion: “Our patient showed neurological symptoms due to brain metastasis without any respiratory symptoms.”

What other clinical findings did the patient have at presentation besides dysarthria?

- Response:

First, I am sorry that there was an error in the submitted manuscript. To be precise, the bone metastasis that invades the left lateral part (basal portion) of the occipital bone is the correct expression, and the brain metastasis is the wrong expression. Due to the metastatic bone lesion, there was a left hypoglossal canal involvement, and the patient had a left-sided tongue deviation. This led to dysarthria, which was the main symptom of the patient. However, there

were no symptoms other than the above symptoms, and no specific findings were found in physical examination.

Throughout the manuscript, the part expressed as brain metastasis was modified to bone metastasis, and the left-sided tongue deviation associated with hypoglossal canal involvement was added to the case report and discussion sections.

At the physical examination, the patient's tongue deviated to the left. (1st paragraph of “Case report” section).

Our patient had no respiratory symptoms, but showed dysarthria, and a physical examination revealed the left-sided deviation of the tongue. This was thought to be the result of metastatic mass of occipital bone invading the left hypoglossal canal. (2nd paragraph of “Discussion” section).

Once again, I apologize for the lack of scrutiny.

Additional clarifications

I added the CT image of the skull base lesion, so the numbers of Figure 1 are changed. I also highlighted Figure numbers on Case report section.

We look forward to hearing from you in due time regarding our submission and to respond to any further questions and comments you may have.

Sincerely, Jae Wook Lee, corresponding author.

OPEN PEER REVIEW

Revision (1)

Here, you can see the **Reviewers**, **Associate Editors** and **EICs'** comments from the beginning to the end of the revision process.

REFEREE: Reviewer | **Revision** (1) — 6 Jun 2020

Dear AE,
I saw the appropriate corrections made in the article.
Only I recommend wherever the authors have mentioned ' occipital bone ' change it to ' occipital bone and petrous apex ' because as I see Temporal bone medial to mastoid air cells is also involved. Otherwise, I see no problem.
Thanks.

REFEREE: Associate Editor | **Revision** (1) — 30 Jun 2020

Dear EIC,
The article needs Minor Revision.
Regards

REFEREE: EIC | **Revision** (1) — 30 Jun 2020

Dear Authors,
Your article needs Minor Revision.
Regards

OPEN PEER REVIEW

Revision (2)

Reply to Reviewers

Ideally, the reviewing process can significantly improve the submitted manuscripts by allowing the authors to take into account the advice of reviewers. Author(s) must reply to all reviewers' comments in a separate Word file, point by point. A "**Reply to Reviewers**" document is submitted along with revised manuscript during submission of revised files, summarizing the changes that the authors made in response to the reviewers' comments. The responses to reviewers' comments specifies how the authors addressed each comment the reviewers made.

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I appreciate the time and effort that you and the reviewers have dedicated to providing your valuable feedback on my manuscript. I have highlighted the changes within the manuscript.

Here is a point-by-point response to the reviewer’s comments and concerns.

Comments from Reviewer

- Comment or question:

Only I recommend wherever you have mentioned ' occipital bone ' change it to ' occipital bone and petrous apex ' because as I see Temporal bone medial to mastoid air cells is also involved.

- Response:

I apologize again for the incorrect description. The content of the text has been changed as you mentioned.

The patient visited the emergency room with dysarthria as a chief complaint, and a mass was found in the occipital bone and petrous apex in brain computed tomography (CT) and magnetic resonance imaging. (2nd paragraph of “Abstract” section).

On the CT, an osteolytic lesion of about 2.5 cm in size was found in the left lateral part of the occipital bone and petrous apex (Fig. 1A). (1st paragraph of “Case report” section).

This was thought to be the result of metastatic mass of occipital bone and petrous apex invading the left hypoglossal canal. (2nd paragraph of “Discussion” section).

A 60-year-old woman with primary thymic mucinous adenocarcinoma metastasis to the skull base. In the brain CT with bone window setting, an osteolytic lesion (arrowhead) of about 2.5 cm in size is observed in the left lateral part of the occipital bone and petrous apex, and this lesion is invading the left hypoglossal canal (arrow) (A) (Fig. 1A, “Figure legend”).

In contrast-enhanced (CE) brain MRI, there was approximately 2.5 cm homogeneous enhancing lesion in the left lateral part of occipital bone and petrous apex, invading the left hypoglossal canal (arrow) (B) (Fig. 1B, “Figure legend”).

Once again, I apologize for the lack of scrutiny.

Additional clarifications

Once again, thank you for kind feedback on my manuscript. And we revised it as you mentioned.

To qualify for 1st author's taking examination as a radiologist, we look forward to hearing from you regarding our submission soon.

Sincerely, Jae Wook Lee, corresponding author.

OPEN PEER REVIEW

Revision (2)

Here, you can see the **Reviewers**, **Associate Editors** and **EICs'** comments from the beginning to the end of the revision process.

REFEREE: Reviewer | **Revision** (2) — 8 Jul 2020

Dear AE,
The study is reviewed carefully. According to comments and revisions by the author, this manuscript is accepted.
Thanks

REFEREE: Associate Editor | **Revision** (2) — 8 Jul 2020

Dear EIC,
The article is acceptable for the publication in IJR.
Regards

REFEREE: Associate Editor | **Revision** (2) — 23 Aug 2020

Dear EIC
Based on the authors' answers to the reviewers' comments, the reviewer(s) have recommended publication.
Kind regards.

REFEREE: EIC | **Revision** (2) — 23 Aug 2020

Dear Authors,
Your article is acceptable for the publication in IJR.
Regards