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
- Prevents reviewers from following their individual agendas and leading to the detection of reviewers' conflicts of interests

You can find out more at:
https://sites.kowsarpub.com/kowsar/knowledgebase/category/tree.html#opr.html

Archives of Neuroscience
Article DOI: 10.5812/ans.86148
Published in: Archives of Neuroscience: 6(3); e86148

Peer Review Report for "Standalone Transoral Vertebroplasty for Treatment of Painful Metastatic C2 Lesion: A Case Report"

Author(s): Majid Reza Farrokhi, Nima Derakhshan, Hamid Rezaei, Saber Zafar Shamspour

Review Timeline:

Submit Date: 6 Nov 2018
Revised Date: 10 Feb 2019
Accepted Date: 24 May 2019

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)

30 Nov 2018

Dear AE,
Thank you for giving me the opportunity to review the manuscript entitled:
“Standalone Transoral Vertebroplasty for Treatment of Painful Metastatic C2 Lesion”.
The authors reported a patient with a cervical (C2) vertebral metastasis who was suffering from intractable severe pain. The cervical pain was treated with trans-oral C2 vertebroplasty and the patient had considerable pain relief for a long time.
This report is valuable because the procedure of the vertebroplasty in the cervical region would be a challenging operation. The reports of cervical vertebroplasty are not frequent in the literature.
I would like to add a few comments:
1- The scientific writing only needs a minor revision.
2- Did the authors have a cervical spine MRI, STIR sequence, to evaluate the vertebral edema? It would be valuable if they could add this data to their report.
3- It is always recommended to inject cement into the vertebral body under continuous fluoroscopic guidance to make sure that there is no leakage of the cement toward the cord or into the vertebral vessels. If this practice was not performed in the procedure, I would highly recommend the authors to mention it in their report as a flaw of their technique. I

believe that the intra-vertebral cement injection should be always performed under continuous fluoroscopic guidance and I would encourage the authors to mention it in their report.
With best regards,

REFEREE: Reviewer | **Revision** (0) 4 Jan 2019

Dear AE,
The authors presented a case of C2 osteolytic metastasis that underwent transoral vertebroplasty. They claimed pain relief, stability, and long term acceptable outcome. However, such lesion carries a high risk of overt instability and even sudden death with minor trauma. There is no rationale to perform minimally invasive procedures in every case, which seems even to be a much more invasive intervention carrying a high risk of infection and bleeding. Furthermore, such a procedure doesn't treat instability. Fusion may be necessary for such a patient with a remaining cortical shell of the C2 body.
Just one case doesn't indicate the acceptability of the procedure. Moreover, what has been the source of bony metastasis with survival for 3 years? Legal issues should be addressed as well.
Thanks.

REFEREE: Associate Editor | **Revision** (0) 9 Jan 2019

Dear EIC,
As one of the reviewers has rejected we would like to perform a major revision and resubmit it.
Thanks.

REFEREE: EIC | **Revision** (0) 9 Jan 2019

Dear Author,
Your article is reviewed by the reviewers carefully. According to their comments, this document needs major revision. Please follow their comments as requested.
Thanks.

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.

Shiraz University of Medical Sciences

Shiraz Neuroscience Research Center

Dr. Zahid Hussain Khan
Editor-in-Chief
Archives of Neuroscience

Dear Dr. Zahid Hussain Khan, February 10, 2019

With great thanks for your valuable comments on our manuscript entitled "Standalone Transoral Vertebroplasty for Treatment of Painful Metastatic C2 lesion: A Case Report" (Manuscript ID: 86148), we have revised the manuscript based upon the reviewers' comments. Our reply to the reviewers' comments are as the followings which also have been highlighted in red in the manuscript. Our Acknowledgement section is as the following:

Response to Reviewers' Comments:

Reviewer 1:

The authors presented a case of C2 osteolytic metastasis that underwent transoral vertebroplasty. They claimed pain relief, stability and long term acceptable outcome. However, such lesion carries a high risk of overt instability and even sudden death with minor trauma. There is no rational to perform minimal invasive procedure at every case, which seems even to be much more invasive intervention carrying high risk of Infection and bleeding. Furthermore, such procedure doesn't treat instability. Fusion may be necessary for such patient with a remaining cortical shell of C2 body

*That's true. These lesions carry a high risk of overt instability; In this very patient, dynamic instability was not present prior to the operative procedure and also in the post-op and follow-up imaging. We highlighted this fact in the discussion "… vertebroplasty not only alleviates pain but also enhances the biomechanical properties of axis to withstand axial load and in the absence of pre-operative overt instability…".

We have proposed this approach for osteolytic lesions, which did not have overt instability yet; and the procedure may help prevent instability, fusion and post-surgical limitation of motion in this subgroup of patients.

We agree that this procedure has a high risk for infection and bleeding, as of other minimally-invasive lesions. Careful case selection, meticulous technique and experience with trans-oral procedures, is essential prior to proceed with this approach. (This paragraph is added to the discussion)

Just one case doesn't indicate acceptability of the procedure.

*We didn't claim this procedure to be the standard approach for all of such lesions, however in the absence of overt instability, augmentation of axis with PMMA can prevent the instability and augment biomechanical properties.

Moreover, what has been the source of bony metastasis with survival for 3 years?

*The source was breast cancer which is highlighted in the case description, first paragraph.

Legal issues should be addressed as well.

*Patient and her husband signed the informed consent forms with knowing that this procedure has only been attempted in a few cases previously; Having been told that the posterior fusion surgery may limit the rotation up to 60%, they consented to undergo the minimally-invasive procedure with the chance of preserving motion, with understanding the potential risks and possibility of need for fusion surgery if the procedure fail.

Reviewer 2:

Dear Editor-in-chief,
Thank you for giving me the opportunity to review the manuscript entitled: "Standalone Transoral Vertebroplasty for Treatment of Painful Metastatic C2 Lesion".
The authors reported a patient with a cervical (C2) vertebral metastasis who was suffering from intractable severe pain. The cervical pain was treated with trans-oral C2 vertebroplasty and the patient had a considerable pain relief for a long time.
This report is valuable because the procedure of the vertebroplasty in the cervical region would be a challenging operation. The reports of cervical vertebroplasty are not frequent in the literature.
I would like to add a few comments:
1- The scientific writing only needs a minor revision.
2- Did the authors have a cervical spine MRI, STIR sequence, to evaluate the vertebral edema? It would be valuable if they could add this data to their report.

*Unfortunately, these imaging studies are not available, because they were not obtained prior to the operative procedure.

3- It is always recommended to inject cement into the vertebral body under continuous

fluoroscopic guidance to make sure that there is no leakage of the cement toward the cord or into the vertebral vessels. If this practice was not performed in the procedure, I would highly recommend the authors to mention it in their report as a flaw of their technique. I believe that the intra-vertebral cement injection should be always performed under the continuous fluoroscopic guidance and I would encourage the authors to mention it in their report. With best regards,

*As you have mentioned, this procedure was carried out under continuous fluoroscopic guidance.

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) 24 May 2019

Dear AE,
Thank you for giving me the opportunity to review the manuscript entitled:
“Standalone Transoral Vertebroplasty for Treatment of Painful Metastatic C2 Lesion, a case report”.
The current manuscript is the second version after the first review. The case report is valuable and the authors have considered my comments.
With best regards,

REFEREE: Associate Editor | **Revision** (1) 24 May 2019

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

REFEREE: EIC | **Revision** (1) 24 May 2019

Dear Author,
The document is reviewed carefully by the reviewers. According to their comments and your revisions as requested, this manuscript is accepted.
Thanks.