

Reviewer comment and Author response

Dear reviewer,

We would like to thank you for your efforts in reviewing our manuscript titled "Subdural fluid collection rather than meningitis contributes to hydrocephalus after cervical laminoplasty: case report and review of literature", and providing many helpful comments and suggestions, which will all prove invaluable in the revision and improvement of our paper.

We have studied your comments point by point, revised the manuscript accordingly. All authors have approved the response letter and the revised version of the manuscript.

Thank you again for your valuable comments and suggestions.

Yours sincerely,

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Response to reviewer #1:

We really appreciate you for your carefulness and conscientiousness. Your suggestions are really valuable and helpful for revising and improving our paper. According to your suggestions, we have made the following revisions on this manuscript:

1. page 5, line 8 – I suggest rearrangement of the MRI scans in time axis. After the presentation of Fig1 A the authors immediately proceed to Fig. 2 A – logical because of the problems of the patients, but not so comfortable for the reader (and a reviewer because of the need to skip from one set of images to another)

page 6, line 16 - page 7, line 16- as already stated above, I strongly suggest the rearrangement of the MRI / CT in this axis reflecting the course of the treatment . It is difficult for the reader to skip from e.g Figure 3C and 3D (line 8) back again to Fig. 1J (line 14). However the treatment course is otherwise well described.

Please consider rearrangements of the well selected scans in logical time line.

Response:

Thank you for your constructive comments, the images of MRI scans and brain CT had been rearranged in time axis. (Figure 1-3)

2. page 5, lines 10 – 13 – in the differential diagnostic workup in the situation of the patient's deterioration on the 10th day after operation (high fever ,WBC: $13.22 \times 10^9/L$; neutrophil, $10.42 \times 10^9/L$; CRP: 18.55mg/L; ESR: 37mm/h) cervical MRI was surely not the first choice exam. I would appreciate the description of the local status of the wound, the presence /absence of neurological symptoms accompanying the situation (meningeal syndrome, worsening of radicular or myelopathic symptoms) and the results of other exams that have led the primary surgeons to the diagnosis of postoperative pseudocyst meningitis (high level of protein and WBC count in the pseudocyst fluid is a normal finding) However the primary treatment was done in another hospital so a short notice e.g. about not availability of such data would be quite acceptable.

Response:

Thank you very much for your advice. According to the data recorded in local hospital, there was no pressure pain and exudation around the skin of incision except for slight redness. Cervical MRI was performed due to local doctors' concerns about possible surgical site infection, and unexpectedly revealed occult CSF leakage. Although the patient had no obvious symptoms of neurologic deficits and meningeal irritation, and bacterial culture of pseudomeningocele fluid was negative, mild acute central nervous system infection could not be excluded. Relevant contents have been added to the text. (Page 6, line 2-6)

3. page 8, line 4 – the results of CSF tests are not necessary for the cases of obstructive hydrocephalus quoted by the authors (pressive effect of subdural fluid collection or

cerebellar enlargement due to cerebellar hemorrhage, obstruction of clot formation following brisk bleeding entering subarachnoid space and ventricle system), therefore I suggest removing the sentence Unfortunately, these cases did not mention the results of CSF tests.

Response:

Thank you for your positive comments. The sentence had been removed. (Page 8, line 13)

4. page 8, line 16 – the spelling error – leision.

Response:

Thank you for your positive comments. The spelling error has been corrected. (Page 9, line 4)

5. page 8 – lines 20 – 21 - At 21 months follow-up, the patient still had asymptomatic meningitis (Table 1)..... Is the patient receiving any long term antibiotic treatment?

Response:

Thank you for your insightful comment. The patient had no obvious symptoms of fever, neurologic deficits and meningeal irritation after dural repair, and his blood test return to normal before discharge. Therefore, it is reasonable to keep observation and follow-up instead of long term antibiotic treatment.

6. page 15 – description of Fig 1. E and F: the sentence Sagittal and axial view of cervical MRI before pseudomeningocele is not eligible to the reviewer (probable meaning something like Sagittal and axial view of cervical cervical spine after laminoplasty in front of the pseudomeningocele) and I suggest reformulation.

Response:

Thank you very much for your valuable comments. The sentence had been revised. The revised sentence is as follows: Sagittal and axial view of cervical MRI before pseudomeningocele drainage (Page 18, description of Fig 2B)

7. Abstract Regarding the Background – although the reviewer is not a native speaker of English language and the paper has undergone language correction the sentence ‘This case report presented a patient with hydrocephalus accompanied by both subdural fluid collection and chronic meningitis after cervical laminoplasty for the first time.’ is not quite easy to read and comprehend and therefore reformulation may be considered.

Response:

Thank you very much for your valuable comments. The sentence has been revised. The revised sentence is as follows: Herein we describe a patient complicated with hydrocephalus after cervical laminoplasty in whom subdural fluid collection in cervical spine and posterior cranial fossa rather than chronic meningitis was the main

mechanism. (Page 3, line 5-7)