

## Revision Notes

Dear Editors and Reviewers:

Thank you for your letter and the reviewers' comments concerning our manuscript entitled "Cerebral venous sinus thrombosis following trans-sphenoidal surgery for craniopharyngioma: a case report (ID: 53450 )". Those comments are all valuable and very helpful for revising and improving our paper, as well as the crucial guiding significance to our research. We have studied comments carefully and have made a total correction, which we hope to meet with approval. Revised portions are marked in red in the paper. The primary corrections in the paper and the response to the reviewers' comments are as following:

1. Comment: Direction of the manuscript – The manuscript is too long and jumps too much between a range of different topics. My suggestion is to simplify the case presentation and discussion down to focus on the event of the CVST and the predisposing factors.

**Response:** We have made rewriting according to the Reviewers' comments. We have simplified the case presentation and focused on the CVST formation and predisposing factors.

2. Investigation – Given that the patients son had a CVST was there a thrombophilia screen done? If the patient did have a genetic predisposition the multifactorial explanation of the reasons behind the CVST may be supercilious.

**Response:** We agree with the Reviewer's comments. It is necessary to have a genetic predisposition to the multifactorial explanation of the reasons when the CVST may be supercilious. These factors, the condition deteriorated rapidly after hospitalization, and no conditions for gene detection, prevent us from perfecting the genetic inspection. (P4, L15-17)

3. Did they have an MRI to confirm the CVST?

**Response:** It is a pity that MRI was not performed due to the rapid deterioration of the patient's condition, for critical activities for diagnosis and treatment. However, we have done cerebral angiography as soon as possible to make a definitive diagnosis for CVST. (P4, L30, P5, L1-3)

4. Management of patient – Was the patient thrombolysed AND given anticoagulation when they had identified bilateral parietal occipital lobe haemorrhages?

**Response:** In case of failure to improve or deteriorate despite anticoagulant therapy, the patient was treated with direct catheter medicine thrombolysis and mechanical thrombectomy. Although, head CT showed edema at the bilateral parietal lobe, and hemorrhage at the left parietal lobe and right occipital lobe, there were no severe abnormalities in coagulation test before medicine thrombolysis and mechanical thrombectomy (PT 11.6 sec, INR 0.98, APTT 28.9sec, Fib 3.61g/L, FDP 46.77 ug/mL, D-D 24.090ug/mL ). Ferro JM et al.[1]declared that endovascular thrombolysis should be considered a treatment option for CVT patients who worsen despite anticoagulant therapy, in particular, those with thrombosis of the cerebral deep venous system and without large hemispheric lesions with mass effect and imminent risk of herniation. Indeed, family members of patients were informed about the risks and benefits of thrombolysis, and informed consent was taken.

[1] Ferro JM, Canhão P, Aguiar de Sousa D. Cerebral venous thrombosis. *Presse Med.* 2016;45(12 Pt 2):e429–e450.

5. Could you show pictures of the haemorrhage?

**Response:** We have made corrections according to the Reviewers' comments. (P8, L7-9) (Fig. 3 C, D)

6. Did they worsen after thrombolysis?

**Response:** His condition continued to worsen after thrombolysis. Finally, the neurological disorder deteriorated sharply from consciousness to die during the

following four days after readmission. Moreover, we did not find evidence that the patient experienced worsening of his clinical condition was not due to thrombolysis.

7. Grammar and syntax – There are a number of missing words that need placing/non-sensical sentences that need rewording. I have corrected some in the manuscript itself.

**Response:** We have made corrections according to the Reviewers' comments, and revised portions are marked in red in the paper.

8. Dating – Generally in case reports the dates are not included as it reduces the anonymity of the patient.

**Response:** We have made corrections according to the Reviewers' comments.

(P2, L15,19; P7, L3- 4; P8, L5-6)

9. Specific Comments: 1. Abstract: "decompression (DDAVP)" – typo – may mean "desmopressin".

**Response:** We have made corrections according to the Reviewers' comments. (P3, L6, 26-27)

10. Abstract: "presented gradual headache and intermittent cerebrospinal fluid (CSF) leakage during vomiting" - Grammatically incorrect – requires "presented with gradual onset of headache" and "leakage while vomiting."

**Response:** The statements of “presented gradual headache and intermittent cerebrospinal fluid (CSF) leakage during vomiting” were corrected as “cerebrospinal fluid (CSF) leakage while vomiting.” (P1, L17-18)

11. Abstract – "showed hyperdense superior sagittal sinus (SSS)" – Should be "showed a"

**Response:** The statements of “showed hyperdense superior sagittal sinus (SSS)” were corrected as “showed a hyperdense superior sagittal sinus.”(P1, L18-19)

12. Abstract – "parietooccipital lobe moderate edema, and haemorrhage" should be "moderate edema and hemorrhage of the parietooccipital lobe."

**Response:** The statements of "parietooccipital lobe moderate edema, and haemorrhage" were corrected as "edema at the bilateral parietal lobe, and hemorrhage at the left parietal lobe and right occipital lobe." (P1, L19-20)

13. Abstract – "Finally, the neurological deterioration altered sharply from consciousness to deep coma during the following 4 days after readmission." – Unsure what you're trying to say here. Need to reword this statement.

**Response:** The statements of "Finally, the neurological deterioration altered sharply from consciousness to deep coma during the following four days after readmission." was corrected as "Finally, the neurological disorder deteriorated sharply from consciousness to die during the following four days after readmission." (P1, L23-25)

14. Case Presentation – "Ommaya capsule reservoir" – You'll need a citation for this and you'll need to reword this sentence. Its not particularly clear.

**Response:** The statements of "Ommaya capsule reservoir" were corrected as the "Ommaya reservoir." ((P2, L21-22)

15. Case Presentation – "The neurological examination on admission showed the state of the patient was consciousness, bilateral visual acuity of 0.8/0.8 and without visual field defects" Poor English. Needs to be reworded.

**Response:** The statements of "The neurological examination on admission showed the state of the patient was consciousness, bilateral visual acuity of 0.8/0.8 and without visual field defects" were corrected as "The neurological examination revealed visual acuity of 0.8/0.8 bilaterally, inferior temporal(left), and inferior nasal (right) visual field defects on admission at our hospital." (P2, L25-27)

16. Case Presentation – "Head CT (2-August-2018) , (3-August-2018): Non-contrast axial CT images shows hyperdense superior sagittal sinus and right transverse sinus, the presence of bilateral parietal-occipital lobe hemorrhage and edema , disappearance of cisterna ambiens (Fig.3 A, B, C, D)." - Was there an MRI performed? MRI is generally considered gold standard when assessing for these things.

**Response:** It is a pity that MRI was not performed due to the rapid deterioration of the patient's condition, for critical activities for diagnosis and treatment. However, we have done cerebral angiography as soon as possible to make a definitive diagnosis for CVST. (P4, L30, P5, L1-3)

17. Case Presentation – "The neurological deterioration succumbed sharply from consciousness to deep coma during the next 4 days after readmission." – Needs to be reworded. Poor English.

**Response:** The statements of “The neurological deterioration succumbed sharply from consciousness to deep coma during the next 4 days after readmission.” were corrected as “Finally, the neurological disorder deteriorated sharply from consciousness to die during the following four days after readmission.” (P3, L21-22)

18. Discussion – "The location and degree of invasion into the third ventricle, pituitary gland, and optic apparatus were ascribed to the possibility of evaluation of hypothalamic damage in craniopharyngioma patients." – Cannot understand what this sentence means. Needs to be reworded.

**Response:** We have deleted this content. (P3, L23)

