Reviewer's report

Title: A successfully treated case of herpes simplex encephalitis complicated by subarachnoid hemorrhage: a case report

Version: 1 Date: 23 April 2010

Reviewer: Shelley Pillai

Which of the following best describes what type of case report this is?: An unexpected event in the course of observing or treating a patient

Has the case been reported coherently?: Yes

Is the case report authentic?: Yes

Is the case report ethical?: Yes

Is there any missing information that you think must be added before publication?: No

Is this case worth reporting?: Yes

Is the case report persuasive?: No

Does the case report have explanatory value?: No

Does the case report have diagnostic value?: No

Will the case report make a difference to clinical practice?: No

Is the anonymity of the patient protected?: Yes

Comments to authors:

The case report of HSVE proven by Real Time PCR HSV-I is presented for documentation of a (Day 26 after admission) complication of subarachnoid haemorrhage preceded by CT Brain evidence (Day 5) of left amygdaloid body hemorrhagic necrotizing lesion (early hematoma in the course of HSVE).

Please clarify the following, and revise the case report.

1. There are no clear descriptions of psychopathology, other than ‘delusional thinking’. The first sentence in INTRODUCTION has a spelling error 'fetal' that should be 'fatal'
2. The CSF glucose is not mentioned for every LP done
3. The case report has emphasised on the relationship/correlation between CSF...
real time PCR and CSF HSV-I IgG & IgM which is not necessary. For diagnostics of HSVE, CSF real time PCR HSV-I is conclusive. Is this narrative (PCR versus HSV IgG/IgM) required in the case report?

4. The recommended course of Acyclovir is for 14-21 days; here the authors gave Acyclovir for only 10 days. Why? Why was Dexamethasone and intravenous Immunoglobulin added to the regimen?

5. On Day 11, Real time PCR HSV-I became negative, suggesting the eradication of HSV-I in CSF; why was antiviral treatment switched to parenteral vidarabine?

6. What was the indication of multiple LPs; Day 7, Day 11, Day 39?

7. It is difficult to logically conclude the aetiology for Day 26 deterioration in consciousness and desaturation; it is most likely due to right pulmonary artery thrombosis (Pulmonary embolism) rather than the CT evidence of subarachnoid haemorrhage with intraventricular extension. The CT evidence of a localised left perisylvian bleed with intraventricular bleed does not seem to have clinical relevance, and represent an incidental finding.

8. Is the aetiology of pulmonary embolism a well recognised thrombotic complication of intravenous immunoglobulin?

9. On Day 5 there is CT Brain evidence of hemorrhagic necrotizing process in the left amygdaloid body. The CSF after day 5 onwards shows increasing RBCs. This would suggest RBC diapedesis from the amygdaloid body into the adjacent CSF spaces. Perhaps an earlier CT than Day 26 would have shown subarachnoid bleed with intraventricular extension. This would mean that the subarachnoid bleed is not primary and secondary to the hemorrhagic necrotizing process in the left amygdaloid body.

10. I would certainly hesitate to advocate or recommend that anticoagulation is safe in the treatment of pulmonary thromboembolism with co-morbid intracerebral hematomas and subarachnoid bleeding. Would a viable alternative be percutaneous catheter thrombectomy/rheolytic thrombectomy?

The subarachnoid bleeding with intraventricular extension does seem to be an extension of the left amygdaloid body hemorrhagic necrotizing process rather than unexpected DE-NOVO subarachnoid bleed complicating HSVE. Furthermore, previous reports of complicating intracerebral hematoma either early or late in the course of HSVE, occurred in the same areas of abnormal signal intensity on MRI (encephalitic/cerebritis areas) eg report by Jabbour. New areas of hemorrhage have also been reported. Why did anticoagulation in your case spare these "encephalitic areas" as shown in the initial MRI (Fig A/B)?

**Quality of written English:** Needs some language corrections before being published

**Declaration of competing interests:**

I declare that I have no competing interests