Author’s response to reviews

Title: Cerebral vasculitis and lateral rectus palsy: two rare central nervous system complications of dengue fever: Two case reports and review of the literature

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Author’s response to reviews:

Dr Itzhak Brook
Editor
Journal of Medical Case Reports

Dear Dr Brook,

Submission of revised paper “Cerebral vasculitis and lateral rectus palsy: two rare central nervous system complications of dengue fever: Two case reports and review of the literature (JMCR-D-17-00728)”.

Thank you for your email dated 8th February 2018, enclosing the reviewers’ comments. We would like to thank you and the reviewers for careful and thorough reading of our manuscript and for the thoughtful comments and constructive suggestions.
We have carefully reviewed the comments and have revised the manuscript accordingly. Our responses are given in a point-by-point manner below and the changes to the manuscript are highlighted in yellow colour. We hope that the changes that we made resolve all the reviewer’s concerns.

We thank you once again for the time and interest and look forward to hearing from you in due course.

Sincerely,

Dr H. M. M Herath

Response to the reviewer: ( available in the attached cover letter as well )

We wish to thank you for accepting our manuscript and giving a positive feedback. We have answered each of your comments below.

Comment 1- The case reports should include past medical, social, environmental, family and employment history.

• Reply – We have included the above details in relevant places in the manuscript. Please see the followings

An otherwise healthy, 53-year old female office worker, from Southern Province, Sri Lanka presented to a local hospital with an acute febrile illness with no apparent focus of infection.
A 57-year old previously healthy female school teacher was admitted our unit with a history of fever, headache, malaise, nausea and anorexia for 3 days duration.

Comment 2- What medications were the patient on prior to diagnosis?

• Reply- Both the patients were previously healthy and hence not been on any long term medications.

Comment 3 - Did the patients smoke, and/or consume alcohol?

• Reply – Alcohol and smoking history is included in revised manuscript.

  ❖ Case 1- She had no significant past medical illnesses and did not smoke or consume alcohol.
  ❖ Case 2- She did not smoke or use alcohol or other recreational drugs.

Comment 4 - Give detailed physical and neurological examination on admission. What was the temperature, pulse, blood pressure and temperature, on admission? (in both cases)

• Reply- Information on physical examination is also revised in the manuscript and new sentences now read

  ❖ Case 1- On admission to our unit, she was hemodynamically stable with a blood pressure of 112/74 mmHg, pulse rate of 84/min, afebrile, but was slightly drowsy with a GCS of 13/15.
  ❖ Case 2- On examination, she had a temperature of 39.50C and was hemodynamically stable with a pulse rate of 66/min and blood pressure of 112/66 mmHg with no significant postural drop. Rest of the examination was unremarkable.
Comment 5- Please provide a reference and discuss what are the Guidelines stated in "She was observed and managed in the next 48 hours of critical phase according to the established national guidelines on dengue management." This should be in the Discussion section and also in the Case Presentation describe how the patients were managed. (procedures, medications with doses and duration).

- Reply- The reference related to above guideline was included in the revised manuscript and new section on management of dengue fever according to above guideline was included in the discussion section as well.

- Case 1- When it comes to the treatment, the mainstay of treatment of dengue infection and its associated CNS complications is supportive therapy based on locally available guidelines [7, 12, 23, 25]; however, steroid may have a place in some of the immune mediated CNS complications. There is some evidence that CNS complications such as acute disseminated encephalomyelitis (ADEM)[26, 27], and myelitis[25, 28] had a favourable response to steroid. Our patient too had a good response to intravenous steroid (dexamethasone) and it may suggest that underlying immune mediated pathological process is the most likely reason for the CNS manifestation in our patient.

- Case 2 Specific therapies, such as steroid or immunoglobulin are not generally required in the management of dengue-related abducens nerve palsy [9, 29, 30]. Our patient too was managed with supportive therapy with fluid and paracetamol during the acute stage. She had complete recovery from the nerve palsy within the first four-week of the illness. Similar to our patient, patients with dengue-associated cranial nerve palsies, including abducens nerve palsy, Bell's palsy and oculomotor nerve palsy, have been reported to improve without any specific therapy[9, 33]. The prognosis for dengue-related cranial nerve palsies was good, and complete recovery was observed in all reported cases.[9, 25, 33]

Comment 6- Give information about follow-up for at least 6 months.

- Reply – As there was near normal recovery in both cases, they were followed up in our unit only for one month. This information was included in the revised manuscript.
Comment 7- Discussion – add a paragraph at the beginning of the Discussion that summarizes the cases and describes what is unique in this case compared to what is available in the literature.

• Reply- this section has been included in the revised manuscript as suggested