Author's response to reviews

Title: Post-stroke epilepsy as the presenting feature of Cerebral Misery Perfusion: a case report

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Version: 3 Date: 13 June 2009

Author's response to reviews: see over
Dear Editor,

Re.: JMCR article MS: 1898918655247708 - Post-stroke epilepsy as the presenting feature of Cerebral Misery Perfusion: a case report

We thank you for your opportunity to review and respond to the comments made by the peer-reviewers concerning our article. We acknowledge both reviewers’ expertise in this area, particularly that of Professor Baron. We have attempted to address their concerns whilst keeping the article accessible to a generalised readership.

With regard to the first reviewer (Dr Ali Mohamed)’s points:

1. We have added the additional reference to Prof Baron’s paper as suggested.

With regard to the second reviewer (Prof Baron)’s points:

1. We believe that our patient did present with focal seizures with secondary generalisation following a stroke. This subsequently led, through the steps described, to a diagnosis of cerebral misery perfusion using BOLD contrast fMRI. The presentation with seizures is central to the story and it also provides the generalist with a point of entry to the difficult subject of cerebral misery perfusion. We therefore wish to keep the presentation with seizures at the core of our article. To allow us to do so, whilst satisfying the reviewer’s recommendations, we have made the following changes:

- The sentences: “On several of these occasions he described loss of consciousness preceded by right sided weakness. These episodes were variably associated with involuntary jerky movements of his body, starting on the right side” have been deleted. The vagueness here was meant to convey some of the vagueness in the history provided by the patient, however we accept that this might be read as vagueness of narrative on our part. We have substituted the sentence: “He described right-sided weakness and jerking movements prior to loss of consciousness.”
• We have added a brief discussion of the mechanisms of post-stroke epilepsy and discussed the interplay between this diagnosis and the evidence of recurrent strokes on repeat MRI scanning. This can now be found at the beginning of the discussion section.

2. We have included details of anti-epileptic medication, in this case sodium valproate.

3. We accept the point concerning limb-jerking TIAs. We had not mentioned these in our initial report as we regarded this to be an unlikely explanation for our patient’s limb jerking. Our patient experienced subsequent generalisation and loss of consciousness, making epilepsy a much more likely diagnosis. We have now made this thought-process explicit in the discussion by reference to the paper by Han et al.

4. Under the heading “minor points”, the reviewer suggests a number of supplementary references supporting our argument. We have included from these the Momjian-Major paper because this is useful review which neatly summarises the bulk of the literature in cerebral imaging for misery perfusion.

5. We have changed the reference for the JET trial to the more accessible one suggested.

6. It is suggested that we include the method used to look for intramural haematoma on MRI, we have checked our record and now verify in the text that this was on standard neck MRI. We have modified the text accordingly.

7. We have clarified the areas affected by the patient’s hemiparesis – this was arm, leg and face – this is now clear in the text.

8. We have amended the legend for Figure 2 to include the phrase, “This is most prominent in the watershed territories”

9. We accept the points surrounding conduct of the EC-IC bypass study but feel it would be inappropriate to accuse the authors of this study of “lack of insight”. We have therefore simply removed the phrase “largely because these were under development at the time.” leaving the reader to draw their own interpretation of this work.

In addition to the above, we have substituted a more recent article by Goode et al for the previously quoted work by the same authors. We believe the reference now quoted more completely outlines current work in our unit to develop and validate the BOLD MRI technique, as used in this case.
We have enclosed the revised version of our article. We hope that we have addressed the reviewers’ concerns sufficiently.

We hope that you accept our revised article for publication and look forward to hearing from you in the near future.

Yours faithfully,

Dr Adam L Gordon
Dr Stephen Goode
Dr Olympio D’Souza
Prof Dorothee Auer
Dr Sunil K Munshi