Reviewer's report

Title: An uncommon case of random fire-setting behavior associated with Todd paralysis

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Reviewer: Hiroshi Matsuda

Reviewer's report:

This article describes brain perfusion SPECT images in a young man with a sudden onset of bizarre and random fire-setting behavior. Although this case report seems to be very interesting, there are several following issues;

1. Background) Unusual abbreviation of PP (postictal paresis) had better not be used.

2. Neuroimaging data, 2.4) Fig.1 did not show MRI findings.

3. Neuroimaging data, 2.4) Ref. 8 is not related to eZIS.

4. Neuroimaging data, 2.4) What tracer was used for brain perfusion SPECT? Authors should clarify.

5. Neuroimaging data, 2.4) Original SPECT images in ictal and interictal phase should be demonstrated.

6. Neuroimaging data, 2.4) Details of previously established normal database at author’s institute were not described. Please cite previous reference.

7. Neuroimaging data, 2.4) eZIS results are shown in Fig.2 not in Fig.1.

8. Neuroimaging data, 2.4) Details of the way to acquire ictal perfusion SPECT in this patient have to be described. When was the tracer injected after the onset of ictus?

9. Neuroimaging data, 2.4) Authors described that eZIS revealed hyperperfusion in frontal cortex. However authors described hypoperfusion in frontal cortex in this patient. Authors may be mixed up in the evaluation of eZIS results. Again authors should demonstrate original SPECT images along with eZIS results.

10. Fig.2, Fig.3 eZIS results) Lower and upper limit of Z-score had better being set to 2 to 6 with extent threshold of 300 pixels in Fig.2. Similarly Lower and upper limit of Z-score had better being set to 1 or 2 to 6 in Fig.3.


12. Conclusion) Authors had better refer to SPECT findings.

Level of interest: An article whose findings are important to those with closely related research interests
Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare that I have no competing interests.