Reviewer’s report

Title: Subarachnoid hemorrhage after transient global amnesia caused by cerebral venous congestion: case report

Version: 0 Date: 10 Feb 2018

Reviewer: Bum soon Kim

Reviewer’s report:

The authors report and discuss a case presenting a high signal intensity lesion at medial temporal area on DWI who presented with TGA followed by a SAH. This case may be valuable to report, as it may be helpful verifying the mechanism of lesions appearing with TGA. But I do have several concerns.

Major point)

#1 What was the situation of the first TGA attack? any hyperventilation? or stressful condition?

#2 Venous congestion causes breakdown of blood-brain barrier and causes vasogenic edema, which usually shows high signal intensity lesion on ADC map.

Instead a high signal intensity lesion on DWI with a dark signal on ADC map is cytotoxic edema, which is usually due to arterial ischemia.

This patient showed a high signal intensity lesion on B1000 image and a low signal intensity on ADC map. What is the authors’ opinion?

#3 Valsalva also induce Rt-to-Lt shunt, and increase blood flow to the posterior circulation. Did the authors evaluate any possibility of PFO-stroke (i.e. transesophageal echocardiography or TCD-bubble test?)

#4 though this case supports that venous congestion is the mechanism of TGA, I would like the authors to show other hypothetical mechanisms of TGA briefly in the discussion section, as the issue is not conclusive by a case report

Minor point)

#1 Is the patient 57 or 58 years-old? The age differs between abstract and main manuscript.

#2 Presenting arterial image (MRA or DSA) may be helpful to reveal that there was no RCVS. Some reports show that TGA can be a presentation of RCVS (SAH also).
Are the methods appropriate and well described?  
If not, please specify what is required in your comments to the authors.  

No

Does the work include the necessary controls?  
If not, please specify which controls are required in your comments to the authors.  

No

Are the conclusions drawn adequately supported by the data shown?  
If not, please explain in your comments to the authors.  

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?  
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.  

Not relevant to this manuscript

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Please indicate the quality of language in the manuscript:  

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