Reviewer's report

Title: Usefulness of Multimodal MR Imaging in the Differential Diagnosis of HandL and Acute Ischemic Stroke

Version: 1 Date: 8 April 2010

Reviewer: Marcel Aries

Reviewer's report:

Major compulsory revision: Well written case report. However one big issue is important considering the main conclusion of this report and to provide additive value for clinicians. The authors would like to stress the importance of neurologists recognising HANDL. Stroke neurologist always would like to have more diagnostic facilities in a patient with acute deficits (like CT/TCD/MRI/SPECT/CSF examination) to be more accurate about the diagnosis but time and costs also have to be considered. Therefore it would be interesting to ask the authors to provide a practical advice what to do with a patient like in the case report (acute deficit and red flags: headache and vomiting) on the emergency room and discuss the important question ‘Should we thrombolyse as fast as possible (within 4,5 hrs) or not? and ‘which technique should be applied to be most accurate (anno 2010)’ Should we only do TCD (abnormal values in posterior and anterior territories)? Or only MRI with diffusion weighted imaging (or is this in the hyperacute phase not sensitive enough) or fast CT angiography or CT perfusion? Or perhaps the clinical presentation is enough to abort thrombolysis and perform additional investigations on the ward? In order to do so I would advice to shorten the information about HandL in introduction and discussion because this has been provided before.

Minor essential revisions:

Was genetic testing of this person considered? I can remember that we had one pt once and we tested for sporadic familial hemiplegic migraine.

Level of interest: An article of importance in its field

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.