Reviewer's report

Title: May clinical neurophysiology help to predict the recovery of neurological early rehabilitation patients?

Version: 0 Date: 01 Oct 2015

Reviewer: Richard Rison

Reviewer's report:

Thank you for allowing me to review the manuscript entitled "May clinical neurophysiology help to predict the recovery of neurological early rehabilitation patients?" The author studied clinical and neurophysiologic data from over 800 patients at BDH-Clinic Hessisch Oldendorf. Median somatosensory, auditory, and visual evoked potentials along with electroencephalogram recordings took place within the first two weeks after admission. It was found that certain delayed waveforms and delta rhythms on the EEG were predictive of poor outcomes.

1. More clinical details about the population studied in needed. The broad categories are given in Table 4, but it would benefit the reader to know more (such as stroke anatomical localization; aneurysmal versus non-aneurysmal SAH, axonal versus demyelinating GBS, brain tumor localization, viral versus bacterial meningitis, etc.)

2. Co-morbid conditions: for example, how was a patient with a stroke and diabetic polyneuropathy accounted for (the peripheral waveforms may have been affected). And for that matter the GBS and spinal cord trauma patients.

3. Were confounding medications accounted for? (e.g., neuroleptics, benzodiazepines, etc.)

4. Did the same technician perform the studies? Technician quality may have affected the results.

5. Were there any imaging correlates with MRI's?

6. This is a retrospective review. Ethics committee approval was obtained, but is local Institutional Review Board permission needed to use the facilities data?

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

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

**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.

I recommend additional statistical review

**Quality of written English**
Please indicate the quality of language in the manuscript:

Acceptable

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