Reviewer's report

Title: Cerebral hypoxia, missing cortical somatosensory evoked potentials and recovery of consciousness

Version: 1  Date: 14 October 2013

Reviewer: Emily J. Gilmore

Reviewer's report:

Overall, this is an important contribution to the post-arrest literature even though it is not the first case of bilateral absent N20 response with return of consciousness. See reference – Andreas Bender et al. J Neurol (2012) 259:2481–2483. Bilateral loss of cortical SSEP responses is compatible with good outcome after cardiac arrest.

Major Compulsory Revisions:
1) What was the ROSC? Was the patient cooled? I realize the arrest was in 2003, but this should be explicitly stated.
2) What were the rest of the prognostic factors on day 3? There is no exam information - pupils, corneals, motor response (besides the myoclonus). What was the neuron specific enolase (if not performed, simply state)?
3) The SSEP’s should be a figure in the paper. It should be stated that although this patient had absent N20, preservation of the N20 does not guarantee a favorable outcome.
4) The following references should be included as well: Zandbergen EG, Koelman JH, de Haan RJ, Hijdra A (2006) SSEPs and prognosis in postanoxic coma: only short or also long latency responses? Neurology 67(4):583–586
6) The time course of the patient’s recovery as laid out in the article is a bit confusing. Starting with “6 months after cardiac arrest…” Please try to clarify. The “After one month” and “After two months” refer to months 7 and 8 from the arrest, correct?
7) 2nd paragraph of case presentation, sentence 2. “This letter triggered an interview with him…” Should this have been her as the patient is referred to as her/she throughout.
8) When talking about the MRI literature in the conclusions, would consider citing DM Greer’s recent case in Resuscitation, entitled “Unexpected good recovery in a comatose post-cardiac arrest patient with poor prognostic features.”
9) Finally, in the final paragraph of the report, the patient is referred to as
tetraplegic, but is actually quadriplegic, right?

**Level of interest:** An article of importance in its field

**Quality of written English:** Needs some language corrections before being published

**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.