Reviewer's report

Title: Clinical and physiological effects of transcranial electrical stimulation position on motor evoked potentials in scoliosis surgery

Version: 1 Date: 6 December 2009

Reviewer: Gregory M Mundis

Reviewer's report:

Thank you for taking the time to prepare this manuscript and being open to the following critiques:

Major Compulsory Revisions:
- Despite taking a significant amount of time reading the introduction (and conclusion), the question being asked in this manuscript is not clear. The last sentence of the introduction does states "we aim" etc, however, this statement is very unclear and the problem being addressed not defined in the introduction. The introduction needs to clearly make the case for why these two ways to record MEPs needs to be investigated and describe the potential clinical significance. The discussion is more clear, and explains the data well...I, however, failed to find what clinical significance you are trying to achieve until the last paragraph of the article.
- Please revise introduction to clearly state your objective and to make a case for this study: cross scalp may reduce false positives...etc.
- Knowing the end result and your findings the manuscript should be structured in such a way to make your conclusions stronger
- Describe REPORTED instances when MEPs using midline stimulation led to clinically relevant problems (paralysis, neuro deficit etc.)

Minor Essential Revisions
See comments in text of manuscript regarding spelling etc.

The conclusion was also slightly confusing. You need to restate what findings you are trying to explain and outline what you will explain and then explain it. This is mainly in reference to page 10. I feel this section lacks structure and direction (literature review portion)

Discretionary Revisions
- Consider having a clinical image of the two different techniques of obtaining MEPs as many surgeons who read this may benefit from this (can be a cartoon or actual image)

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