Reviewer's report

Title: Somatosensory Evoked Potentials suppression due to remifentanil during spinal operations; a prospective clinical study

Version: 1 Date: 8 March 2010

Reviewer: Michael G Irwin

Reviewer's report:

This is a very small study covering a very large age range of subjects. The content is interesting and clinically relevant. However, I have some concerns that need to be addressed:

The dose of remifenatnil is extremely large. Most anaesthetists use doses of 0.15 - 0.5 (at the very most) mcg/kg/min. This needs more discussion as the doses you used may not be clinically relevant. It would also have been interesting if you had used TCI to predict remifentanil concentrations and then incrementally increased the dose to determine at which level this suppression became most relevant. It is also worth mentioning that the PK of remi is such that the effects will dissipate rapidly on cessation of infusion, allowing the suppressant effect to wear off rapidly (presumably).

A dose of 0.8mcg/kg/min in an 88 year old is considerable - surprised there were no CVS effects.

Likewise it is not clear that propofol was titrated to effect. The methods indicate that everyone got the same dose despite the use of BIS. Aain one would expect considerable variation in requirements. Also propofol will affect SSEP & could have influenced your results (TCI would have been much better here also).

Stae model & version of BIS used. State name, model & origin of all monitors. Administered NOT administrated.

Why would esmolol be a substitute for remi??

There are only 2 figures in my MS.

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