Reviewer’s report

Title: Randomised controlled trial of gabapentin in Complex Regional Pain Syndrome type 1

Version: 1 Date: 24 May 2004

Reviewer: Miroslav M Backonja

Reviewer’s report:

General

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

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Discretionary Revisions (which the author can choose to ignore)

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ven de Vusse et al 2004 - CRPS and GBP - REVIEW

This randomized double blind placebo controlled crossover study was designed to study the efficacy of the anticonvulsant gabapentin (GBP) as treatment for pain in 58 patients with complex regional pain syndrome type 1 (CRPS1). Patients reported significant pain relief in favor of GBP in the first period. Therapy effect in the second period was less evident, resulting in no significant effect combining results of both periods. The CRPS patients had sensory deficits at baseline but were found to have reversal of these sensory deficits in GBP treated in comparison to placebo treated patients. It was concluded that GBP had a mild effect on pain in CRPS I and that it significantly reduced the sensory deficit in the affected limbs. In final conclusion, a subpopulation of CRPS patients may benefit from GBP.

This was a well designed and carefully conducted study with meticulous records. There are a few issues that need to be addressed and a few suggestions for revisions are made.

Authors acknowledge shortcomings of the cross-over design in their discussion, and as a coincidence or not, they came up with the results that were almost identical to those of Moulin et al 1995. If that is the case authors should justify the selection of the study design over parallel design. Regarding the same issue that second phase was an example of lack of response after negative (no benefit from treatment) experience they may consider making this distinction in their manuscript and place appropriate the emphasis for the each period.

In their description of the study population authors should provide information how many patients received specific treatments, such as blocks, before starting GBP study?

Page 4, Paragraph 1, Sentence 4 - states “... and were included when aged between 18 - 75 years old and when they had a visual analog score (VAS) for pain > 3.” - would be much more elegant if
stating “… if they were 18-75 years of age and had pain of <3, as rated on a visual analog score (VAS), where 0 is no pain and 10 is the worst pain imaginable.”

Page 6, Paragraph 4, Sentence 1 - states “A blinded independent investigator (STvdB) tested sensibility, allodynia and ….” – description of how sensibility and allodynia are tested should be provided, especially since this was one of the more obviously positive findings.

Table 3 is difficult to review without headings for each column so headings should be provided similar to SCL -90.

Figure 1 may better convey the message about the outcome of this study if it is presented as a line graph, rather as bar graph.

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

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

Declaration of competing interests: none