Reviewer's report

Title: Handwriting performance in the absence of visual control in writer's cramp patients

Version: 4 Date: 28 November 2005

Reviewer: Mitchell Brin

Reviewer's report:

The authors can't create the control condition which is requested and should be performed. In addition, there was some concern about having the arm in a rigid cast. This begs the need for 2 control conditions: a) one with visual control and b) one freehand, or a less restricted frame. Motor tasks by patients with dystonia will be affected by touch and pressure, and this should be addressed in a subsequent study. Nevertheless, these concerns do not mean that the science is not an addition to the general scientific literature. It just means that there is more work to be done. The conclusions are valid based on the data that is available. Indeed, I suspect that someone will read this and get new ideas for future work. It will take many years to hone and refine the overall study design - likely an exciting prospect. My recommendation is that the authors (mandatory) critique their own work and point out the limitations of the study in their manuscript. In addition, they should add the words "Preliminary" or "Initial" to the title. It could be like: "Handwriting performance....writer's cramp patients: Initial observations." This type of title, plus an internal critique of the limitations of the study should do it justice and it should then be appropriate for publication.

2. Page 3: the Marsden reference on the "difference" between simple and dystonic writers cramp is very outdated. Currently, movement disorder experts consider that writer's cramp is a form of focal dystonia. When it is restricted to writing and not any other task, it is called "task specific."

3: Page 3: Change "Usually writer's cramp..." to "Often writer's cramp...". This is because nearly everyone needs to write. In the same paragraph, insert the word "often" as follows: "The often painful muscle spasm..." The last sentence in that paragraph should read: The often painful muscle spasm...can cause considerable physical disability and handicap and secondary psychological problems; some patients need to change their occupation or go on disability."

4. Page 5, top of the page, "In their study they presented..." Also, delete "Therefore" in the next sentence since it is being used in the next sentence.

5. Page 6: The authors say that the control subjects did not have any history of neurological disease. If they were examined, they should say that the neurological examinations were normal. At the end of the page, "The absence of eye movements was monitored by vertical and ..."

6. Page 9 in the results: It is interesting that there was one control subject that was slow. They authors should comment that there was no clear neurological reason for this.

7. page 12: At the borrom, I would begin another paragraph with "Another contributing factor..." Also, it says "They found that int he writer's cramp..." Please clarify who "They" is.