Reviewer's report

Title: Quantitative EEG findings in depressed patients with rapidly changing psychiatric symptoms: A controlled study from an acute psychiatric department

Version: 1 Date: 4 July 2008

Reviewer: Pedro Coutin-Churchman

Reviewer's report:

This is a very interesting paper focusing in a rarely visited area of EEG research in psychiatry, such as the "real world" patients in true noncontrolled clinical settings. The work is well funded in current research in the field, in an area of interest such as depression and its relation with organic brain dysfunction. The authors acknowledge the inherent limitations of their limited sample and selected adequate nonparametric statistics. In general, the paper reflects a research endeavor oriented in the right way, is well written and structured. I look forward to know further results from this research group. However, I would suggest some minor work before final form is reached.

- Minor Essential Revisions:

METHODS
1) Can you state the criteria for artifact rejection? Did you include segments with epileptiform activity in FFT analysis?

RESULTS, QEEG:
2) Can you state explicitly which criteria you used for selecting cutoff thresholds in your analysis, like 8.9 uV for delta activity amplitude or 0.1 uV for side difference.

- Discretionary Revisions:

RESULTS- CLINICAL EEG SECTION
3) Your conclusions would be better supported if you rewrite the paragraph focusing on your positive finding (greater number of EEG abnormal features after three registrations in AUDS patients), reducing the weight of "nonsignificant trends" probably due to low number of subjects and low power of nonparametric statistics.

RESULTS-BACKGROUND DATA:
4) Do "controls" mean "using antiepileptic drugs"?

Level of interest: An article of importance in its field

Quality of written English: Acceptable

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'