Reviewer's report

Title: “ADHD children and adolescent - Neurofeedback treatment: A randomized controlled clinical trial - Effect of core symptoms”

Version: 1 Date: 11 April 2012

Reviewer: Carl Anderson

Reviewer's report:

The randomized control research study submitted by Duric et al. describes the use of neurofeedback (NFT) and methylphenidate (MPH) in the treatment of 91 children and adolescents with ADHD. Duric et al. utilized three treatment groups: NFT alone; medication alone MED; and a combination of NFT + MED. Clinical measures of attention, hyperactivity and the sum of both measures (total score) were tested statistically. Hyperactivity scores were significantly lowered in all three groups after 30 sessions of treatment. However, only attention scores were significantly altered with the combination of NFT + MED.

This study is novel and appears to be of sound design. However some critical experimental details of treatment with MPH appear to be lacking.

Major Compulsory Revisions

The details of treatment with MPH (e.g. dosing range; form of medication) need to be more fully described and the presence or absence of titration of children on MED dose over the 30 sessions must be described. For example, the MTA study found that only 25% of children treated in an outpatient setting with MPH showed significant improvement vs. 57% of children who were clinically titrated on MPH dose.

Minor Essential Revisions

Figure 2 should be removed as the information is duplicated in table 2.

It would be helpful to have a better understanding of why children dropped out of the study and specifically how many out of each group. For example, was the drop out higher for MED or NFT groups?

Text:

Page 6, 2nd paragraph line 1; remove extra “and,”

Page 13, Discussion, 2nd paragraph comma missing between “gender intelligence”.

Page 18, ref 15. Change ADDH to ADHD.

Page 19, ref 23. http://wwwthoughttechnologymcom/bioinfhtm does not appear to work as a link, please correct and provide more information about the company.
Discretionary Revisions

Could you describe why a sham NFT group was not included, this would account for possible placebo effects with NFT?

**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