A new neurofeedback protocol for depression.

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Abstract

CONTEXT: Neurofeedback represents an exciting complementary option in the treatment of depression that builds upon a huge body of research on electroencephalographic correlates of depression.

OBJECTIVE: The objectives of this article are threefold: review the literature on neurofeedback protocols for depression; introduce a new protocol, which aims to synthesize the best qualities of the currently available protocols; and present the results of a small clinical experiment with the new protocol.

METHOD: Structured survey of the literature; software development; clinical trial with one subject, submitted to ten sessions of neurofeedback (one hour each).

RESULTS: Currently there are twenty-one articles in neurofeedback for depression, among which only six present original experimental results. All of them report positive results with the technique. The most used protocols focus on Alpha inter-hemispheric asymmetry, and Theta/Beta ratio within the left prefrontal cortex. Our new protocol integrates both dimensions in a single circuit, adding to it a third programming line, which divides Beta frequencies and reinforces the decrease of Beta-3, in order to reduce anxiety. The favorable outcome of our clinical experiment, suggests that new research with this protocol is worthwhile.

PMID: 21568194 [PubMed - indexed for MEDLINE]