Repetitive Transcranial Magnetic Stimulation for the Treatment of Fibromyagia: An Open-Label Trial

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Introduction

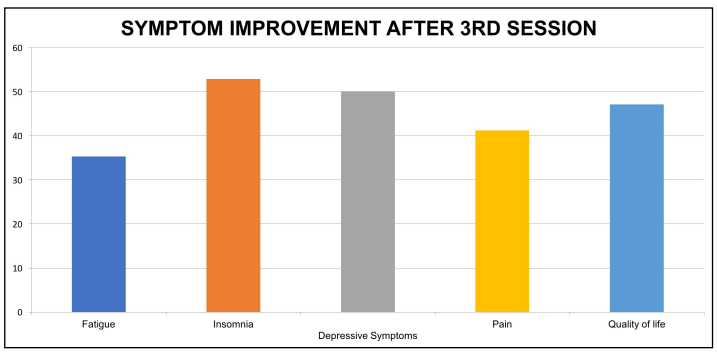
Repetitive Transcranial Magnetic Stimulation (rTMS) is a noninvasive neuromodulation technique that has been used to treat patients with fibromyalgia (FM). Data regarding to its efficacy is lacking.

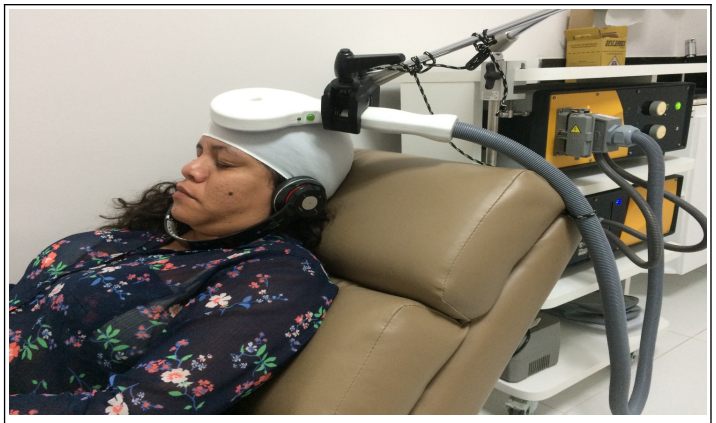
Methods

Open-label uncontrolled clinical trial where 17 subjects diagnosed with FM were enrolled. The recruitment period was from January 2015 to May 2017 and all subjects should have received rTMS in the left prefrontal cortex. The sessions were performed in a series of 3 to 5 consecutive days with maximum break of 2 days between the series. A minimum of 10 sessions was required. Parameters used: frequency (10Hz), cycles of 10 stimuli with pause of 20 seconds between them. 20 minutes was the length of each session. Motor threshold was adjusted according to the acceptance of patients. Variables such as side effects, pain, depressive symptoms, insomnia, fatigue, quality of life and side effects were assessed after each session.

Results

- Among the 17 patients, 88.2% were women.
- Mean sample age of 55.7 years (ranging from 31-81 years) .
- 41.2% reported significant improvement of pain after 3rd rTMS session.
- Improvement of depressive symptoms was observed after 3rd sessions in 50% of patients.
- Improvement of insomnia and fatigue was reported after 3rd sessions in 52.9% in 35.3% of patients, respectively.
- Increased quality of life was seen in 47.1% of patients after the 3rd session.
- Three patients report mild and transient symptoms such as tinnitus and headache.





rTMS session

Learning Objectives

To evaluate the efficacy and safety of rTMS as a treatment for FM in a center for diagnosis and treatment of pain.

Conclusions

In our experience, rTMS had a significant influence on the reduction of diffuse pain in patients with fibromyalgia. In addition, it showed to be a good option for rapid pain relief since most patients reported relief of symptoms after the third session. rTMS was well tolerated with minimal adverse effects. Additional studies are needed to determine optimal protocols for the use of rTMS in the treatment of FM.