Title: Fibromyalgia Pain and Depression: An Update on the Role of Repetitive Transcranial Magnetic Stimulation

Abstract

Fibromyalgia is a musculoskeletal pain of different parts of the body, which is also associated with fatigue, lack of sleep, cognition deficits, family history, gender bias, and other disorders such as osteoarthritis and rheumatoid arthritis. It is generally initiated after trauma, surgery, infection, or stress. Fibromyalgia often coexists with several other conditions or disorders such as temporomandibular joint disorders, bowel and bladder syndrome, anxiety, depression, headaches, and interstitial cystitis. While there is no permanent cure for fibromyalgia, some interventions are available with multiple side effects. rTMS (repetitive transcranial magnetic stimulation), a noninvasive management strategy is used widely for various pain-related etiologies including fibromyalgia in both the laboratory and clinical settings. In this Review, we discuss the role and mechanism of action of rTMS in fibromyalgia patients and on associated comorbidities including anxiety, pain, depression, neurotransmitter alterations, sleep disorders, and overall quality of life of the patients suffering from this chronic problem. We also provide an update on the rTMS application in the clinical trials of fibromyalgia patients and prospective management therapy for multiple problems that these patients suffer.

Keywords: Fibromyalgia; cognition; depression and anxiety; genetic polymorphism; musculoskeletal pain; neurotransmitter; quality of life; rTMS; sleep.

For more details: https://pubmed.ncbi.nlm.nih.gov/33397091/#article-details