

Effect of Magnetic Field in Treatment of Lower Back Myofascial Pain Syndrome: A Randomized Controlled Trial

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Abstract : Background: Low back pain affects about 60% to 90% of the working-age population in modern industrial society. Myofascial pain syndrome is a condition characterized by muscles shortening with increased tone and associated with trigger points that aggravated with the activity of daily living. Purpose: To examine the effects of magnetic field therapy in patients with lower back myofascial pain syndrome. Methods: Thirty patients were assigned randomly into two groups. Subjects in the experimental group (n=15) with main age of 36.73 (2.52) received traditional physical therapy program (Infrared radiation, ultrasonic, stretching and strengthening exercises for back muscles) as well as magnetic field, and control group (n=15) with main age of 37.27 (2.52) received traditional physical therapy only. The following parameters including pain severity, functional disability and lumbar range of motion (flexion, extension, right side bending, and left side bending) were measured before and after four weeks of treatment. Results: The results showed significant improvement in all parameters in the experimental group compared with those in the control group. Interpretation/Conclusion: By the present date, it is possible to conclude that a magnetic field is effective as a method of treatment for lower back myofascial pain syndrome patients with the parameters used in the present study.

Keywords : magnetic field, lower back pain, myofascial pain syndrome, biological systems engineering

Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development

Conference Location : Chicago, United States

Conference Dates : December 12-13, 2020