

6th World Congress on

PHYSIOTHERAPY AND REHABILITATION

November 12-13, 2018 Dubai, UAE

Pulsed electromagnetic field: A review in musculoskeletal conditions

Radhika Thakkar

SBB College of Physiotherapy, India

Statement of the Problem: Musculoskeletal problems like knee osteoarthritis, Low Back Pain (LBP) and non-healing bone Fractures are common conditions leading to pain, reduction in function and person's quality of life. Thus, this review was conducted to determine the effect of treatment with Pulsed Electromagnetic Field (PEMF) in musculoskeletal conditions like LBP, knee osteoarthritis and non-healing fractures on pain, functionality and quality of life.

Methodology & Theoretical Orientation: Databases were searched for systemic reviews and meta-analysis using PEMF therapy in musculoskeletal conditions. Keywords used were PEMF, musculoskeletal conditions, osteoarthritis, LBP. Three articles were found regarding knee osteoarthritis, LBP and non-healing long bone fractures.

Findings: One systemic review found that people with osteoarthritis who received PEMF therapy experienced pain relief of 15 points more compared to fake treatment, rating their pain to be 26 points lower on a scale of 0-100. Second systemic review was found about individuals suffering from LBP. Six studies were eligible in qualitative analysis and five in quantitative, scoring an overall 6.8 points according to PEDro Scale. The effect sizes indicated a remarkable reduction in pain intensity, favoring the PEMF groups. Third systemic review was found about the delayed union and non-union of long bone fractures, suggesting that PEMF stimulation may offer some benefit in its healing process.

Conclusion & Significance: As per the evidence, PEMF therapy may provide moderate benefits for osteoarthritis sufferers by relieving pain, which in addition to it, improves functionality in individuals with LBP. More definitive conclusions on treatment effect of non-healing fractures await further studies, since it is inconclusive and insufficient to inform current practice. Further research is needed to confirm PEMF therapy benefits in terms of physical function and quality of life in osteoarthritis sufferers and individuals with LBP, with standardized protocols and larger samples to achieve stronger conclusions.

Biography

Radhika Thakkar is pursuing under-graduate degree in Physical Therapy from SBB College of Physiotherapy, India. She has a keen interest in musculoskeletal rehabilitation and sports along with research. She has won awards for speech, recitation, poster-making and debate competitions and has actively participated in physiotherapy awareness programs conducted by the college.

rttradhika@gmail.com

Notes: