Medical PEMF Studies



PAIN

Evaluation of the efficacy of pulsed electromagnetic therapy in the treatment of back pain: a randomized controlled trial in a tertiary hospital in Nigeria.



1. West Indian Med J. 2013 Mar; 62(3):205-9.

Oke KI(1), Umebese PF(2).

Author information:

(1)Department of Physiotherapy, University of Benin Teaching Hospital, Benin City, Edo State, Nigeria. kayodeoke2001@yahoo.com (2)Department of Orthopaedics and Traumatology, University of Benin Teaching Hospital, Benin City, Edo State, Nigeria.

Musculoskeletal system disorders (MSDs) are amongst the most commonly encountered problems in orthopaedics and physiotherapy practice all over the world and back pain is amongst the most prevalent of musculoskeletal presentations encountered in clinical practice. The attendant deformities, huge economic loss among many other sequelae on the affected individuals have always informed the search for cost-effective treatment modalities that are non-invasive and are devoid of or at

Medical PEMF Studies



least have minimal side effects. This randomized controlled trial was conducted to assess the therapeutic efficacy of the use of a non-pharmacological device [pulsed electromagnetic field (PEMF)] modality in the treatment of back pain. A total of 16 patients (mean age: 42.82 +/- 8.63 years) with back pain without radiculopathy who met the inclusion criteria were purposively enrolled in the study. Patients were randomly assigned into two groups. Group A had eight patients treated with PEMF plus medications (analgesics, nonsteroidal anti-inflammatory - diclofenac sodium) while the eight patients in group B were treated with only standard medications. The PEMF device was applied in group A four times a day for the period the patients were admitted (maximum of nine days). Measured outcome parameters were reduction in pain as assessed with numeric pain rating scale (NPRS) and improvement in functional ability status as assessed with functional activity scale (FAS). Obtained data were analysed with paired and independent t-test to test the significant efficacy of the treatment outcomes in the two groups. There was a statistically significant faster pain relief and resumption of active functions in patients treated with PEMF plus analgesic compared with the rates exhibited by patients treated with standard analgesics alone. These results suggest that PEMF therapy is beneficial in reducing pain and disability in patients with back pain and should be made part of holistic cape for back pain. Further studies using PEMF on larger patient populations are advocated to further confirm the efficacy of PEMF therapy in back pain management.

PMID: 24564041 [PubMed - indexed for MEDLINE]