

Efficiency of pulsed electromagnetic fields on pain, disability, anxiety, depression, and quality of life in patients with cervical disc herniation: a randomized controlled study

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Authors

[Hattapođlu E](#)¹, [Batmaz İ](#)¹, [Dilek B](#)², [Karakoç M](#)¹, [Em S](#)¹, [Çevik R](#)¹.

Author information

1

Department of Physical Medicine and Rehabilitation, Faculty of Medicine, Dicle University, Diyarbakır, Turkey

2

Department of Physical Medicine and Rehabilitation, Faculty of Medicine, Dokuz Eylül University, İzmir, Turkey

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Abstract

Background/aim: In this study, it was aimed to investigate the effects of pulsed electromagnetic field (PEMF) therapy on pain, disability, psychological state, and quality of life in cervical disc herniation.

Materials and methods: Patients were randomly divided into two groups, including Group 1, which received a therapy consisting of transcutaneous electrical nerve stimulation (TENS), hot pack (HP), and PEMF, and Group 2, which received a magnetic field (sham magnetic field) without current flow in addition to TENS and HP therapy. Pain was assessed by a visual analog scale (VAS, 0–10 cm). The other outcome measures were function (Neck Pain and Disability Scale), anxiety-depressive mood (Hospital Anxiety and Depression Scale), and quality of life (Nottingham Health Profile). All evaluations were performed at baseline, in the 3rd week, and in the 12th week after treatment.

Results: A significant improvement was found in the neck pain, disability, depression, anxiety, and quality of life scores of both groups after treatment when compared to those before treatment. However, in the comparison between changes within groups, significant improvements were determined only in the VAS and Nottingham Health Profile sleep subparameter in the 12th week after treatment compared to those before treatment.

Conclusion: PEMF therapy in cervical disc herniation can be used safely in routine treatment in addition to conventional physical therapy modalities.