Radial shock wave therapy in the treatment of lateral epicondylitis

E. Ilieva
Department of Physical and Rehabilitation Medicine, Medical University, Vassil Aprilov 15a, 4002 Plovdiv, Bulgaria
E-mail address: elena_md@yahoo.com.

Keywords: Radial shock wave therapy; Lateral epicondylitis

Introduction:—Lateral epicondylitis is one of the most common overuse syndromes. There are different treatment modalities and their effectiveness is rather controversial.

Aim.—Evaluate the effect of radial shock wave therapy in lateral epicondylitis.

Material and methods.—Treat with one session per week for 5 weeks patients with lateral epicondylitis. A session consisted of 2500 shocks at 2 bars. Frequency was 5 Hz and 10 Hz for the last 500 shocks. Pain was evaluated before treatment, at 5, 15 and 12 months after treatment at rest, at palpation and during Thomsen’s test (VAS) and the Patient-Rated Tennis Elbow Evaluation (PRTEE) questionnaire were performed.

Results.—Sixteen patients, mean age 47.2 ± 2.3 years 15.6 ± 4.6 lasting for months were included in the study.

VAS values were:
- at rest from 3.75 ± 0.49 before therapy to 1.94 ± 0.46 at 3 months and 0.69 ± 0.38 at 1 year;
- at palpation from 7.44 ± 0.38 before therapy to 3.56 ± 0.40 at 3 months and 1.46 ± 0.56 at 1 year;
- at Thomsen test from 5.87 ± 0.46 before therapy to 2.5 ± 0.40 at 3 months and 1 ± 0.38 at 1 year.

PRTEE showed significant reduction of pain and functional improvement. The total score improved from 56.75 ± 2.34 before therapy to 27.53 ± 3.7 at 3 months and 13.69 ± 4.48 at 1 year.

Discussion/Conclusion.—Radial shock wave therapy can be recommended as second line treatment in lateral epicondylitis evolving for more than 6 months when other conservative treatments have failed.

Further reading


P009-e
Gait analysis: An objective measurement for subgrouping fibromyalgia patients

1 Clinique, 8, rue des Chevaux, 53000 Laval, France
2 Faculté de pharmacie, CHU d’Angers, 49005 Angers, France
3 Service de médecine Interne, CHU Saint-Antoine, 75012 Paris, France
4 Service de rhumatologie CHU de Grenoble, 38043 Grenoble, France
5 Service de médecine interne CHU de Lille, 59000 Lille, France
6 Service de la douleur CHU de Nice, 06002 Nice, France
7 Département recherche, Pierre-Fabre médicaments, 31319 Labège Innopol, France
8 Département épidémiologie, LN Pharma, 31000 Toulouse, France
9 Service des explorations fonctionnelles respiratoires, CHU de Toulouse, 31059 Toulouse, France
10 Service de rhumatologie, CHU de Nantes, 44093 Nantes, France
*Corresponding author. E-mail address: dr.auvinet@gmail.com.

Keywords: Fibromyalgia; Gait analysis; Subgrouping

Background.—Fibromyalgia (FM) is a heterogeneous syndrome and its classification into subgroups calls for broad-based discussion. FM subgrouping, which aims to adapt treatment according to different subgroups, relies in part, on psychological and cognitive dysfunctions. Since motor control of gait is closely related to cognitive function, we hypothesized that gait markers could be of interest in the identification of FM patients’ subgroups. This controlled study aimed at characterizing gait disorders in FM, and subgrouping FM patients according to gait markers such as stride frequency (SF), stride regularity (SR), and cranio-caudal power (CCP) which measures kinesia.

Methods.—A multicentre, observational open trial enrolled patients with primary FM (44.1 ± 8.1 years), and matched controls (44.1 ± 7.3 years). Outcome measurements and gait analyses were available for 52 pairs. A 3-step statistical analysis was carried out. A preliminary single blind analysis using k-means cluster was performed as an initial validation of gait markers. Then in order to quantify FM patients according to psychometric and gait variables an open descriptive analysis comparing patients and controls were made, and correlations between gait variables and main outcomes were calculated. Finally using cluster analysis, we described subgroups for each gait variable and looked for significant differences in self-reported assessments.

Results.—SF was the most discriminating gait variable (73% of patients and controls), SF, SR, and CCP were different between patients and controls. There was a non-significant association between SF, FIQ and physical components from Short-Form 36 (P = 0.06). SR was correlated to FIQ (P = 0.01) and catastrophizing (P = 0.05) while CCP was correlated to pain (P = 0.01). The SF cluster identified three subgroups with a particular one characterized by normal SF, low pain, high activity and hyperkinesia. The SR cluster identified two distinct subgroups: the one with a reduced SR was distinguished by high FIQ, poor coping and altered affective status.

Conclusion.—Gait analysis may provide additional information in the identification of subgroups among fibromyalgia patients. Gait analysis provides relevant information about physical and cognitive status, and pain behavior. Further studies are needed to better understand gait analysis implications in FM.