

Abstract

Title: Evaluation of cryotherapy efficacy in medial and lateral epicondylitis

Objectives: Finding out whether the combination of cryotherapy and manual physiotherapy statistically significantly affects the pain and function of the elbow joint in lateral and medial epicondylitis. Furthermore, a comparison of the group undergoing manual physiotherapeutic treatment with cryotherapy as an additive component of rehabilitation versus the group undergoing manual therapy only.

Methods: Data collection was performed using a standardized Patient-Rated Elbow Evaluation (PREE) questionnaire with Visual Analogue Scale (VAS), through which probands evaluated the effect of procedures used in the control and experimental group on elbow pain and function. To determine the efficacy of examined intervention, the data collected before and after the experiment were used. To compare the control and the experimental group, the differences achieved for each group were used. For the statistical analysis the parametric tests were used, since Shapiro-Wilk tests showed a normal distribution of the data. A two-sample t-test was used to determine the homogeneity of the groups and also to compare the results between the groups. Paired t-test was used to test the change in condition before and after the experiment. All statistical tests were evaluated at the chosen 5% significance level ($\alpha = 0.05$).

Results: Cryotherapy in combination with manual physiotherapeutic treatment achieves a statistically significant effect on the pain and functionality of the elbow joint at a 5% level of significance compared to the state before and after the experiment. A comparison of the control and experimental group showed a statistically significant difference in pain management in favour of the experimental group. In the case of elbow functionality, or overall disability according to PREE, a difference between the two groups was not shown to be statistically significant.

Keywords: cryotherapy, manual physiotherapy, PREE questionnaire, VAS, lateral epicondylitis, medial epicondylitis