Use of low level of continuous heat as an adjunct to physical therapy improves knee pain recovery and the compliance for home exercise in patients with chronic knee pain: a randomized controlled trial

Abstract

This study examined if the use of low level continuous heat (LLCH) wraps at home between physical therapy sessions at a clinic resulted in better therapy outcomes in patients with chronic knee pain. Fifty individuals with chronic nonspecific knee pain was randomly allocated to two groups: the LLCH group and the placebo group. All subjects underwent 1 hour of conventional physical therapy twice per week for 2 weeks at the outpatient clinic and they were asked to accomplish 1 hour of therapeutic exercise at home each day between sessions. The LLCH group applied LLCH knee wraps for 6 hours at home before home exercise while placebo group took a placebo ibuprofen. (This was done since placebo heat is impossible to use since subjects would notice that the wraps were cold.) Before, during, and after intervention, pain intensity, active range of motion of the knee (AROM), knee strength, and home exercise compliance were measured. The LLCH group showed pain attenuation after 2 weeks of therapy sessions (p < .05). AROM and strength of the knee significantly improved over time compared to the placebo group. Home exercise compliance was significantly higher in the LLCH group than placebo group (p < .05). These results indicated that the use of LLCH as an adjunct to conventional physical therapy for chronic knee pain significantly improved pain attenuation and recovery of strength and movement in patients with chronic knee pain.