

Abstract

Introduction: Osteoarthritis is a joint disease that progresses slowly and affects one joint and sometimes several joints, causing limited joint movement, pain and eventually disability. Various treatment and support measures are used for this disease. This study was conducted with the aim of determining the effect of leech therapy on knee osteoarthritis pain and daily function of the elderly.

Methods: In this controlled clinical trial, 70 patients aged 60-74 with osteoarthritis who met the inclusion criteria were included in the study according to targeted sampling. And the samples were placed in two intervention groups and control groups using random blocks (4 numbers). For the intervention group, in addition to the routine treatment, a 30-minute leech therapy session using 6 to 8 leeches in a clean and secluded room with the patient's privacy and compliance with all the protocols to protect against the corona virus at around noon in the environment. A traditional medicine clinic was conducted. The control group did not receive any intervention from the researcher. In all groups, daily function and joint stiffness were checked using the WOMAC questionnaire and pain intensity using the VAS criterion at the beginning of the study, on the 7th day, the 14th day, and the 28th day after entering the study. The data was used in SPSS software version 21 and the statistical tests of one-way analysis of variance, analysis of variance of repeated measures and chi-square were used and the results were reported at a significance level of 0.05.

Findings: The results showed that there was no significant difference between the average scores of dryness, function and pain of patients in the two groups before the intervention ($P=0.94$); However, after the intervention, there was a significant difference between the average changes of all the investigated variables of the two groups over time ($P<0.001$), so that on the seventh day, there was a significant decrease in the average of all the investigated variables in the patients of the intervention group compared to the control group. There was ($P<0.001$) but from this time on, there was no significant increase in the average scores of all the investigated variables in the patients of the intervention group compared to the control group whose score changes were uniformly constant ($P>0.05$).

Conclusion: Based on the findings of this study, the use of acorn therapy is suggested as a treatment method for short-term improvement of dryness, pain and function of patients with mild to moderate osteoarthritis. Due to the cheapness and availability of this treatment by providing documented scientific evidence such as this study, these treatment methods can be suggested to the elderly.

Keywords: aging, leech therapy, osteoarthritis, pain, daily function.