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Investigation of the effects of pool-based exercise on fibromyalgia syndrome.

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OBJECTIVE: The aim of this study was to compare pool-based exercise and balneotherapy in fibromyalgia syndrome (FMS) patients. **METHODS:** Fifty female patients diagnosed with FMS according to the American College of Rheumatism (ACR) criteria were randomly assigned to two groups: group 1 (n=25) with pool-based exercise, and in group 2 (n=25) balneotherapy was applied in the same pool without any exercise for 35 min three times a week for 12 weeks. In both groups, pre- (week 0) and post-treatment (weeks 12 and 24) evaluation was performed by one of the authors, who was blind to the patient group. Evaluation parameters included pain, morning stiffness, sleep, tender points, global evaluation by the patient and the physician, fibromyalgia impact questionnaire, chair test, and Beck depression inventory. Statistical analysis was done on data collected from three evaluation stages. **RESULTS:** Twenty-four exercise and 22 balneotherapy patients completed the study. Pretreatment (week 0) measurements did not show any difference between the groups. In group 1, statistically significant improvement was observed in all parameters ($P<0.01$) except for the chair test at both weeks 12 and 24. In group 2, week 12 measurements showed significant improvement in all parameters ($P<0.01$) except for the chair test and Beck depression inventory. Week 24 evaluation results in group 2 showed significant improvements in pain and fatigue according to visual analogue scale (VAS), 5-point scale, number of tender points, algometric and myalgic scores, and patient and physician global evaluation ($P<0.01$ and $P<0.05$, respectively), while improvements were nonsignificant in morning stiffness, sleep, fibromyalgia impact questionnaire (FIQ), chair test, and Beck depression inventory parameters in this group. Comparison of the two groups based on the post-treatment (weeks 12 and 24) percent changes and difference scores relative to pretreatment (week 0) values failed to show a significant difference between the groups for any parameter except Beck depression inventory ($P<0.01$). **CONCLUSION:** The results of our study showed that pool-based exercise had a longer-lasting effect on some of the FMS symptoms, but statistical analysis failed to show a significant superiority of pool-based exercise over balneotherapy without exercise. While we believe that exercise is a gold standard in FMS treatment, we also suggest in light of our results that balneotherapy is among the valid treatment options in FMS, and further research regarding the type and duration of the exercise programs is necessary.

Publication Types:

- Clinical Trial
- Randomized Controlled Trial

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