

SPA therapy together with supervised self-mobilization improves pain, function and quality of life in patients with chronic shoulder pain: a single blind randomized controlled trial

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Background: To determine whether spa therapy has a beneficial effect on pain and disability patients with chronic shoulder pain.

Methods: This single blind randomized controlled clinical trial included patients with chronic shoulder pain due to miscellaneous conditions attending 1 of 4 spa centres as outpatients. Patients were randomized into two groups: spa therapy (18 days of standardized treatment combining thermal therapy together with supervised mobilization in a thermal pool) and controls (spa therapy delayed for six months: “immediate versus delayed treatment” paradigm). All patients continued usual treatments during the 6-month follow-up period.

The main endpoint was the mean change in the French-Quick DASH (F-QD) score at six months. The effect size of spa therapy was calculated and the proportion of patients reaching minimal clinically important improvement (MCII) compared. Secondary endpoints were the mean change in SF-36, treatments use, and tolerance.

Results: 186 patients were included (94 patients as controls, 92 in the spa group) and analyzed by intention to treat. At six months, the mean change in the F-QD score was statistically significantly greater among spa therapy patients than controls (-32.6% versus -8.15%; $p < 0.001$) with an effect size of 1.32 (95%CI: 0.97-1.68). A significantly greater proportion of spa therapy patients reached MCII (59.3% versus 17.9%). Spa therapy was well tolerated with a significant impact on SF-36 components but not on drug intake.

Conclusion: Spa therapy provided a statistically significant benefit on pain, function, and quality of life in patients with chronic shoulder pain after 6 months compared with usual care.

Key words: chronic shoulder pain, rotator cuff tendinopathy, spa therapy, DASH score, SF-36