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# **Long-term efficacy of spa therapy in patients with rheumatoid arthritis**

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Our previous crossover randomized trial suggested that spa therapy added to usual pharmacotherapy provides benefits that lasted 6 months over pharmacotherapy alone in rheumatoid arthritis patients. We now extend, and report the long-term results of that study. In the crossover trial, patients were randomized to spa therapy first group or control first group (first assignment, period 1, 6 months); after this period and washout phase (9 months), they crossed over to the other arm (second assignment, period 2, 6 months). In this long-term study, we now analyze the 15-month results of the first assignment, and 12-month results of the second assignment in the opposite side with a 6-month extension of the follow-up period. The clinical outcome measures were pain, patient and physician global assessment, Health Assessment Questionnaire, and Disease Activity Score-28. The 15-month results of first assignment revealed no statistically significant differences between the groups in any of the efficacy outcomes ( $p > 0.05$  for all). The 12-month results for the second assignment after crossover revealed a statistically significant decrease between the groups regarding the patient global assessment scores ( $p = 0.016$ ), physician global assessment scores ( $p = 0.003$ ) and swollen joints counts ( $p = 0.030$ ); however, no statistically significant difference was found between the groups in any of the other efficacy outcomes ( $p > 0.05$  for all). The short- and medium-term beneficial effects of the 2-week spa therapy added to the usual pharmacotherapy observed through the initial 6-month evaluation period may be maintained mildly to moderately to the 12-month mark in rheumatoid arthritis patients receiving conventional disease-modifying antirheumatic drugs. Further studies with a larger sample size are needed for the confirmation of the study results.

# **Spa therapy in rheumatoid arthritis: a crossover trial**

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**Objective:** This study aims to investigate whether 2-week spa therapy, as an adjunct to usual pharmacological therapy, has any beneficial effect in patients with rheumatoid arthritis (RA).

**Methods:** In this single-blind crossover study, 50 patients were randomly assigned in a 1:1 manner to receive usual pharmacological therapy plus 2-week spa therapy or usual pharmacological therapy alone (period 1.6 months); after a 9-month washout, patients were crossed over to the opposite assignment (period 2.6 months). Spa therapy program included a daily saline balneotherapy session at 36–37 °C for 20 min except Sundays. The clinical outcomes were evaluated at baseline, after spa therapy (2 weeks) and 3 and 6 months after the spa therapy in both period and were pain (Visual Analogue Scale (VAS)), patient and physician global assessments (VAS), Health Assessment Questionnaire (HAQ), and Disease Activity Score (DAS28).

**Results:** Spa therapy was superior to control therapy in improving all the assessed clinical outcomes at the end of the spa therapy. This superiority persisted significantly in physician global assessment ( $p = 0.010$ ) and with a trend in favor of spa group in patient global assessment ( $p = 0.058$ ), function ( $p = 0.092$ ), and disease activity ( $p = 0.098$ ) at 3 months. Statistically significant improvements were found in spa therapy compared to control in disease activity ( $p = 0.006$ ) and patient ( $p = 0.020$ ) and physician global ( $p = 0.011$ ) assessments, and a trend toward improvements in pain ( $p = 0.069$ ) and swollen joints ( $p = 0.070$ ) at 6 months.

**Conclusion:** A 2-week spa therapy adjunct to usual pharmacological therapy provided beneficial clinical effects compared to usual pharmacological therapy alone, in RA patients treated with traditional disease-modifying antirheumatic drugs. These beneficial effects lasted for 6 months.