

Hydrotherapy Versus Conventional Land-Based Exercise for the Management of Patients With Osteoarthritis of the Knee.

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Background and Purpose: This study was designed to evaluate the effectiveness of hydrotherapy in subjects with osteoarthritis (OA) of the knee compared with subjects with OA of the knee who performed land-based exercises.

Subjects and Methods: Sixty-four subjects with OA of the knee were randomly assigned to 1 of 2 groups that performed exercises for 18 weeks: a water-based exercise group and a land-based exercise group. The outcome measures included a visual analog scale (VAS) for pain in the previous week, the Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC), pain during gait assessed by a VAS at rest and immediately following a 50-foot (15.24-m) walk test (50FWT), walking time measured at fast and comfortable paces during the 50FWT, and the Lequesne Index. Measurements were recorded by a blinded investigator at baseline and at 9 and 18 weeks after initiating the intervention.

Results: The 2 groups were homogenous regarding all parameters at baseline. Reductions in pain and improvements in WOMAC and Lequesne index scores were similar between groups. Pain before and after the 50FWT decreased significantly over time in both groups. However, the water-based exercise group experienced a significantly greater decrease in pain than the land-based exercise group before and after the 50FWT at the week-18 follow-up.

Discussion and Conclusion: Both water-based and land-based exercises reduced knee pain and increased knee function in participants with OA of the knee. Hydrotherapy was superior to land-based exercise in relieving pain before and after walking during the last follow-up. Water-based exercises are a suitable and effective alternative for the management of OA of the knee.