

The effect of hydrotherapy in haemophilic patient after joint replacement in the lower limb

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Introduction and Objectives

Joint replacement surgery is an effective and safe procedure in order to reduce pain, improve function and quality of life in patients with chronic arthropathy. Nevertheless, in the post-operative period, musculoskeletal compensations are adopted by the patient, in order to preserve and protect the operated joint, impairing myofascial strategies and the correct posture and disabling common movements. For all these reasons, in the post-operative period the implementation of a tailored rehabilitation program is fundamental. In this setting, we developed a water rehabilitation program based on special properties and physical laws of fluids.

Materials and Methods

All PWHs who underwent to joint replacement surgery of the lower limb from 2010 to 2013 (at least one year from surgery), with no age limit, were invited to join the project and to undergo the baseline tests (postural analysis, stabilometric and baropodometric evaluation, knee extensor and flexor strength with dynamometer, HJHS score). A tailored water rehabilitation program of at least 10 sessions and repetition of adapted “walk 6min test” were performed. Fatigue (Borg scale) and pain (Wong scale) measurements at the end of session and after 24h were recorded. At the end, the patient’s baseline analysis was performed again, with the repetition of all tests and the before/after comparison meant to assess results.

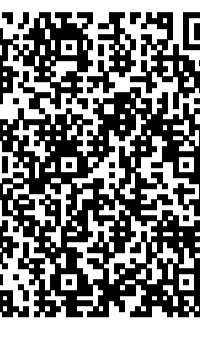
Results

16 patients with haemophilia A (10 severe, 3 moderate), and 3 patients with haemophilia B (1 severe, 2 moderate), with a mean age of 49 years (range: 33-78) who underwent to different major replacement surgeries (5 TKR, 5 TAR, 4 THR, 1 bilateral TKR, 1 bilateral TKR+1THR) attended consistently the swimmingpool and concluded the program.

We observed a global increase of strength for all measurements, particularly: isometric extension of left and right knees, isokinetic extension of left knees, isokinetic extension of left and right knees. Moreover a significant improvement in balance was observed in the vast majority of patients using stabilometric assessment. All patients reported a beneficial ability to relax with consequent pain reduction.

Conclusions

Our experience suggests that hydrotherapy has a positive role in reducing pain and improving the health status of patients with haemophilic arthropathy in the short term. However, the long-term benefit is unknown. Further studies are needed.



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