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The effect of aquatic therapy on function and mobility using large therapeutic pool – A randomized controlled pilot trial

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Water is an excellent medium for achieving maximal exercise levels with disabilities. Aquatic therapy (AT) has advanced to therapeutic exercises in water environments because of the characteristics and benefits that the water provides. AT using large pool is effective and popular. The purpose of this study was to evaluate the effect of AT on function and mobility in patients with disability using large therapeutic pool. The outcome measures are Berg Balance Scale (BBS), Modified Barthel Index (MBI), Time up and go test (TUG), Functional Ambulation Classification (FAC), 10m walking test (10WT). Twenty patients with various lower leg fracture were participated in this study. In the AT group (n=10), the treatment over a period of six weeks included 30 minutes of aquatic therapy twice per week and a conventional therapy three times a week. Subjects in the conventional therapy (CT) group (n=10) received CT over a period of six weeks five times per week. The size of aquatic pool is 17 meters in length and 9 meters in width. After intervention, participants had a significant improvement on activity of daily living (ADL), mobility and balance in both CT and AT groups. Compared with the CT group, the AT group attained significant improvements in TUG, 10WT (P<0.05). There were no significant changes in other measures between the two groups. Our results suggest that AT using large therapeutic pool is safe and useful tool during rehabilitation in the patients with fracture to improve ADL, mobility and balance.

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