



Service Priorities and Programmes
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Mobility Enhancement through Incorporating Hydrotherapy into Self-Empowerment Program for Patients with Knee Osteoarthritis

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Introduction

Knee osteoarthritis is one of the most common degenerative diseases and causes much disability among the elderly. Hydrotherapy intervention is found effective for those patients as water provides a range of benefit, including the reduction of edema, pain relief and improve the functional status. The hydrotherapy exercise class specifically for knee osteoarthritis patients was started in Sep 2016 in Pok Oi Hospital.

Objectives

To investigate the effectiveness of incorporating hydrotherapy into self-empowerment program for patients with knee osteoarthritis in improving functional mobility.

Methodology

From Sep 2016 to Dec 2017, patients were recruited from the knee osteoarthritis class. They were self-empowered by physiotherapist on self-care and land based home exercises program. After screening, suitable patients were offered a course of hydrotherapy. The hydrotherapy incorporated stretching, mobilizing and strengthening exercises, neuromuscular and proprioception training. The exercises were designed with no complicated device needed so that patients can easily follow and self-administer in public swimming pool. Functional mobility (time-up-and-go test, walking speed) as well as the patient's satisfaction and overall subjective improvement were analyzed.

Result

A total of 43 patients were recruited. 7 were male and 36 were female. The patients had an average age of 62.7 years old and BMI 26.7 kg/m². In average they received 6 sessions of hydrotherapy. All the outcome measures showed improvement compared to baseline. The time-up-and-go test improved from 11.8±3.5 second to 10.6±3.0 second. The walking speed showed improvement from 1.0±0.2 ms⁻¹ to 1.1±0.3 ms⁻¹. All outcome measures achieved statistically significance (p<0.05) by Wilcoxon signed ranks test. All patients were satisfied with the knee hydrotherapy treatment. The

overall subjective improvement was 58.1% as measured by the Numeric Global Rating of Change Scale.

Conclusion:

Hydrotherapy incorporating into the self-empowerment program was found effective in improving functional mobility in short term in this program. Yet the sample size of this study was small and further study could recruit more subject to increase the power and decrease the bias of the study. Moreover, the long term therapeutic effect and the compliance of the exercise as well as comparison with land based exercises could be further evaluated in the future study.