

New Territories West Cluster



The Effectiveness of Early Physiotherapy Intervention for patients after endoscopic carpal tunnel release

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INTRODUCTION

The One-stop, Multi-disciplinary Management Program for Carpal Tunnel Syndrome (CTS) patients was started in Jan 2008. After neurophysiological investigation by orthopedics surgeon, the CTS patients consented for endoscopic carpal tunnel release (ECTR) will receive early physiotherapy intervention before and after operation to relieve their symptoms and improve their functional status. It can facilitate early rehabilitation of the patients.

OBJECTIVES

To evaluate the Effectiveness of Early Physiotherapy Intervention on relieving the symptoms and improving the functional status of patients after endoscopic carpal tunnel release.

METHODOLOGY

32 CTS patients consented for ECTR were recruited from Jan 2008 to June 2009. They received pre-operative assessment by physiotherapist and an educational talk on home exercises and self-care before operation. Afterward, they received a tailor-made physiotherapy program within 1 week after operation. Treatments included Magnetic Therapy to promote wound healing; Joint Mobilization Exercises to prevent stiffness; Tendon Gliding Exercises, Wax Therapy, ultrasound, deep frictional massage to prevent adhesion; Sensory Re-education, Strengthening Exercises and other electrotherapy to reduce their symptoms and improve their functional status.

Clinical outcome data including the Severity of Symptoms and the Functional Status of patients were collected at pre-operation and at post-operation week 6 using a disease-specific outcome instrument: The Hong Kong Chinese Version of the Brigham and Woman's Hospital CTS Questionnaire. The total number of physiotherapy sessions of individual patient was recorded.



RESULTS

Both Symptoms and Functional Status of patients were significantly improved. Symptom Severity Scale decreased from 2.56 ± 0.86 to 1.31 ± 0.33 ($p < 0.05$). Functional Status Scale decreased from 1.92 ± 0.77 to 1.47 ± 0.56 ($p < 0.05$). Overall Scale decreased from 4.45 ± 1.49 to 2.62 ± 1.00 ($p < 0.05$).

When comparing the group of patients undergone ECTR without this program and the group of patients with this program, the average number of physiotherapy sessions for individual patient was reduced from 16 to 11.

CONCLUSION

Early Physiotherapy Intervention was found to be effective on relieving the symptoms and improving the functional status of patients after endoscopic carpal tunnel release.