



Service Priorities and Programmes
Electronic Presentations

Convention ID: 260

Submitting author: Miss Yin Ling WONG

Post title: Physiotherapist I, Kwong Wah Hospital

A Pilot Study on Investigation of the Effectiveness of Minimally Invasive Surgery for Lumbar Stenosis Patients in Day-Hospital Setting: a Teamwork Approach between the Departments of Orthopedics & Traumatology and Physiotherapy.

WONG YL (1), P CHEUNG(2), CW FUNG (1), LEUNG CM(1), CHONG CW(1), WONG YH(1)

1. Physiotherapy department, KWH

2. Department of Orthopedics & Traumatology, KWH

Keywords:

Minimally Invasive Surgery

Lumbar Stenosis

Physiotherapy

Introduction

For the benefits of early discharge of patients, Orthopaedic surgeons want to investigate the potential of minimally invasive spinal surgery (MIS) to be conducted in day-hospital setting. Since there are limited studies evaluating this procedure in ambulatory setting among our local population, our physiotherapists collaborate well with surgeons to implement this project.

Objectives

The objectives of this project are to investigate the effectiveness & feasibility of lumbar operation (Decompression Open or MIS) for lumbar spinal stenosis patients in an ambulatory setting.

Methodology

Patients with lumbar stenosis and had MIS done at KWH were consecutively enrolled by orthopedic surgeons from Sept 2012 to Nov 2014. All the patients were educated at ambulatory care about the logistic flow before the operation. Standardized self-paced walking test (SPWT) on treadmill & functional assessment scoring were performed preoperatively, at post-operation 3 months & 1 year time intervals. Physiotherapy assessments included SPWT (total distance & time walked, time & distance at provocation of symptoms), functional assessment scoring contained questionnaires of ODI, RMDQ, self rating on NPRS & NGRCS. Education on back exercise & postural advice were provided after operation done.

Result

There were total of 38 subjects recruited. 11 male & 27 female, with average of 64.7

years old. 35 subjects completed all the tests at 3 time intervals. ANOVA tests were applied to analysis all the data at 3 time interval, i.e. before operation, 3 months post-operation & 1 year post-operation. All the tests were analyzed with mean difference of significant values at the 0.0001.

All the outcome measures at time intervals of post operation 3-months & 1-year were improved apparently with p-values at 0.0001.

Conclusion:

It is clearly that MIS surgical intervention is beneficial for lumbar spinal stenosis patients in an ambulatory setting. The patients' back and legs pain reduced significantly such that their physical capacity improved & had lesser extent of disability in daily lives function.

As a physiotherapist, close collaboration with orthopedic surgeons is essential to determine the effectiveness & outcomes of their innovative surgical interventions.