



Service Priorities and Programmes
Electronic Presentations

Convention ID: 207

Submitting author: Mr CHIN KWAN CHAN

Post title: Physiotherapist II, Princess Margaret Hospital

**Effect of Physiotherapy Strategies in Stroke Patient with Pusher Syndrome:
Literature Review and Case Study**

Chan CK(1)

(1) Physiotherapy Department, Princess Margaret Hospital

Keywords:

Pusher

Stroke

Physiotherapy

Treatment

Introduction

Some stroke patients exhibit an active pushing behavior from non-hemiplegic side and resist passive correction towards or over the midline of body which leads to a loss of balance. This clinical disorder is termed 'pusher syndrome'. Although pusher syndrome does not affect functional outcome, the rehabilitation process is slowed down comparing to patients without pusher syndrome. Thus, finding out effective therapeutic strategies is important to achieve earlier discharge from hospital and shorten the time for rehabilitation in order to optimize the functional outcome.

Objectives

The aim of this study is to evaluate different physiotherapy strategies to stroke patients with pusher syndrome and illustrate a case study of stroke patient suffering from pusher syndrome in acute setting with outcome after receiving physiotherapy treatment.

Methodology

Studies for literature review is searched through electronic databases (MEDLINE, EMBASE, CINAHL) . Databases are searched from their inception to December 2015. Patient with pusher syndrome for case study was recruited from acute stroke unit setting, physiotherapy treatment was provided and the outcome for the treatment approach was measured.

Result

5 studies and different physiotherapy strategies were included: standard motor physiotherapy, physiotherapy with visual feedback component, computer generated interactive visual feedback training, machine-supported gait training with Lokomat and galvanic vestibular stimulation. Physiotherapy with visual feedback component, computer generated interactive visual feedback training and machine-supported gait training with Lokomat were reported to be effective. The following features were included for effective strategies: active and task-oriented component, making use of

visual orientation, and encounter perception of body alignment problem and fear of fall. Physiotherapy with visual feedback was illustrated in the case study with a patient with old left cerebral infarct and new right cerebral infarct to show the outcome of a single session treatment. Furthermore, specific treatment and its long term effect to reduce the pusher syndrome effectively should be evaluated with higher standard study design.