Service Priorities and Programmes

Electronic Presentations

Convention ID: 398
Submitting author: Miss Lok Yan Dorothy CHOW
Post title: Physiotherapist II, Pok Oi Hospital, NTWC

Does Total Knee Replacement with rehabilitation improve functional outcome in Chinese population?

Chow LYD, Law YT, Ho SM, Chan KY

Keywords:
Total knee replacement
OKS
Chinese population
functional outcome

Introduction

There is a growing need in Total Knee Replacement (TKR) surgery for osteoarthritic knees, and Oxford Knee Scale (OKS) is commonly used as a patient perceived functional outcome of the surgery. However, little have been done to study the effect of surgery in Chinese population.

Objectives

(1) To explore the change in functional outcome of Chinese population in Hong Kong undergoing total knee replacement with rehabilitation. (2) To explore the change in items on OKS along the rehabilitation path.

Methodology

From 9/2014 to 3/2015, Chinese patients undergoing total knee replacement surgery and outpatient rehabilitation in Pok Oi Hospital (POH) were recruited. A standard protocol was developed. Subjects received inpatient physiotherapy treatment after TKR, followed by outpatient physiotherapy sessions. Patient would be discharged from outpatient unit when mobility status reaches Modified Functional Ambulation Category (MFAC) Cat 7, and with self- perceived satisfactory progress. Outcome measures included pain intensity (VAS), range of motion and self-perceived functional status, measured by the 12-item Oxford Knee Scale (OKS). The overall score of the scale ranges from 0 to 48, where higher the score, lesser the limitation in mentioned activities. The data was analyzed by SPSS 18.0. Outcome measures were compared by paired t-test. A p-value of less than 0.05 was considered statistically significant in all analysis in this study.

Result

76 patients were recruited, with mean age 65.99+7.01, and mean BMI 27.1+3.85. Mean VAS pre-operation was 6.24+2.09, extension range 4.14+7.55, flexion range 104.34+15.35, OKS 22.22+7.50. Pain level and extension range was significantly improved after operation and inpatient rehabilitation, and further improve after outpatient training, while the final flexion range was similar to pre-operation. OKS has significantly increased, however, improvement was not significant before outpatient

rehabilitation. Conclusions: TJR with OPD rehabilitation decreased knee pain and improved extension range of motion. Functions in terms of walking endurance, night pain, outdoor walking, stairs ability and kneeling ability were improved. However, flexion range remained similar to pre-operation, indicating patient may need to adapt to an alternate lifestyle with lesser pain only. Also, due to cultural differences, items improve in OKS may not truly reflect the situation facing by Chinese population, such as squatting ability.