



Service Priorities and Programmes
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Efficacy of Innovative Stratified Care Program for Frozen Shoulder “肩膊物語” in Outpatient Physiotherapy Department

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Introduction

Shoulder condition constitutes nearly 10% of patients in Outpatient Physiotherapy Department. Among them, frozen shoulder is the major disease. Previous physiotherapy service in treating frozen shoulder was mainly individual treatment. With increasing demand, group exercise therapy becomes a trend of patient care. Therefore, an innovative stratified care model for frozen shoulder was started in January 2016.

Objectives

(1) To evaluate efficacy of the stratified care service for frozen shoulder; (2) To empower patient in self-management

Methodology

From January to September 2016, patients with frozen shoulder were triaged and recruited into a 3-session exercise group “肩膊物語”. Exclusion criteria were fracture, shoulder impingement, shoulder instability and cervical radiculopathy. In the exercise group, care education, self-pain management and home-based exercise with dynamic return-demonstration were provided. After 3 sessions, those patients achieving $\geq 70\%$ improvement would be discharged with home management (Group 1). Those patients with $<70\%$ improvement despite having good exercise compliance would be stratified for early individual treatment (Group 2). Those patients with $< 70\%$ but poor exercise compliance would be arranged for routine individual care (Group 3). As for the conventional group, subjects were recruited for individual electrical modalities and brief exercise class from January to June 2015. Same exclusion criteria were applied. Outcome measures were percentage of improvement, number of treatment sessions, pain level and flexion range of shoulder. Pain self-efficacy, exercise compliance, patient’s satisfactory rate and a 6-month telephone follow-up were collected in the exercise group.

Result

140 patients (female 55%: male 45%, mean age 59.5 years; 34.3% in Group 1, 21.4%

in Group 2, 21.4% in Group 3, 22.9% patients defaulted) were recruited in the exercise group, and 81 patients (female 64%: male 36%, mean age 57.8 years) were recruited in the conventional group. Both groups were comparable at baseline demographic data.

The percentage of improvement was 74.6% for the exercise group (66.3% improvement for defaulted patients) and 67.8% for the conventional group ($p=0.022$).

The total number of sessions in the exercise group and in the conventional group were 6.1 and 10.0 respectively ($p=0.000$). Among exercise group, Group 1 patients attended 4 sessions; Group 2 and Group 3 patients attended 9.7 sessions.

The pain level reduced from 6.1 to 2.1 in the exercise group ($p=0.000$); and from 5.6 to 2.2 in the conventional group ($p=0.000$). The flexion range of shoulder increased from 124° to 178° in the exercise group ($p=0.000$); and from 148° to 168° in the conventional group ($p=0.003$). Upon discharge, the pain self-efficacy improved from 36.4/60 to 47.5/60 ($p=0.000$) and the exercise compliance was > 120 mins/wk in the exercise group.

At 6-month follow-up in the exercise group, the pain level was 1.8. The overall improvement was maintained at 76%. The exercise compliance was 75 mins/wk and 93% of patients were satisfied with the program. Conclusion: The stratified care model in exercise group with patient empowerment is effective and efficient in managing frozen shoulder while maintaining service quality.