PHYSICAL THERAPY, A PART OF A MULTIDISCIPLINARY TEAM FOR PwMS

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INTRODUCTION

The majority of patients with multiple sclerosis (PwMS) experience a decrease in their mobility as their disease progresses. It's well known now that movement and exercise therapy are beneficial; they can induce a (partial) recuperation of functional motor loss or maintain the present level of functional mobility. In the past several years, many studies have shown that fitness and power exercises have a positive impact on fatigue and general physical capacity of PwMS.

In our physical therapy (PT) department in the National Multiple Sclerosis Center we provide all our PwMS with an individual session of PT as well as many different group therapies (fitness, relaxation, hydrotherapy, horse riding, balance training, passive cycling). The common goal of each group therapy is to actively and passively mobilize the patient within their limitations, trying to increase their functional possibilities.

We take pride in the treatment we provide our patients within the PT department. The aim of this study is to evaluate our efficiency in regard to the daily used tests.

PATIENTS

397 patients were included

182 men and 215 women

Mean age: 53.4 (range: 21 – 85)

EDSS: 6.7 (range: 2 – 9)

Mean years of MS (since diagnosis): 16.7 (range: 0 - 52)

Mean age at first symptom: 20.3 (range: 0 – 60)

Mean weeks of hospitalization: 5.2 (range: 2-39)

METHODS

The results of the multidisciplinary team was analyzed over the period of one year (Jan.–Dec., 2011) for all inpatient in the National Multiple Sclerosis Center in Melsbroek, Belgium: demographic data and more specific testing data for physical therapy were obtained prior to and after each inpatients rehabilitation program.

We will only present an analysis from the results of the physical therapy team on the effect of short and long distance walk tests (25FWT and 6FWT), MSDS (Melsbroek Disability Scoring Test) and the number of obtained Rehabilitation Activity Profile (RAP) goals. The MSDS is a functionality test, assessing active movement, spasticity, balance, transfer and gait. The higher is the global MSDS score, the greater the functional impairment. The Rehabilitation Activity Profile is a shared multidisciplinary electronic patient file, in which the assessment results (and common of specific) rehabilitation goals are stored.

RESULTS

The results of 25 Feet Walking Test (25FWT), 6 Minute Walking Test (6FWT), MSDS, FIM were analyzed with a paired t-test. The improvement on 25 FW, 6FW, MSDS and FIM sub score Walk and Stairs are statistically extremely significant. Also the improvement on FIM sub score "chair" is considered significant.

Furthermore, if we consider that only a 20% increase within each test has clinical relevance, then only the 6FWT demonstrates the positive effect of an inpatient rehabilitation program.

A preliminary Spearman correlation analysis between EDSS score and length of stay is considered as not quite significant (P = 0.0554).

57% of PwMS obtained all of their PT goals and 77% of PwMS achieve more than half of their goals.

DISCUSSION

In this study, we evaluated the physiotherapeutic part of our multidisciplinary teamwork for PwMS. The results show a clinical and statistical increase of only one of the several used PT-tests in our center: the long distance walking test. This raises the question if our rehabilitation program needs an even greater focus on endurance training than on power and speed exercises, or inversely that even more power en speed training is needed to achieve significant results. We respected a theoretical cutoff value for clinical significance of 20% for MSDS but this has not yet been scientifically established.

Over three-quarter of patients obtain the majority of their PT goals, reinforcing our belief that most patients leave the hospital in better physical condition. We deliberately isolated the specific PT effect on PwMS within our multidisciplinary teamwork, knowing that the overall effect of rehabilitation (on quality of life) is greater than the mathematical sum of each discipline separately.

Preliminary findings show no significant correlation between disability (EDSS) and the length of hospital stay, however we may need to observe a possible clustering of patients with EDSS <6 and EDSS > 6. As such we intend to further analysis our data. Other correlation between EDSS, age, length of disease and functional tests will also be addressed.

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