سامية محمد مصطفى

شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم

سامية محمد مصطفى

شبكة المعلومات الجامعية

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التوثيق الالكتروني والميكروفيلم

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سامية محمد مصطفى

جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات

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بالرسالة صفحات لم ترد بالأصل

Correlative Analysis between Degree of Spasticity and Angle of Wrist Joint during Grasping in Spastic Cerebral Palsied Children

By

Ehab Anwar Mohamed

B.Sc. in Physical Therapy

Thesis

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Faculty of physical therapy

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بسم الله الرحمن الرحيم

وما أوتيتم من العلم إلا قليلا

صدق الله العظيم

سورة الإسراء الآية (٨٥)

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Ehab Waly

2004

Dedication

TO MY BELOVED MOTHER, MY SINCERE BROTHERS AND SPECIAL DEDICATION TO MY WIFE

Correlative Analysis between Degree of Spasticity and Angle of Wrist Joint during Grasping in Spastic Cerebral Palsied Children / Ehab Anwar Mohamed Hafez Wali; Supervisors: Prof. Dr. Hoda Abdel Aziem El Talaway – Prof. Dr. Emam Hassan El Negamy – Dr. Fatma Abdel Fattah Hegazy, Faculty of Physical Therapy, Cairo University, Master Thesis.

Abstract

The purpose of this study was to analyze the relation between angle of wrist joint during grasping and degree of spasticity in spastic hemiplegic children. Fifty spastic hemiplegic children ranged in age from 3 to 6 years old participated in this study. They were classified according to modified Ashworth scale into 5 groups, twenty normal children were also participated to be as a baseline for normative data. A dynamometer was used to measure grip strength and an electronic goniometer to measure angle of wrist joint. All groups were tested using standardized positioning and instruction to exert maximal grip strength, at peak value of grip strength, the angle of wrist joint is measured. Angle of wrist joint showed gradual decline in extension from normal group till group 2, then dramatically ascending in flexion in other groups, grip strength showed great decline in its value from normal to severe spastic cases. A significant correlation was seen between angle of wrist joint and spasticity and between wrist angles and grip strength directly during extension and reversely during flexion. Another pilot experimental study was done by using special designed wrist splints at 0°, 15° and 30° extension to investigate relation between wrist angles and grip strength. No significant correlation between 15&30 degrees in normal group was found while significant correlation was found in spastic group and grip strength at 30° showed the greatest value.

Key words: Grasping, cerebral palsy, hemiplegia, grip strength, wrist joint, spasticity.

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