### Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and Its Surgery

### Master Degree 2007

Author	:	Lamyaa Ahmed Fergany.
Title	:	Adverse Neurotension on Epidural Fibrosis following Cervical
		disc surgery.
Dept.	:	Physical Therapy Department for Neuromuscular and
		Neurosurgical Disorder and its Surgery.
Supervisors	1.	Nawal Abd El-Raouf Abou Shady.
	2.	Magdy Ahmed Arafa.
	3.	Mohamed Mohee El Dn.
Degree	:	Master.
Year	:	2007.
Abstract	:	

The purpose of this study is to asses the effect of adverse neurotension technique on epidural fibrosis following cervical disc surgery. Thirty patients with symptoms of failed cervical surgery syndrome due to epidural fibrosis. Their age ranged from 40 to 55 years. They were randomly assigned into two equal groups (control and study), The control group (G1) was treated by {ultrasonic, transcutaneous electrical nerve stimulation, ice therapy and therapeutic exercises} and, The study group (G2) was treated by all the above plus adverse neurotension technique. The treatment was applied three days per week every other day for twelve weeks. The patients were assessed three times pre, mid and post-treatment by neck functional disability scale, pain intensity visual analogue scale and neck range of motion using geniometer. Statistically, the results showed that significant improvement occurred in the two groups with the best results for the study group. According to the statistical analysis, adverse neurotension technique with the traditional physical therapy program is considered as an effective technique in rehabilitating failed cervical surgery syndrome patients.

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Key words	1.	Failed cervical surgery syndrome.
	2.	Epidural fibrosis.
	3.	Adverse neurotension technique.
Arabic Title Page	:	الشد الميكانيكي المنعكس على العصب في حالات تليف الجذور العصبية بعد جراحات
_		الانزلاق الغضروفي العنقي.
Library register number	:	1609-1610.

Author	:	Rania El-Sayed Abd El Alim.
Title	:	Combined Low Intensity Laser and Magnetic Therapy in
		Treatment of Foot Pain in Diabetic Neuropathy.
Dept.	:	Physical Therapy Department for Neuromuscular and
		Neurosurgical Disorder and its Surgery.
Supervisors	1.	Nawal Abd El-Raouf Abou Shady.
_	2.	Nashwa Sayed Hamed.
	3.	Nashwa Sayed Hamed.
Degree	:	Master.
Year	:	2007.
Abstract	:	

The objective of this study was to evaluate the effect of combined low intensity laser and magnetic therapy in treatment of Foot pain in diabetic neuropathy patients. Twenty patients of both sexes participated in this study. They randomly divided into two equal groups (study and control groups) (ten patients on each). The program consisted of; IR laser therapy followed by magnetic therapy, The program was conducted three times/ week for six weeks for both groups. The patients were assessed for pain intensity, active ROM of ankle dorsi flexion and planter flexion, and Rhomberg sign. These measures were recorded pre treatment, and post treatment at the end of six weeks. The results of this study showed significant decrease in pain intensity, improvement of the body stability and increases ankle dorsi flexion and planter flexion of both feet in both groups but there was very high improvement in the patients of the study group more than the patients in the control group. It can be concluded that this suggested program is effective in decreasing the pain intensity and increasing functional activities in diabetic neuropathic patients with foot pain.

Key words	1.	Low intensity laser.
all half of the street property and all	2.	Magnetic therapy.
101:	3.	Foot pain.
	4.	Diabetic neuropathy.
	5.	Lasers,
Arabic Title Page	:	تأثير الليزر قصير الشدة مع المجال المغناطيسي في علاج اللام التهاب أعصاب القدم
		السكري.
Library register number	:	1663-1664.

Author	:	Shaimaa Abd Elhamed Abd ElRahman Ahmed Salem.
Title	:	The Validity and Reliability of Functional Gradoing Scales in
		Relation to Nerve Conduction Study in Bell's Palsy Patients.
Dept.	:	Physical Therapy Department for Neuromuscular and
_		Neurosurgical Disorder and its Surgery.
Supervisors	1.	Nahed Ahmed Salem.
_	2.	Salah Abd El Monem Sawan.
	3.	Haim Mahmoud Sayed.
Degree	:	Master.
Year	:	2007.
Abstract	:	

The purpose of this study was to determine the relationship between nerve conduction study and functional garding scales and to determine the validity and reliability of functional grading scales in relation to nerve conduction study in evaluation of patients with Bell's palsy. Thirty patients of both sex were included in this study. The patients were assessed by nerve conduction study. Amplitude and latency recorded from frontalis and orbicularis oris muscles at abnormal and normal sides. Also, the patients were assessed by functional grading scales (House Brackmann grading scale and Facial grading scale). This assessment from nerve conduction study and functional grading scales were performed two times, firstly after two weeks and secondly after eight weeks. The result of this study showed that, there was a correlation between functional grading scales and nerve conduction study. It can be concluded that the functional grading scales are valid and reliable in relation to nerve conduction study in evaluation of patients with Bell's palsy.

Key words	1.	Nerve conduction study.
PHYSICA	2.	Functional grading scales.
	3.	Bell's palsy.
Arabic Title Page	••	مدي دقة المقاييس الوظيفية والاعتماد عليها في تقييم أداء عضلات الوجه بسرعة
		التوصيل العصبي لمرضي الشلل الوجهي.
Library register number		1649-1650.

Author	:	Yassmin Mohammed Ahmed.
Title	:	Isokinetic data base analysis of knee flexors and extensors in stroke patients.
Dept.	:	Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.
Supervisors	1. 2.	Adel Hassanein. Abdulalim Atteva.
	3.	Magdy Ahmed Arafa.
Degree	•	Master.
Year	:	2007.
Abstract	:	

Background: muscle weakness is one of the most prominent consequences of stroke patients. An equally important area for future research is developing a greater understanding of the mechanism underlying post-stroke weakness. Without this information, we are restricted in our efforts to design appropriate rehabilitation interventions. A strong bias has existed against quantifying strength in hemiparetic person, thus the majority of clinical research focused on outcome measures of strength at the activity and participation levels. The purposes of the study were to measure isokinetic peak torque, average power and total work production of knee flexors and extensors during concentric and eccentric contraction and to determine the correlation between isokinetic strength variables and functional activities such as gait speed. Subjects and procedure: Thirty hemiparetic patients with mean age of 52 .6 ( $\pm$  8.22) years, mean body mass of 78.1 ( $\pm$  14.57) kg and mean height of 162 .6 ( $\pm$  6.95) cm, participated in the study after they had been diagnosed by neurologist. The isokinetic testing consisted of concentric and eccentric isokinetic knee flexion and extension at velocity of 60°/sec performed using a biodex system 3isokinetic dynamometer. The functional performance test consists of timed get up and go test and the time taken by the patients were recorded. Results: The main outcomes were that the peak torque values during concentric contraction were 25.5 (±17.3), 62.9 (±35.7) and 47.02 (± 17.8), 93.8 (±32.4) knee flexors and extensors of affected and unaffected limb respectively, with significant correlation between flexors and extensors. Total work and average values were completely different than peak torque values .Low to moderate correlation (r=0.04 to r=0.56 for flexors and r = 0.02 to r = 0.46 for the extensors) was reported between isokintic testing and timed get up and go for function test Conclusion: Neither functional testing nor isokinetic could be used in isolation to determine both muscle performance and physical function of lower limb in stroke patients.

Key words	1.	Stroke.
	2.	Isokinetic.
	3.	Functional performance.
Arabic Title Page	:	تحليل ايزوكينتكي لعضلات الركبة القابضة والباسطة لحالات السكتة الدماغية.
Library register number	:	1607-1608.