### ELECTRONIC GUIDE TO THESES APPROVED BY PHYSICAL THERAPY DEPARTMENT FOR NEUROMUSCULAR AND NEUROSURGICAL DISORDER AND ITS SURGERY PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

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

# Master Degree 2005

Author	:	Ashraf Ahmed Abd El-Moneim.
Title	:	Effect of Electrical Vestibular Stimulation on Recovery from
		Gaze Palsy.
Dept.	:	Physical Therapy Department for Neuromuscular and
		Neurosurgical Disorder and its Surgery.
Supervisors	1.	Mohamad Sadek Badawy.
	2.	Adel Hassanin El-Sayed Gad.
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Degree	:	Master.
Year	:	2005.
Abstract	:	

The purpose of this study was to evaluate the effect of galvanic vestibular stimulation (GVS) on recovery from gaze palsy. Twenty patients of gaze palsy from different etiologies (stroke, heridofamilial ataxia, head trauma and ocular nerve lesions), both sexes participated in this study (14 males and 6 females) their age ranged from 20 - 63 years with mean age  $47.9 \pm 12.5$  years. Duration of gaze palsy ranged from 4 - 24 months with mean of  $10.6 \pm 5.23$ . They received galvanic vestibular stimulation three times/ week for four weeks. They were assessed by using three point scale for gaze deviation, line bisection test and line crossing test. These measures were recorded before the vestibular stimulation (pre treatment) and after four weeks (post treatment). Results of this study showed that, there was significant decrease in the grades of gaze deviation, significant improvement in line bisection and significant improvement in line crossing. It was concluded that, galvanic vestibular stimulation is a beneficial central non invasive modality to improve recovery from gaze palsy.

Key words	1.	Vestibular stimulation.
	2.	Gaze palsy.
	3.	Visual neglect.
Arabic Title Page	:	تأثير التنبيه الكهربائي لدهليز الأذن على الشفاء من الشرلل الحدقي.
Library register number	:	1169-1170.

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Author	:	Mohamed EI Sayed Khallaf.
Title	••	Electromyographic study and three dimensional analysis of scapular movement in stroke patients.
Dept.	••	Physical Therapy Department for Neuromuscular and
		Neurosurgical Disorder and its Surgery.
Supervisors	1.	Moshera Darwish.
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Year	:	2005.
Abstract	:	

Background: Scapular movement and muscles function during humeral abduction had been studied in stroke patients. The study was conducted on the affected and non affected side. Objectives: of this study were to determine the influence of scapular kinematics and muscle activation patterns on arm abduction range of motion and the associated shoulder pain. Methods: forty male, stroke patients participated in the study. The analysis was conducted from sitting on a chair. The patients were instructed to abduct his arm (affected then the non affected) in the coronal plane. Upward rotation of the scapula and abduction of humerus were analyzed by using 3dimensional motion analysis system. Electrical activities were recorded from the middle fibers of the deltoid, upper/lower fibers of the trapezius, and the lower five digits of the serratus anterior muscles by electromyography (EMG). Results: There were a significant limitations in the shoulder abduction ROM, and the scapular upward rotation of the affected limb comparing to those of the non affected side. There was also marked decrease in the Electromyographic activities of the selected muscles of the affected side. Conclusion: Disturbance of the scapular kinetics and kinematics is considered as an important cause of shoulder pain in stroke population.

Key words	1.	Biomechanics.	
	2.	EMG.	
THES	3.	Motion analysis.	
	4.	Range of motion.	
	5.	Stroke.	
	6.	Shoulder pain.	
Arabic Title Page	:	رسم العضلات والتحليل ثلاثي الابعاد لحركة عظمية اللوح في مرضى السكتة	دراسة ل
		الدماغية.	
Library register number	:	1235-1236.	

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Author	:	Wael Salah Tawfeek Shendy.
Title	:	Ground Reaction Force Assessment in Stroke Patients.
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		Neurosurgical Disorder and its Surgery.
Supervisors	1.	Mohamad Sadek Badawy.
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	3.	Eman Samir Mohamed.
Degree	:	Master.
Year	:	2005.
Abstract	:	

The purpose of this study was to evaluate the ground reaction force in stroke patients (mild and moderate spasticity) and to compare them with normal subjects. Thirty stroke patients and fifteen normal subjects participated were included in this study. Stroke patients were assigned into two equal groups, group I with mild spasticity and group II with moderate spasticity. This study calculated kinetic quantities of human gait, by using all components of the ground reaction force (vertical load, horizontal shear forces in the fore-aft and mediolateral directions), both in normal subjects and stroke patients. The results of this study showed varied significant reduction of ground reaction force in all parameters of ground reaction force in both groups (I&II) of stroke patients when compared with control group. The magnitude of ground reaction force was increased significantly in patients with mild spasticity, compared to ones with moderate spasticity. So, assessment of ground reaction force should be considered as a useful evaluating tool for kinetic gait analysis. It also helps in detecting the prognosis of stroke patients by comparing the ground reaction force parameters of the patients with normal parameters.

Key words	1.	stroke.	
PHYSICA	2.	gait analysis.	
	3.	ground reaction force.	
Arabic Title Page	:	ية رد الفعل الارضي في مرضى السكتة الدماغية.	تقويم قو
Library register number	:	1227-1228.	