Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery

Master Degree 2011

Author	:	**Abdelraheem Ahmed Ahmed Mousa.**
Title	:	**The use of Trunk Impairment Scale For Prediction of Functional Outcome Among Stroke Patients In Gaza Strip.**
Dept.	:	**Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.**
Supervisors	:	**Abdulaleem Abdulfattah Atteya.**
Degree	:	**Master.**
Year	:	**2011.**
Abstract	:	

Background: The role of trunk performance for prediction of functional outcome of stroke patients in acute and chronic stage is most important. **Objective** of this study was to examine the efficacy of Trunk Impairment Scale (TIS) for prediction of functional outcome among stroke patients in Gaza Strip. **Methods:** Thirty stroke patients with ischemic cause participated in this study were divided into two equals groups according to onset of stroke. (GA): fifteen stroke patients had stroke from two to 12 months. (GB): fifteen stroke patients had stroke from 13 to 24 months. Patients of both groups were assessed two times at the beginning of the study and three months later. TIS used to assess trunk performance, and Barthel Index Scale (BI) used to assess functional outcome. **Results:** There was a positive significant correlation between the mean values of TIS &BI in the first and second assessments of both groups, but the correlation was very highly significance at ($p<0.001$) in first and second assessment of GA, while it was highly significance at ($p<0.01$) in first assessment and significance at ($p<0.05$) in second assessment of GB. Comparison between the mean values of the first and second assessments of TIS &BI in both groups (A&B) showed a significant increase in the favor of second assessments. **Conclusion:** The study concluded that TIS was a valid tool for predicting functional outcome among stroke patients in both GA&GB. Improvement of trunk control and functional outcome of stroke patients occurred in both groups (A&B) but the rate was faster in GA patients than patients of GB.

Key words	:	Stroke**.**
	:	Functional Outcomes**.**
	:	Trunk Control.
	:	**Trunk Impairment Scale.**
	:	**Gaza Strip.**
Arabic Title Page	:	**إستخدام مقياس الإعاقة الخاصة بالجذع للتنبؤ بالنتيجة الوظيفية لمرضى السكتة الدماغية فى قطاع غزة.**
Library register number	:	2469-2470.

Author	**:**	**Aysha Salama El Homran.**
Title	**:**	**Low level laser therapy efficacy in chronic discogenic sciatica.**
Dept.	**:**	**Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.**
Supervisors	**:**	**Nawal Abd El-Raouf Abou Shady**
Degree	**:**	**Master.**
Year	**:**	**2011.**
Abstract	**:**	

Background: Sciatica is a common problem and the pain interferes with the daily life activity. Sciatica occurs in about 5% of people who have back pain. The most common cause of sciatica is a herniated disc. In about 90% of cases sciatica is caused by a herniated disc with nerve root compression, but lumbar stenosis and (less often) tumors are possible causes. Herniation of the nucleus pulposus occurs in 95% to 98% of cases at the disc between the lumbar vertebrae (L4-L5), or lumbar vertebra and sacrum (L5-S1). **The purpose** of this study was to examine the effect of Low level laser therapy (LLLT) on sciatic pain in discogenic patients. **Methods:** Thirty patients participated in this study. Patients were assigned into two equal groups; group A: was the study group and group B: was the control group; each group being composed of 15 sciatic patients. Data of visual analogue scale, Modified Oswestry Disability Questionnaire (MODQ), speed of walking, and straight leg raise were collected from each patient pre and post the selected physical therapy program for both groups, with LLLT for group A only. **Results:** the results showed highly significant improvement in pain intensity, functional disability, straight leg raise and speed of walking in the group A patient compared with those of the group B. The results showed no improvement in speed of walking in the group B . **Conclusion**: it can be concluded that LLLT is effective physical therapy modality for treating chronic sciatic patients with discogenic lesion and should be recommended in physiotherapy program.

Key words	**:**	Sciatica**.**
	:	Discogenic**.**
	:	low level Laser therapy.
	:	**chronic discogenic sciatica.**
Arabic Title Page	**:**	**كفاءة العلاج بالليزر المنخفض الشدة في عرق النسا المزمن المصاحب للانزلاق الغضروفي.**
Library register number	**:**	2467-2468.

Author	:	**Fatma Hamad Karsou.**
Title	:	**Influence of physical therapy intervention on shoulder pain in chronic spinal cord injury wheelchair users.**
Dept.	:	**Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.**
Supervisors	:	**Moshera Darwish.**
Degree	:	**Master.**
Year	:	**2011.**
Abstract	:	

Background: The high prevalence of shoulder pain in wheelchair users may be related to the repetitive use of the upper limbs during self care and wheelchair related activities. Purpose of this study was to determine the effect of interferential current therapy with a designed physical therapy program consist of "strengthening and stretching exercises" on shoulder pain in people with traumatic spinal cord injury (SCI) at level of T6-T12. **Subjects:** Thirty SCI patients suffering from chronic shoulder pain participated in this study (8 females and 22 males). Their ages ranged from 25-45 years. **Methods:** The patients were selected into two equal groups. The study group treated by interferential current (IFC) followed by a program of therapeutic exercise consisting of stretching and strengthening exercises. The control group treated by IFC and Activity of Daily Living on wheelchair. Three sessions per week for two months. Active ROM of shoulder joints was assessed by goniometry during flexion, abduction, internal and external rotation. Shoulder pain was assessed by wheelchair user's shoulder pain index (WUSPI). **Results:** The patients in the study group showed a significant increase in active ROM at all movements around right and left shoulder joint and significant decrease in pain intensity. The patient in control group showed significant decrease of pain intensity while the active ROM of shoulder did not show significant changes. **Conclusion:** The combination of IFC with a designed physical therapy program is more effective than IFC alone in the treatment of shoulder pain in chronic spinal cord injury.

Key words	:	Exercise**.**
	:	IFC (interferential current)**.**
	:	Shoulder pain**.**
	:	Spinal cord**.**
	:	Wheelchair.
Arabic Title Page	:	تأثير تدخل العلاج الطبيعي على ألام الكتف لإصابات النخاع الشوكي المزمن لمستخدمي الكرسي المتحرك**.**
Library register number	:	2547-2548.

Author	**:**	**Fatma Shehata Mohammed Ahmed Yousef.**
Title	**:**	**The efficacy of electrical stimulation and task specific training on hand functions in stroke patients.**
Dept.	**:**	**Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.**
Supervisors	**:**	**Abeer Abo Baker El-wishy.**
	:	**Ahmed Mohammed Abou Mousa.**
	:	**Nevein Mohammed Mohammed Gharib**.
Degree	**:**	**Master.**
Year	**:**	**2011.**
Abstract	**:**	

Objective: To evaluate the efficacy of electrical stimulation and task specific training on hand functions in stroke patients. **Design:** - Pre- test, post-test study. **Setting:** Out-patient clinic of Faculty of Physical Therapy and out patient clinic of neurology, faculty of medicine - Cairo University. **Subjects:** Thirty stroke patients (aged ranges from 45 to 65 years). **Intervention:** For the control group placebo electrical stimulation followed by task specific training but the study group treated by combined electrical stimulation and task specific training. **Main measures:** - The functional improvement by motor assessment scale and the range of motion of (fingers abduction and extension of proximal and distal inter phalangeal joints) by three dimensional motion analysis. **Results:** There is a highly significant effect of combining task specific training and electrical stimulation compared with task specific training only, on improving hand functions in stroke patients. **Conclusion:** Therapy combining task specific training and electrical stimulation may improve hand functions in stroke patients.

Key words	**:**	task specific**.**
	:	three dimensional motion analysis**.**
	:	stroke.
	:	**electrical stimulation.**
	:	**hand functions.**
Arabic Title Page	**:**	كفاءة التنبيه الكهربائي والتدريب الموجه للمهمة على الوظائف اليدوية في مرضي السكتة الدماغية.
Library register number	:	2343-2344.

Author	**:**	**Ibrahim Mohamed Ibrahim Hamoda.**
Title	**:**	**Efficacy of Transcranial Magnetic Therapy on Balance in Patients With Stroke.**
Dept.	**:**	**Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.**
Supervisors	**:**	**Nawal Abd El-Raouf Abou-Shady.**
	:	**Mohammed Khalil Yousif.**
Degree	**:**	**Master.**
Year	**:**	**2011.**
Abstract	**:**	

Background: The aim of this work was to investigate the efficacy of Transcranial Magnetic Therapy (TMT) on balance in hemiparetic stroke patients. It was conducted in outpatient clinic and in BIODEX balance system lab in Faculty of Physical Therapy, Cairo University. **Subjects and Methods:** Thirty hemiparetic stroke patients from both sexes represent the sample of this study. The patients' ages ranged from 45 to 55 years. They were assigned randomly into two equal groups; the study group (GA) and the control group (GB). control group treated by selected therapeutic physical therapy program. GA treated by the same program of treatment as the GB in addition to TMT. The duration of treatment was six weeks, three times weekly.day after day. The different aspects of dynamic balance (overall stability, anteroposterior stability and mediolateral stability indices) were assessed pre and post treatment objectively by Biodex balance system and clinically by Short Form of Berg Balance Scale (SFBBS) in both groups. **Results:** Comparison of each variable pre and post treatment in each group revealed a significant improvement in all different parameters in both groups : $p<0.01$; however comparison between post results revealed that the GA showed a high significant improvement higher than the GB in all different variables.

Key words	**:**	Stroke.
	:	TMT **(**Transcranial Magnetic Therapy**).**
	:	SFBBS (Short Form of Berg Balance Scale**).**
	:	Biodex balance system.
	:	Magnetic Therapy**.**
Arabic Title Page	**:**	**فاعلية العلاج بالمجال المغناطيسى عبر الجمجمة على الاتزان في مرضى السكتة الدماغية.**
Library register number	:	2553-2554.

Author	:	**Ilham Atta Hassan Lubbad.**
Title	:	**Influence of training latissimus dorsi muscle on asymmetric weight bearing in hemiparetic Stroke patient.**
Dept.	:	**Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.**
Supervisors	:	**Moshera Hassan Darwish.**
Degree	:	**Master.**
Year	:	**2011.**
Abstract	:	

The Purpose of this study was conducted to determine the influence of training latissimus dorsi muscle on asymmetrical weight bearing during standing in chronic hemiparetic stroke patients. Results revealed that there were statistically significant differences between the pre and post treatment results in body weight bearing distribution on the affected and non affected lower limbs in both groups. Conclusion: Comparison of post treatment results of all different variables in both groups (G1&G2) indicated that there was improvement in body weight distribution lower limbs during standing. There was significant improvement in study group (G1) comparing to control group (G2).

Key words	:	Stroke.
	:	Posture, Weight bearing.
	:	Asymmetry.
	:	Proprioceptive Neuromuscular Facilitation (PNF).
	:	Latissimuss dorsi muscle.
	:	Camry weight scale
	:	Muscle flexibility.
	:	PNF (.Proprioceptive Neuromuscular Facilitation).
Arabic Title Page	:	**تأثير تدريب العضلة الظهرية العريضة على تحميل الوزن غير المتماثل لمرضى الشلل النصفي الطولي نتيجة الجلطات الدماغية.**
Library register number	:	2549-2550

Author	:	**Itimad Abu Shmeis.**
Title	:	**The efficacy of interferential current in relieving neuropathic pain for spinal cord injury patients.**
Dept.	:	**Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.**
Supervisors	:	**Salah A. Sawan.**
Degree	:	**Master.**
Year	:	**2011.**
Abstract	:	

This study was conducted to investigate the efficacy of interferential current in relieving neuropathic pain for spinal cord injury patients. Twenty four complete spinal cord injury male patients with neuropathic pain were selected from the National Center for Community Rehabilitation in Gaza Strip. Patients were distributed into two equal groups, group (1) and group (2). Patients in group (1) received interferential current in additional to selected physiotherapy program (passive movement, weight bearing, stretching exercises) while patients in group (2) received same selected physiotherapy program only. Both groups were treated three times per week for four weeks. Two evaluations were performed, pre-treatment and after four weeks post-treatment. All patients were evaluated for pain intensity using visual analogue scale, impact of pain on patients family, social, mood, sleep and recreational activities using the Multidimensional Pain Inventory-Spinal Cord Injury / Life Interference Scale and activity of daily living using Functional Independence Measures. The result of this study showed that both groups were improved in the three measurements, however, group (1) showed significant improvement more than group (2). This study concluded that interferential current in addition to selected physiotherapy program was effective in relieving neuropathic pain for spinal cord injury patients.

Key words	:	Spinal cord injury**.**
	:	Interferential current**.**
	:	Neuropathic pain.
Arabic Title Page	:	**كفاءة التيار المتداخل في تسكين الآلام العصبية في مرضى إصابات النخاع الشوكي.**
Library register number	:	2683-2684.

Author	**:**	**Maha Mostafa Mokhtar Ibrahim.**
Title	**:**	**Functional Outcome of Ultrasound versus low power laser therapy in Patients with Discogenic Sciatica.**
Dept.	**:**	**Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.**
Supervisors	**:**	**Nawal Abd El Rauf.Abou shady.**
	:	**Omar Yusef Hammad.**
Degree	**:**	**Master.**
Year	**:**	**2011.**
Abstract	**:**	

Background: Sciatica is a common clinical problem causing pain and functional disability resulting from bulge or hemiation of one or more lumbar intervertebral discs is a frequent and often ebilitating event. Purpose: The purpose of this study was to evaluate and compare the effects of low power laser and low intensity ultrasound therapies on pain and function in patients with discogenic sciatica. Subjects: Thirty patients with discogenic sciatica (mean age 45. I 3 :I: 4.28 years, height 167.35:1: 7.14764 cm, weight 82.88 :I: 3.70 kg, and BM 129.72:1: 2.52 kg/m2). participated in this study. Materials and Methods: Patients were assigned into two equal groups; group A received low power laser and group B received ultrasound therapy; each group being composed of 15 sciatic patients resulting from lumbar disc bulge. Data of visual analogue scale (VAS) and oswestry disability index (ODI) were collected from each patient in both groups pre and post physiotherapy program. Results: Statistical analysis using paried student t-test and unpaired student t-test revealed that there were significant differences regarding VAS and ODI pre & post treatment in both groups A and B. There was significant difference in improvement in pain intensity in laser group (A) than in ultrasound group (B), however there was no significant difference in functional disability between the two groups. Conclusion: The physiotherapy program is not only effective with good result in patients with chronic sciatica, but also would reflect much better result with improvement in pain and functional disability if we add either low power laser or low intensity pulsed ultrasound to the treatment program.

Key words	**:**	**Sciatica.**
	:	**Ultrasound**
	:	**low power laser.**
	:	**low intensity ultrasound.**
	:	**laser therapy.**
	:	**Lasers.**
Arabic Title Page	**:**	**الناتج الوظيفى للعلاج بالموجات فوق الصوتية مقابل اشعة الليزر منخفض الشدة في مرضى عرق النسا الغضروفى.**

Library register number	:	**2557-2558.**

Author	:	**Nadia Mohammed Abd – Elhakim.**
Title	:	**Respiratory muscle function in multiple sclerosis.**
Dept.	:	**Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.**
Supervisors	:	**Nawal Abd El Rauf.Abou shady.**
	:	**Aza Abas Helm.**
Degree	:	**Master.**
Year	:	**2011.**
Abstract	:	

The aim of this study is to investigate the respiratory functions of multiple sclerosis patients further, to study the correlation of respiratory function impairment with the multiple sclerosis-induced disability level, duration of the disease and fatigue. The present study was conducted on forty MS patients. The Expanded Disability Status Scale (EDSS) scores mean (4.07±1.49) were evaluated to measure disability level. And fatigue descriptive scales are used to assess fatigue Respiratory functions tested in the laboratory of Fitness & rehabilitation unit. Patients were divided into 2 groups, group A; patients with normal lung volumes and group B; patients with restricted lung volumes. The data obtained in the present study indicated that patients with MS (ambulatory, ambulatory with assistance and wheelchair bound), have significant reduction in RMF and ventilatory function with more pronounced reduction of respiratory muscle function, and respiratory muscle weakness is apparent even in the early stages of MS, RMF are more sensitive tool than spirometry in evaluating respiratory dysfunction in MS. Respiratory muscle function is affected by both severity of the disease and duration of illness; it has a role on fatigue in MS patients.

Key words	:	multiple sclerosis**.**
	:	Respiratory functions**.**
	:	fatigue.
	:	**muscle function**
Arabic Title Page	:	**وظائف عضلات التنفس في مرض التصلب المتعدد.**
Library register number	:	2521-2522.

Author	:	**Rasha Mohammed Mahmoud El Rewainy.**
Title	:	**Forward Versus Backward Treadmill Training for Improving Gait in Patients with Stroke.**
Dept.	:	**Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.**
Supervisors	:	**Nawal Abd El-Raouf Abou Shady.**
	:	**Husam Salah Ahmed Mourad.**
Degree	:	**Master.**
Year	:	**2011.**
Abstract	:	

Purpose: the purpose of this study to determine whether forward or backward treadmill training is more effective in improving gait in patients with stroke. Thirty hemiparetic patients were selected from Faculty of physical therapy, Cairo University, out-patient Clinic and divided into two equal groups. Subjects in study group A (n=15) received forward walking on treadmill as well as a designed selected physical therapy program while study group B (n=15) received backward walking on treadmill as well as a designed selected physical therapy program. The following five parameters including muscle tone, time of ten meter walking test, distance of six minute walk test, asymmetry index of gait and laboratory examinations (2D motion) were measured before and after six weeks of treatment program. **Results:** there was significant improvement in the study group (B) in comparison to study group (A) regarding to the grades of spasticity according to modified ashworth scale (MAS) , time of ten meter walking test, distance of six minute walk test and the measured kinematic gait parameters. **Conclusion:** It can be concluded that backward treadmill training is effective in controlling spasticity, improving ten meter walking time, improving six minute walk distance, improving asymmetry index and kinematic gait parameters in stroke patients

Key words	:	Stroke**.**
	:	Gait.
	:	2-D motion**.**
	:	Treadmill training**.**
	:	Forward and Backward walking.
Arabic Title Page	:	المشى للأمام مقابل الخلف على جهاز السير الكهربائى لتحسين المشى فى مرضى السكتة الدماغية**.**
Library register number	:	2517-2518.

Author	:	**Salma Awad Elgamal.**
Title	:	**Evidence Based Study of Neurological Physical Therapy for Spasticity in Stroke Patients.**
Dept.	:	**Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.**
Supervisors	:	**Salah Abd-elmonem Sawan.**
	:	**Hatem Samir Mohamed.**
Degree	:	**Master.**
Year	:	**2011.**
Abstract	:	

Background: The purpose of this study was to evaluate which is more effective according to Evidence Based Medicine (EBM) (Botilinum toxin-A"BTX-A" or Functional Electrical Stimulation "FES") as a treatment modality for spasticity control in Stroke patients. Forty hemiplegic patients were assigned randomly into two equal groups. Subjects in GI (n = 20) received BTX-A in addition to selected physical therapy program for six weeks. Whereas subjects in GII (n = 20) received Functional electrical stimulation for six weeks in addition to the same selected physical therapy program. The evaluation process included hand grip strength assessment and fine movement assessment were measured before and after six weeks of treatment program. **Results:** After treatment there were significant difference in both the hand grip test and fine movement test scores between GI and GII and by comparing these results with EBM reviews performed on both modalities for management of spasticity results on the past fifteen years, the results revealed that BTX-A is more effective as a treatment modality in reducing/controlling spasticity than FES in addition to selected physical therapy program. **Conclusion**: It can be concluded that BTX-A in addition to physical therapy is a better modality than FES with physical therapy in controlling focal and segmental spasticity and improving hand functions in moderate spastic patients.

Key words	:	Stroke**.**
	:	Spasticity**.**
	:	Botilinum toxin**.**
	:	Functional electrical stimulation.
Arabic Title Page	:	**دراسة بالدلائل لوسائل العلاج الطبيعي للأعصاب في حالات التشنجات العضلية في مرضى السكتة الدماغية.**
Library register number	:	2611-2612.

Author	**:**	**Shaimaa Mohamed Abdelmageed.**
Title	**:**	**The influence of neurodynamic mobilization on chronic discogenic sciatica.**
Dept.	**:**	**Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.**
Supervisors	**:**	**Moshera Hassan Darwish.**
	:	**Hussein Ahmed Shaker.**
	:	**Mona Abdel Moniem Nada.**
Degree	**:**	**Master.**
Year	**:**	**2011.**
Abstract	**:**	

Background and objectives: Sciatica is a common clinical problem causing pain and functional disability. The purpose of this study was to determine the influence of neurodynamic mobilization of sciatic nerve on chronic discogenic sciatica. **Methods:** Thirty male patients suffering from chronic unilateral sciatica due to lumbar disc prolapse at L5-S1. The patients were assigned randomly into two equal groups, control group (G1) and study group (G2). The patients in control group (G1) received designed physical therapy program which consisted of electrotherapy and exercises whereas, the patients in the study group (G2) received the same physical therapy program as G1 in addition to, neurodynamic mobilization techniques (opening, gliding and tensioning techniques). Clinical and electrophysiological studies (Hoffmann reflex) were used for assessment. The clinical assessment of discogenic sciatica consisted of assessing pain intensity through numerical pain rating scale (NPRS) and measuring degree of hip flexion during straight leg raise (SLR). Assessment was done before and after four weeks of treatment (end of treatment) for both groups. **Results:** Results proved that post treatment; there was significant decrease in pain intensity in both groups but the improvement of pain in G2 was more than G1. There was significant improvement of degree of hip flexion during straight leg raise (SLR), latency of Hoffmann reflex (H-reflex) and amplitude of H-reflex in G2. While in G1, there was no significant improvement of degree of hip flexion during SLR, latency of H-reflex and amplitude of H-reflex. **Conclusion:** It can be concluded that suggested neurodynamic mobilization techniques are effective methods in treatment of chronic discogenic sciatica.

Key words	**:**	Discogenic sciatica**.**
	:	Lumbar disc prolapsed**.**
	:	Neurodynamic mobilization technique**.**
	:	Gliding techniques**.**
	:	Tensioning techniques
	:	Hoffmann reflex.

	:	Numerical pain rating scale
	:	Straight leg raise.
Arabic Title Page	:	تأثير تحريك العصب الديناميكى على عِرْق النَّسّا الغضروفى المزمن.
Library register number	:	2471-2472.

Author	:	**Sharif Khalil Hammash.**
Title	:	**Effect of Low Level Laser Therapy on the Common Peroneal nerve Traumatic Injury.**
Dept.	:	**Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.**
Supervisors	:	**Salah Abd El Monem Sawan.**
Degree	:	**Master.**
Year	:	**2011.**
Abstract	:	

The purpose of this study was to evaluate the effect of low level laser therapy on common peroneal nerve regeneration after traumatic injury. Thirty patients with drop foot due to common peroneal nerve lesion were included in this study. Patients were divided into two equal groups. study group and control group. patients in the study group received low level laser therapy in addition to repeated contraction exercises for 30 minutes per session, while patients in control group received placebo low level laser in addition to repeated contraction exercises for 30 minutes per session, Both groups were treated two times per week for ten weeks. Two evaluations were performed pre-treatment and after ten weeks post-treatment. The patients were assessed for nerve conduction velocity in common peroneal nerve and muscle power of anterior tibial muscle by Electronic dynamometer. The results of this study showed that both groups were improved in the two measurements, however, the study group showed significant improvement than the control group. It can be concluded that the low level laser therapy is essential in improvement of common peroneal nerve regeneration after traumatic injury

Key words	:	Nerve regeneration**.**
	:	Low Level Laser**.**
	:	Drop Foot**.**
	:	Common peroneal nerve.
	:	**Laser Therapy.**
Arabic Title Page	:	تأثير الليزر منخفض الجهد على إصابات العصب النعلي الرئيسي.
Library register number	:	2503-2504.

Author	:	**Tahani Fathai Mousa Mousa.**
Title	:	**Effect of pulsed ultra sonic on shoulder dysfunction in stroke patients.**
Dept.	:	**Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.**
Supervisors	:	**Abdulalim Atteya.**
Degree	:	**Master.**
Year	:	**2011.**
Abstract	:	

The background: Disorders of the shoulder complex are common after cerebrovascular accident (CVA), often leading to pain and impairing the return of the shoulder functions**. The purpose:** The purpose of this study was to investigate the effect of pulsed ultra sound on shoulder dysfunction in stroke patients. **Subjects and methods:** Thirty stroke patients were selected for this study, The patients were assigned randomly into two equal groups, the control group (GI) received a designed physical therapy program (PNF, strengthen exercises) and the study group (GII) received a designed physical therapy program (PNF, strengthen exercises) combined with pulsed ultra sound, Their ages ranged from 40 to 65 years and duration of illness ranged from one month to one year. Duration of treatment 12 session, three time per week. Shoulder pain was evaluated using Visual analogue scale, while functional abilities of shoulder were evaluated using Barthel Index (BI), and range of shoulder motion measured by universal goniometr, the evaluation was done pre and post treatment for both groups**. The results:** There were significant clinical improvement in shoulder function and severity of pain in group (I).While the higher degrees of improvement in function, severity of pain and range of motion in hemiplegic shoulder was attributed to pulsed ultra sound combined with traditional physical therapy program. **The conclusion:** pulsed ultrasound combined with a designed physical therapy program had positive effect in improving pain, functional abilities and range of movement in hemiplegic shoulder.

Key words	:	Stroke**.**
	:	Shoulder pain**.**
	:	Functional abilities**.**
	:	Range of motion**.**
	:	Pulsed ultra sound.
Arabic Title Page	:	تأثير الموجات فوق الصوتية المتقطعة على الخلل الوظيفي للكتف في مرضى السكتة الدماغية.
Library register number	:	2473-2474.