Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and Its Surgery

Master Degree

2019

Author	**:**	**Abd Elhady Samy Abu Mandour.**
Title	**:**	**Efficacy Of Phonophoresis With Corticosteroids On Bell's Palsy Patients.**
Dept.	**:**	**Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.**
Supervisors	**1.**	**Abd-Elalim Abd-Elfatah Ateya.**
	2.	**Youssef Mohamed Al Baalawy.**
	3.	**Sandra Mohamed Ahmed.**
Degree	**:**	**Master.**
Year	**:**	**2019.**
Abstract	**:**	

Background: Bell's palsy is an acute, generally unilateral paralysis or weakness of facial musculature consistent with peripheral facial nerve dysfunction, of no detectable cause; Additional symptoms frequently include pain around or behind the ear on the affected side, sometimes extending into the occipital or cervical regions. The purpose of this study was to Investigate the effect of phonophoresis with hydrocortisone on patients with acute bell's palsy. Methodology: thirty patients with acute bell's palsy both sexes, ages were ranged from (15-45) years were assigned into two equal groups (group a and b): group (A) This group consists of 15 patients received oral systemic steroids and a placebo effect of Phonophoresis (ultrasound only) while group (B) This group consists of 15 patients received the same oral drugs and hydrocortisone Phonophoresis.. Subjects were assessed objectively using Electro diagnostic testing by measuring percent of degeneration of the facial nerve and clinically by House Brackmann Grading scale Results: Considering the effect of the tested group (first independent variable) on percent of degeneration, "unpaired t test" revealed that the mean values of the "pre" test between both groups showed there was no significant differences. But, the mean values of the "post" test between both groups showed there was significant differences and this significant increase in favor of group B in compared to group A. Conclusion: It was suggested that phonophoresis with hydrocortisone is beneficial for patients with acute bell's palsy.

Key words	**1.**	**Bell's palsy.**
	2.	**Hydrocortisone.**
	3.	**Phonophoresis.**
	4.	**Corticosteroids On Bell's Palsy.**
Classification number	**:**	**000.000.**
Pagination	**:**	**109 p.**
Arabic Title Page	**:**	**تأثير الموجات فوق الصوتية مع الاسترويدات لعلاج حالات إلتهاب العصب السابع.**
Library register number	**:**	**6491-6492.**

Author	**:**	**Ahmed Mahmoud Moustafa Moustafa.**
Title	**:**	**Mulligan Technique Versus Muscle Energy Technique In Patients With Cervicogenic Headache.**
Dept.	**:**	**Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.**
Supervisors	**1.**	**Gehan Mousa Ahmed.**
	2.	**Mohammed Ahmed Samir.**
Degree	**:**	**Master.**
Year	**:**	**2019.**
Abstract	**:**	

Background: Cervicogenic Headache (CGH) is commonly found pain referred to the head as source of the cervical spine disorder and cause a substantial decline in the patient quality of life. A lot of manual therapy techniques have been described for the treatment of Cervicogenic Headache (CGH). Purpose: The purpose of the current study was to compare the effect of mulligan technique and muscle energy technique in improving cervicogenic headache. Subjects and Methods: A sample of 45 subjects (age ranged 35-45 years old) with Cervicogenic Headache (CGH) were included in current study. patients were randomly divided into three equal groups; Group (A) (Control Group), Group (B) and Group(C):15 participant each. The study included three main outcomes; The headache intensity which was measured by the headache disability index (HDI), the cervical range of motion that was measured by the cervical range of motion (CROM) and finally neck disability index (NDI) to assess neck pain. Treatment of Group (A): received selected physical therapy program including (Trans cutaneous electrical nerve stimulation(TENS)), Ultrasound(US) and Hot packs), Group (B) receiving the same program in addition to mulligan technique while Group (C) receiving the same program as group A in addition to muscle energy technique.Results: The results of the current study showed that there was no significant between three groups regarding (CROM) and the results (HDI) there was a significant difference between group A and group C in favor to group C with clinical improvement of group B compared to A or C. There was no significant difference between three groups with clinical improvement in group B compared to group A or C regarding NDI. Conclusion: It can be summarized that mulligan technique and muscle energy technique were effective in the treatment of patient with cervicogenic headache.

Key words	**1.**	**Cervicogenic Headache (CGH).**
	2.	**Muscle Energy Technique**
	3.	**Mulligan Technique**
Classification number	**:**	**000.000.**
Pagination	**:**	**116 p.**
Arabic Title Page	**:**	**أسلوب موليجان مقابل أساليب الطاقة العضلية في مرضي الصداع العنقي.**
Library register number	**:**	**6295-6296.**

Author	**:**	**Amany Saadallah Hassan.**
Title	**:**	**Prediction of return to work after mild traumatic brain injury by different assessment scales.**
Dept.	**:**	**Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.**
Supervisors	**1.**	**Eman Samir Fayez.**
	2.	**Ahmed El Fiki.**
	3.	**Ahmed Shawky Ali.**
Degree	**:**	**Master.**
Year	**:**	**2019.**
Abstract	**:**	

Background: Mild traumatic brain injury (m-TBI) based on a score of 13-14 on the Glasgow Coma Scale; associated with a long duration of posttraumatic amnesia and can hinder return to work . Early detection of disability and intervention training is a very important treatment strategy to enable the injured patients to return to their works.Aim of study:to predict effect of disability on Return to work (RTW) by assessment scales for patients with mild traumatic brain injury during hospital stay and post hospital discharge eight to twelve weeks follow up. Materials and Methods:A prospective cohort study of sixty-one patients of both sexes their ages ranged from 21 -65 Years with mild traumatic brain injury (m-TBI) admitted consecutively to Neurotrauma departments at emergency hospital, in , kasr AL-Aini hospital. Different assessment scales including ; Glasgow Coma Scale (GCS),The Montreal Cognitive Assessment (MOCA) Arabic Version , Disability Rating Scale (DRS) and post traumatic amnesia time (PTAT) were reported a detailed understanding of patients temporally changes in physical and mental statues and its impact on successful RTW and community integration. Results: The results revealed that Return to work and recovery from m-TBI occurred After hospital discharging between eight to twelve weeks in six patients (9.8%) , six to eight weeks in 28 patients (45.9%), two to four weeks in nine patients (14.8%) and one week in 18 patients (29.5%) and this was supported by using GCS, MOCA(High predicted scale (94.86%)) and DRS(High predicted scale (96.03%)) scales to predict and develop a suitable work plan according to patient disability. Conclusion: Return to work and recovery from mild traumatic brain injury occurred mainly between six and eight weeks and were continues followed for twelve weeks post-traumatic injury , which indicate a high rate of predictability of using MOCA, DRS and helped to develop a remedial plans Suitable for disability reasons.

Key words	**1.**	**Mild Traumatic Brain Injury (m-TBI).**
	2.	**Disability Rating Scale(DRS).**
	3.	**The Glasgow Coma Scale (GCS).**
	4.	**Montreal Cognitive Assessment (MoCA).**
	5.	**Prediction of return to work after brain injury.**
	6.	**Post Traumatic Amnesia Time(PTAT).**
Classification number	**:**	**000.000.**
Pagination	**:**	**75 p.**
Arabic Title Page	**:**	**التنبؤ بالعودة إلى العمل بعد الإصابة بالدماغية الخفيفة باستخدام مقاييس تقييم مختلفة.**
Library register number	**:**	**6555-6556.**

Author	**:**	**Amgad Abou-Taleb**
Title	**:**	**Robotic-Assisted Locomotor Training For Walking In Spinal Cord Injury Patients : Systematic Review.**
Dept.	**:**	**Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.**
Supervisors	**1.**	**Nawal Abou-Shady.**
	2.	**Ibrahim Hamoda.**
Degree	**:**	**Master.**
Year	**:**	**2019.**
Abstract	**:**	

Background: Robot-assisted gait training (RAGT) after spinal cord injury (SCI) induces several different neurophysiological mechanisms to restore walking ability, including the activation of central pattern generators, task-specific stepping practice and massed exercise. However, there is no clear evidence for the optimal timing and efficacy of RAGT in people with SCI. Objective: To summarize the best evidence of the effect of robotic-assisted locomotor training for walking in spinal cord injury patients . Methods: The review was carried out by using electronic database: Pubmed, Cochrane library, google scholar, reference lists, and Physiotherapy Evidence Database (PEDro). Randomized Control Trials (RCTs) were only included in this review and the others were excluded according to eligibility criteria. Results: Nine RCTs were only included in this review, six studies were analyzed by meta-analysis statistics, and the three other studies were analyzed by descriptive or qualitative analyses. The results of this review revealed that there was significant effect in motor function in lower extremity motor scale (LEMS) but no effect in walking function, modified ashworth scale and balance . Conclusion: Robotic-assisted has a minimal significant effect in patients with spinal cord injury.

Key words	**1.**	**Robotic-assisted.**
	2.	**Gait.**
	3.	**Locomotor Training.**
	4.	**Spinal cord injury.**
	5.	**Rehabilitation.**
	6.	**PEDro.**
	7.	**Systematic Review.**
Classification number	**:**	**000.000.**
Pagination	**:**	**103 p.**
Arabic Title Page	**:**	**تدريب المشى بمساعدة الانسان الالى المتنقل فى مرضى اصابة النخاع الشوكى : دراسة مرجعية.**
Library register number	**:**	**6461-6462.**

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

Author	**:**	**Fathy Badawy Abdo Sakr.**
Title	**:**	**Comparison Between Neural Mobilization And Carpal Bone Mobilization In Treating Carpal Tunnel Syndrome.**
Dept.	**:**	**Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.**
Supervisors	**1.**	**Enas Elsayed Mohamed.**
	2.	**Youssef Mohammed El Balawy.**
	3.	**Ahmed Gabry El Nagar.**
Degree	**:**	**Master.**
Year	**:**	**2019.**
Abstract	**:**	

Carpal tunnel syndrome (CTS) is the most common peripheral nerve entrapment, caused by compression of the median nerve at the wrist. Patients with CTS reported symptoms of numbness, tingling, and nocturnal burning pain. In advanced cases, a loss of grip and pinch strength may be found. Carpal tunnel syndrome is estimated to occur in 3% to 6% of the general population. Women are three times more likely to have CTS than men. Objective: The study aimed at evaluating and comparing the effect of neural mobilization (NM) and carpal bone mobilization (CBM) in improving symptpms of CTS. Methods: Thirty females with CTS were selected and randomized into two equal groups; (A) and (B). Group (A) received median nerve dynamic mobilization while group (B) received carpal bone mobilization. The duration of intervention was four weeks. Outcome measurements, before and after intervention, were pain assessment, nerve conduction studies (sensory & motor latency and conduction velocity) and finally, hand grip strength. Results: A statistically significant improvement was revealed in pain scores, nerve conduction parameters (sensory and motor distal latency and sensory conduction velocity) and hand grip strength within each group (p<0.05). Also, there was a statistically significant increase in hand grip strength in group (A) comparing to that of group (B) (p<0.05). In addition, no statistically significant difference in pain scores and nerve conduction parameters was found between both groups. Conclusion: It was concluded that both median nerve and carpal bone mobilizations were effective in improving pain, nerve conduction parameters and hand grip strength in patients with CTS in favor to neural mobilization which improved hand grip strength.

Key words	**1.**	**Carpal tunnel syndrome.**
	2.	**Bone mobilization.**
	3.	**Pain.**
	4.	**Hand grip strength.**
	5.	**Neural Mobilization.**
	6.	**Neurodynamic mobilization,.**
	7.	**Nerve conduction study.**
Classification number	**:**	**000.000.**
Pagination	**:**	**90 p.**
Arabic Title Page	**:**	**مقارنة بين تحريك العصب وتحريك عظام الرسغ فى علاج متلازمة ضيق النفق الرسغى.**
Library register number	**:**	**6739-6740.**

Author	**:**	**Gehad Mohamed Mohamedeen.**
Title	**:**	**Rate of Return to Work after Stroke.**
Dept.	**:**	**Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.**
Supervisors	**1.**	**Enas Elsayed.**
	2.	**Ahmed Shawky Ali.**
Degree	**:**	**Master.**
Year	**:**	**2019.**
Abstract	**:**	
Background: There are evidences that the rate of return to work (RTW) after stroke varies greatly depending on several factors. Objective The aim of the study was to determine the rate of RTW among stroke patients and factors affecting it. Subjects: One hundred stroke patients were recruited from out clinics of Faculty of Physical Therapy and from El-Kasar EL- Ainy hospital, Cairo University. Materials and Methods: A retrospective survey was conducted in which an interview was carried out with the patients. The survey included demographic data, medical data and work information. Results: The findings revealed that the rate of RTW was 37% of the total sample. Also, there was significant difference between RTW and independency in activities of daily living, white collar jobs, hours spent at work. Usage of public transport was significant difference with patient who did not return to work ($p<0.05$). On the other hand, there was no significant difference between RTW and stroke type, affected side, gender, use of public transport or physical rehabilitation ($p>0.05$). Conclusion: There are several factors affect rate of RTW of stroke patients and more cooperation is required between the medical team, vocational therapists and patient's family to help the patient to return to work.		
Key words	**1.**	**Stroke.**
	2.	**Physical rehabilitation.**
	3.	**Employment.**
	4.	**Vocational rehabilitation.**
	5.	**Return to Work after Stroke.**
Classification number	**:**	**000.000.**
Pagination	**:**	**72 p.**
Arabic Title Page	**:**	**معدل العودة الى العمل بعد الإصابة بالسكتة الدماغية.**
Library register number	**:**	**6363-6364.**

Author	**:**	**Habiba Zienhom Soubhy Mohamed.**
Title	**:**	**Effect Of Physical Therapy Interventions On Balance In Ataxic Multiple Sclerosis Patients.**
Dept.	**:**	**Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.**
Supervisors	**1.**	**Moshera Hasaan Darwish.**
	2.	**Nevin Mohielden Shalaby.**
	3.	**Ahmed Shawky Ali.**
Degree	**:**	**Master.**
Year	**:**	**2019.**
Abstract	**:**	

Background: Multiple sclerosis (MS) is a common, complex neurological disease. Balance disorders (BDs) and ataxic symptoms are frequent and challenging symptoms in MS, leading to abnormal postural stability, with adverse effect on patient's independence, participation and quality of life. *Purpose of the Study*: To investigate the effect of physical therapy interventions on static and dynamic balance in ataxic MS patients. *Methods:* Forty five remitting and relapse MS patients from both sexes with ataxic symptoms and EDSS score ranged from "2" to "4.5", represented the sample of the study. They were randomly assigned into three groups, control group (CG), study group I (GI) and study group II (GII). The patients in CG treated with conventional program of therapeutic exercise for balance disorders. The patients in study GI treated with the same physical therapy program as in CG in addition to core stability exercises. Study GII treated with the same physical therapy program as in CG in addition to task oriented training approach. The treatment was conducted two sessions per week for six weeks. Pre and post assessment of all variables of balance were done for each patient. Biodex stability system, Berg balance scale and functional reach test (FRT) were used to measure static and dynamic balance. *Results*: Post treatment, the results revealed significant improvement in stability index (SI), anterior posterior stability index (APSI) and non-significant improvement of mediolateral stability index (MLSI), Berg balance scale and FRT in CG. In the study groups (I, II) there was a significant improvement in all balance measures. Comparison of post treatment results of the three groups revealed a significant improvement of study GII compared to CG in all study measures, and of study GI in MLSI and APSI biodex measures (P<0.05). There was a non-significant improvement between CG and study GI in all balance measures (P>0.05). *Conclusion:* conventional balance training alone may be not sufficient to improve balance in ataxic MS patients. Rehabilitation should be multimodal; core stability exercises and task-oriented training in addition to conventional balance training are effective to improve balance. Task oriented training in addition to conventional balance rehabilitation seem to be favorable approach for improving balance in ataxic MS patients. It should be considered as an essential part of the physical therapy program for balance rehabilitation in ataxic MS patients.

Key words	**1.**	**Multiple sclerosis.**
	2.	**Task oriented trainin.**
	3.	**Ataxia.**
	4.	**Balance.**
	5.	**Core stability.**
Classification number	**:**	**000.000.**
Pagination	**:**	**141 p.**
Arabic Title Page	**:**	**تأثير اساليب العلاج الطبيعي على التوازن في مرضى التصلب المتناثر الترنحي.**
Library register number	**:**	**6765-6766.**

Author	**:**	**Heba Ali Mohamed Ali.**
Title	**:**	**Effect of Neuro Dynamic Mobilization on Pain and Hand Grip Strength in Cervical Radiculopathy Patients.**
Dept.	**:**	**Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.**
Supervisors	**1.**	**Enas Elsayed Mohamed.**
	2.	**Azza Abbas Ghali.**
	3.	**Youssef Mohamed ElBalawy.**
Degree	**:**	**Master.**
Year	**:**	**2019.**
Abstract	**:**	

Background: Cervical radiculopathy (CR) is a pathological condition of the cervical roots, which results in pain, sensory and motor deficits. There is some evidence to support the influence of neural mobilization on reduction of pain, improvement in grip strength. Aim of the study was to evaluate the effect of neural mobilization on pain and hand grip strength in patients with chronic cervical radiculopathy. Methods: Thirty patients with cervical Radiculopathy with pain radiating to upper limb and weak hand grip were selected, their age ranged between 30-50 years and were matched with inclousien criteria, and were divided into three equal groups Group (1) received neural mobilization for ulnar, median, and radial nerves in addition to aselected physical therapy program. Group (2) received neural mobilization for ulnar and median nerves in addition to the same selected physical therapy program. While group (3) received only the selected physical therapy program for four weeks. Assessment of pain using visual analogue scale (VAS) and hand grip strength using jamar hand-held dynamometer were done before and after treatment. Results: The findings revealed a statistically significant decrease of the mean values of the pain scores within each group and increase in the mean values of hand grip strength within each group post treatment ($p<0.05$). Also, there was no a statistically significant difference in handgrip strength score mean values between the affected and unaffected sides after treatment in group (1) which received median, ulnar, and radial nerves neurodynamic mobilization ($P>0.05$) On the opposite side, the results showed a statistically no-significant difference between the three groups regarding pain and hand grip strength mean values after treatment ($p>0.05$). Conclusion: Addition of neuro dynamic mobilization techniques to the convential physical therapy program is effective in decreasing pain and increasing hand grip strength in chronic cervical radiculopathy

Key words	**1.**	**Cervical radiculopathy.**
	2.	**Grip strength.**
	3.	**Neuro Dynamic mobilization.**
	4.	**Visual analuge scale.**
	5.	**Pain.**
Classification number	**:**	**000.000.**
Pagination	**:**	**105 p.**
Arabic Title Page	**:**	**تاثير التعبئة العصبية الديناميكيه على الالم وقوه قبضه اليد فى مرضى اعتلال الجذور العنقية.**
Library register number	**:**	**6675-6676.**

Author	**:**	**Heba Gamal Sayed Ahmed**
Title	**:**	**Frequency And Characteristics of Patient with Traumatic Spinal Cord Injuries in Cairo University Hospitals**
Dept.	**:**	**Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.**
Supervisors	**1.**	**Eman Samir M.Fayez**
	2.	**Ahmed AbdallahSoliman El-Fiki**
	3.	**AMINA AWAD**
Degree	**:**	**Master.**
Year	**:**	**2019.**
Abstract	**:**	

Background: Traumatic spinal cord injury (SCI) is a catastrophic event that is sudden and unexpected and can result in disturbances to normal sensory, motor, or autonomic function all of which can be devastating for the individual, both socially and economically. To our knowledge, local epidemiological study of traumatic SCI has not been carried out previously in Cairo, contradictory few studies were conducted about the prevalence of traumatic SCI in Egypt. One of these studies was held in Al-Quseir City at the Red Sea Governorate in Egypt . Aim of study: To identify the frequency and characteristics of traumatic SCI among the population of Cairo .Patient and Methods: Medical records of patients with traumatic SCI from Neurosurgery Department at Kasr Al-Ainy Educational Hospital in Cairo, Egypt, were reviewed from the first of January 2017 to 31 December 2018. Demographic characteristics, etiology, neurological level were analyzed. Results: A total of 65 medical record of patients with traumatic SCI were reviewed during the mentioned period. The male to female ratio was 4.40:1. The mean age at injury was 32.18 years. The most frequent cause of traumatic SCI was falls (49.2%), followed by traffic accidents (43.1%). The neurological level of injury was 52.3% in cervical region, 30.8% in lumbar region and finally 16.9% in thoracic region. The frequency of traumatic SCI represent 2.13% of all cases admitted during period between January 2017 to December 2018. Conclusion: Falls were the main causes of traumatic SCI among people living in Cairo with higher incidence to cervical lesion. Concerning gender, men have significantly higher rate of injury compared to women especially the young adult population. These information pose a challenge to the society health system to develop preventive strategies to SCI, improve the services and quality of life to Egyptian people living with SCI.

Key words	**1.**	**Traumatic spinal cord injury.**
	2.	**Etiology.**
	3.	**World health organization.**
	4.	**Cairo University Hospitals.**
Classification number	**:**	**000.000.**
Pagination	**:**	**58 p.**
Arabic Title Page	**:**	**دراسة تكرار وخصائص اصابات الحبل الشوكى بمستشفيات جامعة القاهرة.**
Library register number	**:**	**6629-6630.**

Author	**:**	**Heba Mohammed Gaber Abd El Fadiel.**
Title	**:**	**Relation Between Spasticity and Carpal Tunnel Syndrome in Patients With Stroke.**
Dept.	**:**	**Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.**
Supervisors	**1.**	**Waleed Talat Mansour.**
	2.	**Ahmed Mohamed Gamal El Din.**
	3.	**Youssef Mohammed Mohamed.**
Degree	**:**	**Master.**
Year	**:**	**2019.**
Abstract	**:**	

Background: Stroke is the most common cause of mortality and is one of the most common causes of morbidity in the world. Polyneuropathies and entrapment neuropathies are known as the complications of stroke. The purpose of this study was to investigate the relation between carpal tunnel syndrome in the affected and non-affected hands in patients with stroke. Methodology: sixty stroke hemiparetic patients were assigned into three equal groups (group a, b and c): group (A) with mild spasticity (grade 1 and 1+) while group (B) with moderate spasticity (grade 2 and 3) and group (c) with severe spasticity (grade 4) according to modified ashowrth scale. Patients were assessed using Electrodiagnostic testing (nerve conduction velocity) and clinical tests (Phalen's test, Tinel's sign, Durkan's test and the hand elevation test). Results: This study revealed that there was a significant effect of spasticity on distal latency, MCV and peak latency (Wilks' Lambda = 0.23; F (12,104) = 9.3, p = 0.001) There was a significant decrease in distal latency of the affected and non affected sides of group A compared with that of group B and group C (p > 0.05), while there was no significant between group B and C (p > 0.05).There was a significant increase in MCV of the affected and non affected sides of group A compared with that of group B and group C (p > 0.001), while there was no significant between group B and C (p > 0.05).There was a significant decrease in peak latency of the affected and non affected sides of group A compared with that of group C (p < 0.05). There was no significant difference in peak latency of the affected and non affected sides between group A and B and between group B and C (p > 0.05). Conclusion: It was concluded that there was a relation between spasticity and carpal tunnel syndrome in patients with stroke.

Key words	**1.**	**Stroke.**
	2.	**Carpal tunnel syndrome.**
	3.	**Paretic hand.**
	4.	**Spasticity.**
Classification number	**:**	**000.000.**
Pagination	**:**	**132 p.**
Arabic Title Page	**:**	**العلاقة بين التشنج العضلي ومتلازمه ضيق النفق الرسغي في مرضي السكتة الدماغية.**
Library register number	**:**	**6621-6622.**

Author	**:**	**Hend Hasan El Haroni.**
Title	**:**	**prevalence of cervicogenic headache and forward head forward head posture among clinical pathologists.**
Dept.	**:**	**Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.**
Supervisors	**1.**	**Nawal Abo Shady.**
	2.	**Hamada Ahmed Hamada.**
Degree	**:**	**Master.**
Year	**:**	**2019.**
Abstract	**:**	

Background:Clinical pathologists are highly trained medical professionals who play an essential part in the diagnosis and therapy planning of malignancies and inflammatory diseases. Their work require long periods of microscope and computer work and assuming awkward posture most of work time whether sitting or standing. This make them at risk of musculoskeletal disorders like forward head posture and cervicogenic headache. Purpose: of this study was to investigate the prevalence of forward head posture and cervicogenic headache among clinical pathologists. Methods: There were 100 of clinical pathologists in the study. Age between 23 to 45 years of both sexes were recruited from Many hospitals; El Menshawy General Hospital, EL Homiat Hospital and several laboratory clinics; Saridar lab., First Lab., Al Shefaa Lab., Al Ahram Lab. many other laboratory clinics. The Diagnostic criteria developed by Cervicogenic Headache International Study Groupfor diagnosis of cervicogenic headache was used, the photography was used to measure the craniovertebral angle as an indicator for presence of forward head posture, the AutoCAD (2014) software program was used to analyze the photos and the (CROM) was used to measure range of motion deficits. Results: The statistical analysis revealed that the percent of (CGH) among clinical pathologists were (48%) had cervicogenic headache. While there were (52%) of had no cervicogenic headache. The percent ofForward head posture were (95%) of clinical pathologists. While there were (5%) had normal *angle*. Conclusion: Most clinical pathologists had forward head posture 95% which is one of the most common musculoskeletal disordersand around half of them 48% had (CGH) such high percent make us in need to pay attention on ergonomic considerations and right postures during work .

Key words	**1.**	**Prevalence**
	2.	**Cervicogenic headache**
	3.	**Clinical pathologists**
	4.	**head posture.**
	5.	**clinical pathologists.**
Classification number	**:**	**000.000.**
Pagination	**:**	**99 p.**
Arabic Title Page	**:**	**مدي انتشار وضع الرأس الأمامي والصداع العنقي بين أطباء الباثولوجيا الإكلينيكي.**
Library register number	**:**	**6701-6702.**

Author	**:**	**Hayaa Yousri Hussien Khalifa**
Title	**:**	**Effect of deep neck flexor strengthening in cervical radiculopathy caused by forward head posture (A Systematic Review).**
Dept.	**:**	**Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.**
Supervisors	**1.**	**Eman samir Mohmad Fayez.**
	2.	**Ahmed Abdullah Soliman El Fiki.**
	3.	**Mahmoud Yassin El Zanaty.**
Degree	**:**	**Master.**
Year	**:**	**2019.**
Abstract	**:**	
Background: In clinical practice, strengthening of deep neck flexor muscle decreasing pain in cervical radiculopathy. Aim of study: To systematically review and summarize the best evidence on efficiency of deep flexor cervical muscle strength for cervical radiculopathy and its causes. Study design: review of randomized controlled trials that are considering deep neck flexor strengthening in cervical radiculopathy patients. Study sample: The study sample comprised treatment studies analyze results of exercise containing deep neck flexor in cervical radiculopathy caused by forward head posture . Outcome measured: Crainovertebral angle, pain, disability, respiratory function FVC, FEV_1.Method: A literature search from January 2000 up to 2018 was performed in PubMed, Cochrane, sciencedirect, and PEDro by two authors independently selected studies. The methodological quality of studies was assessed using Pedro scale. Result: seven randomized controls trial ranged from low to moderate quality evidence suggested that short term effect of pain ,disability, crainovertebral angle and respiratory function when compare the deep neck flexor strengthening with another treatment and then taken four studies enrolled in Meta-analyses. Conclusion: The findings from this review that suggest the evidence of deep neck flexor strengthening in cervical radicuopathy caused by forward head posture is not sufficient.		
Key words	**1.**	**Deep neck flexor.**
	2.	**Pain.**
	3.	**Respiratory function.**
	4.	**cervical radiculopathy.**
	5.	**Systematic Review - forward head posture.**
	6.	**forward head posture.**
	7.	**Craniovertebral angle.**
	8.	**Disability.**
Classification number	**:**	**000.000.**
Pagination	**:**	**92 p.**
Arabic Title Page	**:**	**تقوية عضلات الثني العميقة في حالات اعتلال الضفيرة العصبية (دراسة مرجعية).**
Library register number	**:**	**6543-6544.**

Author	**:**	**Mahmoud Mohamed Nabil.**
Title	**:**	**Assessment Of Postural Instability In Whiplash Injury Patients.**
Dept.	**:**	**Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.**
Supervisors	**1.**	**Mohamed Nabil El Bahrawy.**
	2.	**Sherif Gamal Al Din Al Mekawi.**
	3.	**Walaa Mohammed Abd El Aziz.**
Degree	**:**	**Master.**
Year	**:**	**2019.**
Abstract	**:**	

Objectives: This study was designed to investigate postural instability in Egyptian patients with whiplash injury and to correlate between grades of whiplash injury, level of cervical pain, limitation of cervical range of motion and postural instability. Subjects and methods: Forty-one Egyptian subjects from both genders were selected for this study; eleven normal subjects and thirty patients with whiplash injury (grade two and three according to Québec Task Force classification). The eleven normal subjects were included in group A, while thirty patients were assigned into two groups; group B for patients with grade two of whiplash injury and group C for patients with grade three of whiplash injury. They were assessed to detect any disturbance in the postural stability after whiplash injury. The measured variables were pain by Visual Analogue Scale, cervical range of motion by Cervical Range of Motion Goniometer and overall stability index by Biodex Balance System. Results: There is significant difference of decreasing in all cervical movements ($P < 0.001$) and increasing in Overall Stability Index ($P < 0.004$ and $P < 0.001$ respectively) in patients who had grade two and three whiplash injury (Groups B and C) comparing to the normal subjects (Group A). There is significant difference of increasing in pain measurements ($P< 0.003$) and Overall Stability Index ($P < 0.001$), and decreasing in cervical extension movement only ($P < 0.001$) in patients who had grade three whiplash injury (Group C) comparing to patients with grade two whiplash injury (Group B). Also, there is strong correlation in group B only between Visual Analogue Scale and bending to right and left ($r = -0.7$ & $p < 0.011$) and ($r = -0.6$ & $p < 0.025$) respectively.

Key words	**1.**	**Whiplash Injury.**
	2.	**VAS.**
	3.	**Pain.**
	4.	**Postural Instability.**
	5.	**CROM Goniometer.**
	6.	**Biodex Balance System.**
Classification number	**:**	**000.000.**
Pagination	**:**	**125 p.**
Arabic Title Page	**:**	**تقييم عدم الثبات الجسدى عند مرضى الإصابة المصعية بالرقبة.**
Library register number	**:**	**6239-6240.**

Author	**:**	**Michel Alber Fawzy Bouls.**
Title	**:**	**Influence Of Transcranial Direct Current Stimulation Of Stroke Patients On Depression.**
Dept.	**:**	**Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.**
Supervisors	**1.**	**Eman Samir Mohamed Fayez.**
	2.	**Taha Kamel.**
	3.	**Islam Mahmoud Abdallah AL-Azab.**
Degree	**:**	**Master.**
Year	**:**	**2019.**
Abstract	**:**	

Background: The aim of this work was to investigate the influence of transcranial direct current stimulation on improving depression in stroke patients. Subjects and Methods: forty hemiparetic stroke patients from both sexes diagnosed with post stroke depression represent the sample of this study. The patients' ages ranged from 45 to 60 years with a mean value of 55.475 ± 4.01 years. They were assigned randomly into two groups equal in number; the study group A (GA) and the control group B (GB). The control group GB treated by the prescribed medication only and sham TDCS. The study group GA treated by the same prescribed medications for depression as the control GB in addition to transcranial direct current stimulation for 30 minutes, three times per week for one month. Depression was evaluated by Hamilton Depression scale pre and post treatment in both groups and quality of life was evaluated by The Stroke Specific Quality Of Life scale. Results: Comparison of each variable pre and post treatment in each group revealed a significant improvement in all different parameters in study group (GA) P ≤ 0.05; over the control group. Comparison of post treatment results of both groups showed that TDCS used in study group GA showed significant reduction in post stroke depression and Stroke Specific Quality Of Life than group B. Conclusion: TDCS has significant effect on treatment of depression and Stroke Specific Quality Of Life in stroke patients.

Key words	**1.**	**Stroke.**
	2.	**Stroke Specific Quality Of Life.**
	3.	**Post stroke depression.**
	4.	**TDCS.**
Classification number	**:**	**000.000.**
Pagination	**:**	**86 p.**
Arabic Title Page	**:**	**تاثير التنبيه بالتيار الكهربائي المباشر عبر الجمجمه في علاج الاكتئاب بمرضي السكته الدماغيه.**
Library register number	**:**	**6395-6396.**

Author	**:**	**Mohamed Ahmed Saleh Bakr.**
Title	**:**	**Effect of McKenzie exercises on lumbosacral angle in patients with radiculopathy.**
Dept.	**:**	**Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.**
Supervisors	**1.**	**Wael Salah Shendy.**
	2.	**Hatem Samir Mohamed.**
	3.	**Walaa Mohammed Abd El Aziz.**
Degree	**:**	**Master.**
Year	**:**	**2019.**
Abstract	**:**	

Background: Lumbosacral radicular pain is a common symptom affecting the general population annually. The core stability exercises and McKenzie exercises are effective noninvasive treatment for lumbosacral radiculopathy (LSR). The lumbosacral angle (LSA) is important in the management of patients with low back disorders. Purpose: This study aimed to determine the efficacy of McKenzie exercises on LSA in patients with LSR. Methods: This prospective study was conducted in the Department of Physical Therapy of Gamal Abdel Nasser hospital, Alexandria. Thirty patients from both genders with discogenic lumbosacral radiculopathy participated in this study. The patients were randomly allocated to one of two equal groups. Group one received core stability exercises. Group two received core stability exercises and McKenzie exercises on the lumbosacral area. The patients were assessed before treatment, two and four weeks after treatment by visual analogue scale (VAS) for measurement of pain, Oswestry low back disability questionnaire for measurement of functional disability and Rippstein plurimeter for measurement of lumbosacral angle. Results: There was a significant decrease of back pain in G2 after four weeks of treatment in comparison to G1, also there was a significant decrease of leg pain and functional disability in G2 after two weeks and after four weeks of treatment in comparison to G1. There was no significant difference between both groups in lumbosacral angle. Conclusion: Both McKenzie exercises and core stability exercises are effective in reduction of leg pain and functional disability, while adding McKenzie exercises to core stability exercises can decrease back pain also, with more reduction of leg pain and functional disability, but there is no significant difference between core stability and McKenzie exercises in decreasing the lumbosacral angle. Implications: McKenzie exercises seems to be a good option to improve the effectiveness of core stability exercises in the treatment of discogenic lumbosacral radiculopathy

Key words	**1.**	**Radiculopathy.**
	2.	**Core stability exercises.**
	3.	**McKenzie exercises.**
	4.	**Lumbosacral angle.**
Classification number	**:**	**000.000.**
Pagination	**:**	**99 p.**
Arabic Title Page	**:**	**تأثير تمارين ماكنزي على الزاوية القطنية العجزية في مرضى اعتلال الجذور العصبيه.**
Library register number	**:**	**6241-6242.**

Author	**:**	**Mohamed Ibrahim Mohamed Morsi.**
Title	**:**	**Mobilization With Movement Versus Neural Mobilization On The Discogenic Lumbosacral Radiculopathy.**
Dept.	**:**	**Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.**
Supervisors	**1.**	**Hussein Ahmed Shaker.**
	2.	**Amira Mohamed El Gohary.**
	3.	**Wael Salah Tawfik Shendy.**
Degree	**:**	**Master.**
Year	**:**	**2019.**
Abstract	**:**	
The purpose of the study was to compare between the effects of Mulligan mobilization with movement and neural mobilization on the symptoms of discogenic lumbosacral radiculopathy and measure both symptomatic and functional improvement; This study was conducted in the department of physical therapy of El-Gomhoria general hospital, Alexandria, Egypt. It involved forty patients their ages ranged from thirty to forty five years old were suffering from unilateral discogenic lumbosacral radiculopathy. Patients were randomly allocated into one of two equal groups. Study group (A) received twelve sessions of neural tissue mobilization over the symptomatic lower limb over a period of four weeks. Study group (B) received spinal mobilization with leg movement over the L4/L5 vertebrae for twelve sessions for four weeks. Patients were assessed before and just after the twelve-session treatment regimen. Assessment involved measurement of H-reflex amplitude and latency and application of straight leg raise test, Modified Schober's test and Oswestry low back disability questionnaire. The results of the study revealed significant improvement in the outcome measures (Oswestry scores, Modified Schober's test values, Straight leg raise angles and H-reflex amplitude and latency values) after treatment in both groups. On other hand, there was no significant difference between the two groups in the values of the outcome measures. It was concluded that in patients with unilateral discogenic lumbosacral radiculopathy, neural tissue mobilization and Mulligan mobilization are equally effective for pain reduction and functional improvement.		
Key words	**1.**	**Mobilization with movement**
	2.	**neural mobilization.**
	3.	**H-reflex.**
	4.	**Discogenic Lumbosacral Radiculopathy.**
Classification number	**:**	**000.000.**
Pagination	**:**	**93 p.**
Arabic Title Page	**:**	**مقارنة بين فاعلية المرونة مع الحركة و التحريك العصبي علي إعتلال الجذور القطنية العجزية المصاحب للإنزلاق الغضروفي.**
Library register number	**:**	**6305-6306.**

Author	**:**	**Mona Adel Abd Eltwab Farag.**
Title	**:**	**Effect of Manual Therapy with Task Oriented Training on Hand Function in Stroke Patients: A Randomized Controlled Study.**
Dept.	**:**	**Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.**
Supervisors	**1.**	**Abeer Abo Bakr Elwishy.**
	2.	**Hanan Helmy Mohamed Elgendy.**
Degree	**:**	**Master.**
Year	**:**	**2019.**
Abstract	**:**	

Background: Proper hand function is essential for everyday life activities. However, post stroke, muscle contracture and joint stiffness develop as a common consequence of immobility in hand. Objective: This study was conducted to determine the effect of adding mobilization to task oriented training on hand function in chronic stroke patients. Methods: Thirty chronic stroke patients participated in this study and were randomly divided into two equal groups; study group, which received joints mobilization followed by task oriented training for the affected hand and control group, which received task oriented training for the affected hand. Both groups received treatment three times per week for a period of six weeks. All patients were evaluated before and after therapy. The primary outcome measures were hand function that was assessed by Jebsen-Taylor Hand Function Test, and active and passive wrist extension range of motion that was measured by a standard goniometer. The secondary outcome measure was grip strength that was assessed by a JAMAR Adjustable Hand Dynamometer. Results: The results of this study showed that post treatment; both groups showed a significant improvement in all outcome measures compared with pre treatment. However, there was a statistically significant difference between both groups regarding all the outcome measures in favor to the study group. Conclusion: The present study revealed that the combination between mobilization and task oriented training is more effective in improving hand function post stroke than task oriented training alone

Key words	**1.**	**Hand function.**
	2.	**Task oriented training**
	3.	**Mobilization.**
	4.	**Stroke.**
	5.	**Randomized Controlled Study.**
Classification number	**:**	**000.000.**
Pagination	**:**	**122 p.**
Arabic Title Page	**:**	**تأثير العلاج اليدوي مع التدريب الموجه نحو المهمة على وظيفة اليد في مرضى السكتة الدماغية.**
Library register number	**:**	**6553-6554.**

Author	**:**	**Moustafa Samir Mohamed Ameen.**
Title	**:**	**Role of Non Affected Side Relaxation on Function Outcome in Patient With Bell's palsy.**
Dept.	**:**	**Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.**
Supervisors	**1.**	**Mohamed Nabil El Bahrawy**
	2.	**Mohamed Hamed Rashad**
	3.	**Youssef Mohamed Mohamed El Balaawy**
Degree	**:**	**Master.**
Year	**:**	**2019.**
Abstract	**:**	

Background: Facial paralysis is an extremely frightening situation and gives extreme stress to patients because obvious disfiguring face may cause significant functional, aesthetic, and psychological disturbances. Purpose: to investigate the role of non-affected side relaxation on function outcome in patient with Bell's palsy. Methodology: Thirty patients from both genders participated in this study. They were randomly assigned to two equal groups. Control group received conventional physical therapy (Laser Therapy, Faradic stimulation, Therapeutic facial massage and Facial exercise) on the affected side only for two months with session duration of 50 minutes. The Study group received a designed relaxation program (Transcutaneous electrical nerve stimulation (*TENS*), Therapeutic facial massage, Intraoral massage and Ice massage) on the non affected side and conventional physical therapy program on the affected side for two months with session duration of one hour and 20 minutes. Patients were assessed with electroneuronography (ENog) and facial grading system (FGS) before treatment, one month after treatment and two months after treatment. Results: The study revealed that function outcome has improved significantly in each group with no significant difference between both groups (P>0.05). Conclusion: It can be concluded that relaxation of non-affected side is not an effective treatment approach in patient with Bell's palsy.

Key words	**1.**	**Bell's palsy.**
	2.	**Facial paralysis.**
	3.	**Facial grading system.**
	4.	**Function outcome.**
	5.	**Relaxation program.**
Classification number	**:**	**000.000.**
Pagination	**:**	**94 p.**
Arabic Title Page	**:**	**دور إسترخاء الجانب الغير مصاب على النتائج الوظيفية في مرضى شلل بيل.**
Library register number	**:**	**6837-6838.**

Author	**:**	**Rabab Rabie Hamed Emam.**
Title	**:**	**Robotic gait training in stroke patients (systematic review).**
Dept.	**:**	**Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.**
Supervisors	**1.**	**Abdulalim A. Atteya.**
	2.	**Moataz M. El Semary.**
Degree	**:**	**Master.**
Year	**:**	**2019.**
Abstract	**:**	

Objective :To assess the efficacy of robotic usage in gait training in adult patient with stroke .Data sources : a literature search covering the years 2005 till 2019 in Pub med , NCBI , Sage, Cochrane ,Medline, PEDRO. Study selection: Studies of adult stroke patients , in which experimental groups received robotic gait training (Lokomat device) with or without conventional physical therapy and the control group received only conventional physical therapy . Outcomes: studies included gait parameter and balance .Study design: all studies are randomized controlled trials. Data extraction: study quality was assessed by PEDRO scale. All studies were graded equal to or more than 5 out of 10. Results: Data for meta-analysis could be extracted from the included studies for change in Cadence, 10 minute walking test, Speed and Berg balance scale variables. The 95% confidence intervals of the overall effect estimate overlap null effect value so, the Meta-analysis level revealed a non-significant difference between the experimental groups and control groups. Conclusion: Gait parameters showed significant improvement in both groups in studies with no superiority of one treatment over another may be because of the different protocols of Lokomat training or different response of the patients toward machine safety .So, Lokomat device need to be more tested.

Key words	**1.**	**Robot.**
	2.	**10MWT.**
	3.	**Hemiplegia.**
	4.	**Stroke.**
	5.	**Gait training in stroke.**
	6.	**Systematic review.**
	7.	**Balance.**
	8.	**Lokomat.**
Classification number	**:**	**000.000.**
Pagination	**:**	**90 p.**
Arabic Title Page	**:**	**تدريبات المشي بأستخدام الروبوت في مرضي السكتة الدماغية (مراجعة منهجية).**
Library register number	**:**	**6743-6744.**

Author	**:**	**Radwa Yousry Mohammad Foaad.**
Title	**:**	**Balance assessment during Cognitive Dual Task Performance in selected types of Diabetic Polyneuropathy.**
Dept.	**:**	**Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.**
Supervisors	**1.**	**Nawal A. Abo Shady.**
	2.	**Shaimaa I. El Jaafary.**
Degree	**:**	**Master.**
Year	**:**	**2019.**
Abstract	**:**	

Background: Diabetes Mellitus (DM) results in an impairment of cognitive tasks. Few studies addressed the effect of cognitive –motor dual task in Diabetic Peripheral Neuropathy (DPN) patients. Purpose: to investigate and compare the effect of single and dual tasks on balance in DPN patients. Methods: Sixty subjects distributed into 3 equal groups, GI (sensory DPN patients), GII (sensory and motor DPN patients) and GIII (healthy subjects as a control group) participated in the study. All subjects with age ranged from 50 to 60 years old. The performance of all groups were assessed using Montreal - Cognitive Assessment (MoCA), Biodex Balance System (dynamic balance and limit of stability), mental task (verbal fluency & arithmetic test) and performing the mental task while balancing as a dual task. This study is a cross section design. Results: There was a significant decrease in MoCA , stability in dynamic balance and limit of stability Biodex Balance measures at dual task in GI & II compared to GIII (p = 0.0001). Also, there was a significant increase in stability in overall, left & right stability at dual task of GI compared with that of GII. There was highly significant decrease in number of words at dual task compared with that at single task in GI & II (p = 0.0001). Also, there was a significant increase in number of words of GI compared with that of GII (p = 0.001).There was no significant difference in number of correct arithmetic task between single and dual task in GI & III (p = 0.54, p = 0.07 respectively), while in GII there was a significant decrease in number of correct arithmetic task at dual task compared with that at single task (p = 0.0001). Conclusion: Cognitive- motor dual task performance is very important to investigate its effect on balance and to be recommended in physical therapy program for DPN patientsResults: The study showed that scale index of clarity equals 87.14%, the mean proportion of clearance equals 87.14%, scale index of content validity equals 96.67%, and the mean proportion of relevance equals 96.67%. The scale items were filled by 95% in all sheets. The scale needed less than 7 minutes to be filled. Cronbach's alpha equals 0.915 (0.877, 0.915) and all Spearman's correlations between test and retest results were statistically significant, r equals 0.995. Conclusion: Arabic-language version of the BCTQ has face and content validity, feasibility, internal consistency and test retest reliability enough in assessment of carpal tunnel syndrome patients.

Key words	**1.**	**Dual task.**
	2.	**DPN.**
	3.	**Balance.**
	4.	**Cognition.**
	5.	**Diabetic Polyneuropathy.**
	6.	**Biodex Balance System.**
Classification number	**:**	**000.000.**
Pagination	**:**	**116 p.**
Arabic Title Page	**:**	**تقييم الإتزان أثناء أداء المهمة المزدوجة المعرفية فى أنواع مختارة من إعتلال الأعصاب السكرى**
Library register number	**:**	**6695-6696.**

Author	**:**	**Rehab Sayed Ahmed.**
Title	**:**	**Effect of Proprioceptive Training on Balance in Patients with Parkinson's Disease.**
Dept.	**:**	**Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.**
Supervisors	**1.**	**Mohammed Nabil El-Bahrawy.**
	2.	**Nabil Kitchner Estawro.**
	3.	**Nagwa Ibrahim Mohammed Rehab.**
Degree	**:**	**Master.**
Year	**:**	**2019.**
Abstract	**:**	

Background: Parkinson's Disease (PD) is a progressive neurodegenerative disease occurs at late years of life and characterized by four cardinal signs of bradykinesia, static tremor, rigidity, and postural instability. Improvement in the inputs from proprioceptors using sensory specific balance training would improve balance among patients with PD. The aim of this study was to determine the effect of proprioceptive training on balance in patients with idiopathic PD. Patients and Methods: Thirty male patients with PD with age ranged from 55 to 70 years were included in this study. Patients were divided into two equal groups (GI and GII), GI received program of proprioceptive training in addition to traditional physical therapy and GII received the traditional physical therapy. The physical therapy program was conducted three times per week, for 6 weeks. All patients were assessed for balance before and after therapy using Biodex Balance System (BBS). The results: showed a statistically significant improvement of all dynamic balance indices including (overall stability index, antro-posterior stability index and medio-lateral stability index) and overall direction control in both GI and GII while there is a slight increase in improvement in GI in post treatment. There was a statistically significant improvement in overall directional control in both GI and GII with statistically non-significant difference between both groups post treatment. Conclusion: Both proprioceptive training and traditional physical therapy had a positive effect on balance in patients with idiopathic PD.

Key words	**1.**	**Parkinson's disease.**
	2.	**Biodex Balance System.**
	3.	**Postural instability.**
	4.	**Physical therapy for Parkinson's disease.**
	5.	**Proprioceptive Training on Balance.**
	6.	**Balance - Parkinson's Disease.**
Classification number	**:**	**000.000.**
Pagination	**:**	**80 p.**
Arabic Title Page	**:**	**تأثير تدريب المستقبلات الحسية العميقة علي الاتزان في مرضي الشلل الرعاش.**
Library register number	**:**	**6397-6398.**

Author	**:**	**Samar Adel Ibrahim Farahat.**
Title	**:**	**Effect of McKenzie versus Lumbar Stabilization Exercises in Patients with Post Laminectomy Syndrome.**
Dept.	**:**	**Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.**
Supervisors	**1.**	**Mohamed Nabil El Bahrawy.**
	2.	**Ashraf Hesham Abo El Nasr.**
	3.	**Nagwa Ibrahim Mohammed Rehab.**
Degree	**:**	**Master.**
Year	**:**	**2019.**
Abstract	**:**	

Background: Although not well known, post-laminectomy syndrome (PLS) is an important cause of chronic back pain, which may lead to decreased quality of life, disability and psychological disorders. The purpose: This study aimed to determine and compare between the effectiveness of core stabilization and McKenzie's exercises on intensity of pain and disability in patients with PLS. Methods: Forty five patients with PLS with age ranged from 30 to 40 years were enrolled in this study and equally divided into three groups: Group (A) received conventional physical therapy program (Ultrasound, TENS, and moist heat), group (B) received lumbar stabilization exercises and group (C) received McKenzie exercises (three sessions per week for four weeks). Intensity of pain was assessed using Visual Analogue Scale (VAS), disability was assessed using the Oswestry disability Questionnaire. Transversus abdominis (TrA) activation capacity and lumbo-pelvic stability were assessed using pressure biofeedback unit. Results: There were a statistically significant improvement in the mean values of pain intensity and functional disability scores in the three groups ($p<0.05$) post treatment. On comparing among groups, Group B showed significantly greater improvement of pain intensity and functional disability scores than Group C and Group A ($p<0.05$) post treatment. Also, there was a statistically significant improvement in the mean value of TrA activation capacity in the three groups post treatment while there was no statistically significant difference among groups post treatment. Moreover, there was a statistically significant improvement in the mean value of lumbopelvic stability in Group B only when using double bent leg lift test and in both Group B and Group C during using double bent leg lower test post treatment but there was no statistically significant difference among groups during using both double bent leg lift and double bent leg lower tests. Conclusion: Lumbar stabilization exercises are more effective than McKenzie exercises in reducing pain, disability and lumbo pelvic stability in patients with PLS.

Key words	**1.**	**Post laminectomy syndrome.**
	2.	**Back Pain.**
	3.	**Lumbar stabilization exercises.**
	4.	**Functional Disability.**
	5.	**McKenzie exercises.**
	6.	**Pressure Biofeedback.**
Classification number	**:**	**000.000.**
Pagination	**:**	**127 p.**
Arabic Title Page	**:**	**تأثير تمرينات ماكنزى مقابل تمرينات الاتزان القطنى فى مرضى متلازمة فشل جراحة الظهر.**
Library register number	**:**	**6749-6750.**

Author	**:**	**Shams Khaled Abd-Elrahman Elbaz.**
Title	**:**	**Role of Physical Therapy Interventions in Orofacial Dysfunction after Stroke: Systematic Review.**
Dept.	**:**	**Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery.**
Supervisors	**1.**	**Abd-Elalim Abd-Elfatah Ateya.**
	2.	**Moataz Mohamed El Semary.**
Degree	**:**	**Master.**
Year	**:**	**2019.**
Abstract	**:**	

Objective: The aim of this work was to systematically review the studies which assess the effects of physical therapy interventions on orofacial dysfunction after stroke. Methods: Systematic review of all published randomized controlled studies with or without blinding. A search was made in Medline, Cochrane library, PEDro, and Google scholar. Intervention: physical therapy interventions (Neuromuscular electrical stimulation (NMES), Transcranial magnetic stimulation (TMS) and therapeutic exercises) used with acute or sub-acute stroke patients. Outcome measures: swallowing, mastication, bite force, facial muscles strength. Results: Only 12 studies met the inclusion criteria. Two meta-analyses were done, one for NMES studies (three studies) and the other for TMS studies (three studies) as they are homogenous and descriptive analysis was done to six studies as they are heterogeneous. NMES may have a significant effect on swallowing ability and dysphagia. TMS showed a significant effect on swallowing ability especially when applied at the bilateral motor cortices showed a greater effect than unilateral. The studies which underwent the descriptive analysis are showed a significant effect on swallowing ability, mastication and facial muscles weakness. Conclusion: The current level of evidence is in supporting the effectiveness of physical therapy interventions on orofacial dysfunction recovery after stroke.

Key words	**1.**	**Physical Therapy Modalities.**
	2.	**Stroke.**
	3.	**Orofacial dysfunctions.**
	4.	**Systematic Review – Stroke.**
Classification number	**:**	**000.000.**
Pagination	**:**	**84 p.**
Arabic Title Page	**:**	**دور وسائل العلاج الطبيعي فى القصور الوظيفي الوجهى الفمي بعد السكتة الدماغية (مراجعة منهجية).**
Library register number	**:**	**6477-6478.**