PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

# Physical Therapy Department for Musculoskeletal Disorder and Its Surgery

# **Master Degree**

2018

Author	:	Adel Motawea Elsayed Zedan
Title	:	Efficacy Of Cervical Stability Exercises In Treating Shoulder
		Impingement Syndrome
Dept.	:	Physical Therapy Department for musculoskeletal disorder
		and its Surgery.
Supervisors	1.	Salwa Fadl Abdul Majeed
	2.	Ahmed Hani Khater
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Degree	:	Master.
Year	:	2018.
Abstract	:	

BACKGROUND: Shoulder impingement syndrome is the second common musculoskeletal pain condition. Shoulder and cervical muscle imbalances have been implicated as contributing factors. Alignment of the cervical spine is important to the forces transmitted through the shoulder; however, the role of cervical stability exercises is not conclusively studied. OBJECTIVE: this study was to investigate the effect of cervical stability exercises (CSEs) on shoulder pain and disability index, isometric strength of shoulder abductors, internal and external rotators, and Active joint angular reproduction at 300 external/internal rotations in patients with unilateral shoulder impingement syndrome. METHODS: this study consisted of 35 patients (two groups). Group A; consisted of 18 patients, with mean age of 32 years, treated with CSEs and shoulder stability exercises (SSEs), and sleeper stretch. Group B; consisted of 17 patients, with mean age of 34 years, treated with SSEs and sleeper stretch. Each patient was assessed for pain and disability using shoulder pain and disability index (SPADI), isometric strength using hand held dynamometer, and active joint angular reproduction (AJAR) using bubble inclinometer. **RESULTS:** there was significant effect of cervical stability exercises on AJAR at 300 internal rotation and non-significant effect on AJAR at 30o external rotation, rotator cuff isometric strength, and SPADI. CONCLUSION: cervical stability exercises have a significant effect on shoulder proprioception (at 30o IR) (t=-3.23, P=0.001).

Key words	1.	Shoulder impingement syndrome.
	2.	Dyskinesia.
	3.	forward head posture
	4.	therapeutic exercises.
	5.	Cervical Stability Exercises.
	6.	Scapular.
Classification number	:	000.000.
Pagination	:	165 p.
Arabic Title Page	:	تاثير تدريبات الثبات العنقى في علاج متلازمة انحشار الكتف.
Library register number	:	5825-5826.

PREPARED	BY	NERVEEN	ABD	EL	SALAM	ABD	EL	KADER	AHMED

Author	:	Ahmed Mahmoud Gad
Title	:	The Effectiveness of Strengthening of Hip Extensors and
		Ankle Plantar Flexors In Early Post Anterior Cruciate
		Ligament Reconstruction
Dept.	:	Physical Therapy Department for musculoskeletal disorder
		and its Surgery.
Supervisors	1.	Nadia Abdelazeem Fyaz
	2.	Karima Abdelaty Hassan
	3.	Mohammad Hasan Ahmad
Degree	:	Master.
Year	:	2018.
Abstract	:	

Background: Impaired hip strength may underlie abnormal movement patterns, suggesting that diminished hip strength may increase the risk of Anterior Cruciate Ligament injury and re-injury after ACL reconstruction Aim of the study: To investigate the effect of strengthening of hip extensors and ankle plantar flexors in early post ACL reconstruction on knee effusion, knee pain, knee function, hip, knee and ankle muscles strength. Methods: The study was conducted on 30 male and female patients referred from the orthopedic surgeon with early post-operative ACL reconstruction by hamstring graft or patellar tendon graft after acute injuries, their age range from 18-40 years and were randomly assigned into two groups. Group A: consisted of fifteen patients who had received open kinetic chain strengthening exercises for hip extensors and ankle plantar flexors in addition to the traditional accelerated program. Group B: consisted of fifteen patients who had received the traditional accelerated program for 6 weeks (three sessions per week), using visual analogue scale to assess pain, effusion grading scale for to assess effusion, handheld dynamometer to assess muscle power, Western Ontario and McMaster universities score and Time Up and Go test (TUG) for functional assessment. Results: There was a significant difference between both groups for knee effusion, extensors torque between 3 and 6 weeks, WOMAC at 6 weeks, TUG at 6 weeks and plantar flexors force between 3 and 6 weeks, but there were no significant difference between both groups for, hip extensors force and (TUG at 3 weeks). There was no significant difference between both groups for knee pain, knee effusion, knee extensors torque between baseline and 3 weeks and the same for plantar flexors force and WOMAC at 3 weeks. Conclusion: adding strengthening exercises of hip extensors and plantar flexors to the traditional accelerated protocol added more beneficial outcomes in relation to function after 6 weeks.

Key words	1.	Anterior Cruciate Ligament Reconstruction ACLR
	2.	Hip extensors
	3.	plantar flexors
	4.	Accelerated program
	5.	Strengthening of Hip Extensors
	6.	Rehabilitation
Classification number	:	000.000.
Pagination	:	117 p.
Arabic Title Page	:	فعالية تقوية العضلات القابضة للفخذ والباسطة للكاحل في وقت مبكر مابعد عملية
)		إعادة بناء الرباط الصليبي الأمامي
Library register number	:	5969-5970.

Author	:	Ahmed Mahmoud Hamed Hasnin.
Title	:	The relationship between age, gender and core stability in
		cervicogenic headache.
Dept.	:	Physical Therapy Department for musculoskeletal disorder
		and its Surgery.
Supervisors	1.	Nadia Abd Elazeem Fayaz
	2.	Ebtessam Fawzy Gomaa,
	3.	Ahmed Mohamed Ahmed Mohasseb,
Degree	:	Master.
Year	:	2018.
Abstract	:	

PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

Background: Cervicogenic headache is a secondary headache. The upper three cervical segments are more involved in this type of headache. The deep cervical flexor muscles including longus colli and longus capitis are more affected. Objectives: To investigate if neck core stability, pain and functional ability in patients diagnosed with cervicogenic headache are related to a specific age or gender clusters. Methods: Sixty patients diagnosed as cervicogenic headache of both genders participated in this study. Their ages ranged from 20 to 49 years. Pressure biofeedback unit was used for assessment of neck muscles core strength. The pain was measured using the numeric rating scale. The neck functional ability was measured using the neck disability index. The correlation between gender; pain, neck functional ability and neck muscles core strength was tested using Pearson-chi square test. The correlation between age; pain, neck functional ability and neck muscles core strength was tested using two-tailed Pearson correlation test. Results: There was no statistical significant correlation between gender (P-Value .937), Age (P-Value .438) and neck muscles core strength respectively. There was no statistical significant correlation between gender (P-Value: .162), Age (P-Value: .323) and neck functional ability. There was no statistical significant correlation between gender (P-Value: .726), Age (P-Value: .749) and pain. Conclusion: There was no relationship between neck pain, functional ability and core stability in patients diagnosed with cervicogenic headache and specific age or gender cluster.

Key words	1.	cervicogenic headache.
	2.	neck core strength.
	3.	neck disability.
	4.	neck pain.
	5.	Age.
	6.	gender
Classification number	:	000.000.
Pagination	:	72 p.
Arabic Title Page	:	العلاقة بين العمر، النوع و الثبات الأساسي في الصداع عنقى المنشأ.
Library register number	:	6005-6006.

Author	:	Ahmed Mohamed Mahmoud Abd El-Aziz
Title		Effect of neuromuscular exercises on knee osteoarthritis after
		hyaluronic acid injection
Dept.	:	Physical Therapy Department for musculoskeletal disorder
		and its Surgery.
Supervisors	1.	Alaa El Din Abd El Hakim Balba
	2.	MahaMostafa Mohammed
	3.	MohieEldinmahmoudFadel
Degree	:	Master.
Year	:	2018.
Abstract	:	

PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

Purpose: to detect the effect of neuromuscular exercises on osteoarthritic knee treated by IA-HA injections in terms of proprioception accuracy, functional mobility and pain, stiffness and physical function in WOMAC Questionnaire. Methods: Thirty patients (males and females) with mild to moderate tibiofemural OA, their age ranged from 40-60 years old were randomly assigned in to 2 groups: Group I: 15 patients received IA-HA injections. Group II: 15 patients received IA-HA injections and neuromuscular exercises, three sessions per week for 4 weeks. The study was conducted at private clinic in Alexandria in the duration from October 2016 to July 2017. Methods of evaluation: IPhone-based application for joint goniometry (DrGoniometer) has been used to assess knee proprioception (joint position sense), Timed up and go test (TUG) has been used to assess functional mobility and WOMAC questionnaire used to assess pain, stiffness and physical function in function. Results: showed that bothHA (group A) and HA+ (group B) were effective in improving the knee proprioception, neuromuscular exercises functional mobility and pain stiff physical function in WOMAC Questionnaire with statistical significant difference between both groups in favor of (group B) . Conclusion:\*Injection of HA is still proving to be a successful treatment for improvement of proprioception defects. Pain. stiffness and physical function, reduced physical mobility and of KOA.\*\*The adding of neuromuscular exercises to HA injection have also better significant effect on improvement of proprioception defects, reduced physical mobility and pain, stiffness and physical function than HA alone.

Key words	1.	knee osteoarthritis.	
	2.	WOMAC.	
	3.	hyaluronic acid.	
	4.	neuromuscular exercises.	
	5.	TUG.	
Classification number	:	000.000.	
Pagination	:	110 p.	
Arabic Title Page	:	العصبية على الالتهاب العظمى المفصلي للركبه بعد حقن	تأثير التمارين العضلية
C C			حمض الهيالويورونيك.
Library register number	:	5789-5790.	

Author	:	Ahmed Shafek Abu El Makarem Shafea.
Title	:	The Effect of H-Reflex Directed Physical Therapy on Acute
		And Chronic Discogenic Lumbosacral Radiculopathy.
Dept.	:	Physical Therapy Department for musculoskeletal disorder
		and its Surgery.
Supervisors	1.	AlaaddinAbdelhakeemBalbaa.
	2.	Ghada Mohamed Rashad Koura.
	3.	Hussiun Abdel ZaherAbulkhit.
Degree	:	Master.
Year	:	2018.
Abstract	:	

PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

Background: Lumbosacral radiculopathy is a common problem in patients suffering from lumber disc prolapse with an incidence of five cases per 1000 adults in developed countries. It causes significant disability. The annual cost is estimated to be as high as 1, 18 billion dollars. Recently H-reflex directed physical therapy is used for treating discogenic lumbosacral radiculopathy. Aim of study: Determining the prognosis of the discogenic radiculopathy patient when applying H-reflex directed physical therapy in acute or chronic stages of lumber discogenic radiculopathy on pain intensity, functional disability and amplitude of loading Hoffman reflex(H-reflex). Methods: Thirty patients from both sexes with unilateral radiculopathy due to lumber disc prolapse at L4-L5 and/or L5-SI levels participated in this study .Their ages ranged from 25 to 45 years old. All patients were recruited to this study from outpatient orthopedicclinic.faculty of physical therapy. Cairo university, Egypt. They aredivided into two groups. acute and chronic discogenic lumbosacral radiculopathy groups each one consists of fifteen patients. Each patient was evaluated by electromyography (EMG) to determine the optimal spinal posture (OSP). The Patients were evaluated pre and post treatment for sciatic pain by visual analogue scale (VAS), functional disability by oswestry disability index (ODI) and for the amplitude of loading H-reflex by EMG. Both groups received physical therapy program of postioning and mobilization in optimal spinal posture (OSP), core stability exercises and home program. Treatment was lasted for 4 weeks at a frequency of three sessions per week. Results: There was significant improvement in pain level, patient function and loading H-reflex amplitude in both groups pre and post treatment. Between both groups, there was significant reduction in pain level and ODI function and significant increase (p<0.05) in loading H-reflex amplitude in favor to chronic group in compared to acute one. Conclusion: It was concluded that there was significant improvement in pain level, patient function and loading H-reflex amplitude when applying H-reflex directed treatment in acute and chronic stages of discogenic radiculopathy with better prognosis in chronic ones. Implications: H-reflex directed physical therapy can be used as an effective mechanical decompression treatment through all stages of discogenic radiculopathy.

Key words	1.	H-reflex
	2.	lumbosacral discogenic radiculopathy
	3.	Acute.
	4.	Chronic.
Classification number	:	000.000.
Pagination	:	102 p.
Arabic Title Page	:	تأثير العلاج الطبيعي الموجة بانعكاس هوفمان علي الاعتلال الغضروفي الحاد والمزمن لجذور الاعصاب القطنية والعجزية.
Library register number	:	6037-6038.

PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

Author	••	Alaa Ibrahim Mohammed Mohammed Elkady
Title	:	Effect of core stability training on knee proprioception after anterior cruciate ligament reconstruction
Dept.	:	Physical Therapy Department for musculoskeletal disorder and its Surgery.
Supervisors	1.	Alaa El Din Abd El HakimBalba
_	2.	Maha Mostafa Mohammed
	3.	Ahmed Hassan Waly
Degree	:	Master.
Year	:	2018.
Abstract	:	

Methods: Thirty patients of both gender after ACLR. Their age ranged from 20 to 30 years. They were randomly assigned into 2 groups groupA included 15 patients received ACLR rehabilitation protocol and group B included 15 patients received CST in conjugation with same protocol as group A. Three sessions per week for 8 weeks. The study was conducted at a private clinic in Alexandria in the period from August 2016 till August 2017. Methods of evaluation: The digital inclinometer has been used to assess knee proprioception (joint position sense (JPS)) and of Knee Injury and Osteoarthritis Outcome Score (KOOS) questionnaire used to assess function.Results: showed that bothACLR rehabilitation protocol (group A) and CST in conjugation with same protocol as group A (group B) were effective in improving the knee proprioception and function with no statistical significant difference between both groups. Conclusion:Both ACLR rehabilitation protocol with or without CST are effective in improving knee proprioception and function after ACLR while the adding of CST caused some clinical improvement which was not a statistically significant one.

Key words	1.	Core stability.
	2.	Rehabilitation.
	3.	anterior cruciate ligament reconstruction
	4.	knee proprioception.
Classification number	:	000.000.
Pagination	:	124 p.
Arabic Title Page	:	تاثير تدريب الثبات الجذعى على الاستقبال الحسى العميق للركبه بعد اعاده بناء
		الرباط الصليبي الامامي.
Library register number	:	5767-5768.

Author	:	Al-Hassan Mohamed Mortada Al-Maraghy
Title	:	Effect of early neuromuscular training on knee proprioception
		after anterior cruciate ligament reconstruction
Dept.	:	Physical Therapy Department for musculoskeletal disorder
		and its Surgery.
Supervisors	1.	Alaa El Din Abd El Hakim Balba
	2.	Maha Moustafa Mohammed
	3.	Ahmed Hassan Waly
Degree	:	Master.
Year	:	2018.
Abstract	:	

PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

Purpose: This study was conducted to detect the effect of early neuromuscular training on knee proprioception after ACLR. Methods: Thirty patients of both gender after ACLR with age ranged from 20-30 years were included in the study. They were randomly assigned into 2 groups A included 15 patients who received ACLR rehabilitation protocol and group B included 15 patients who received same protocol as group A in addition to neuromuscular training for three sessions per week. The study was conducted at a private clinic in Alexandria in the duration from November 2016 to August 2017. Methods of Evaluation: The digital inclinometer used to assess knee proprioception (JPS) after ACLR n. Results: showed that both ACLR rehabilitation protocol (Group A) and ACLR rehabilitation protocol in addition to early neuromuscular training from week 2 (Group B) were effective in improvement of knee proprioception accuracy. Conclusion: Both ACL rehabilitation exercises with or without neuromuscular training are effective in improving knee propioception after ACLR .while the adding of the neuromuscular training caused some clinical improvement not statistically significant one.

Key words	1.	Anterior cruciate ligament reconstruction.
	2.	Rehabilitation.
	3.	neuromuscular training.
	4.	knee proprioception.
Classification number	:	000.000.
Pagination	:	82 p.
Arabic Title Page	:	ىتَثير التدريبات العضلية العصبية المبكرة على الاستقبالال حسى العميق للركبة بعداعادة بناء الرباط الصليبي الامامي.
Library register number	:	5821-5822.

Author	:	Aya Ahmed Elnour Noaman Nada
Title	:	Neuromuscular training with rigid tape versus strength training in the treatment of medial compartment knee osteoarthritis
Dept.	:	Physical Therapy Department for musculoskeletal disorder and its Surgery.
Supervisors	1.	Alaa El Din Abd El Hakim Balbaa
	2.	Maha Mostafa Mohammed
	3.	Ahmed Hassan Wa
Degree	:	Master.
Year	:	2018.
Abstract	:	

PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

Purpose: This study was conducted to detect the effect of NEMEX-TJR with RT versus strength training on proprioception accuracy and WOMAC index score in medial compartment knee OA. Methods: This study was conducted on thirty patients both genders with mild to moderate medial compartment knee OA. Their age ranged from 45-55 years. All patients were referred by the orthopedic surgeons who are responsible for diagnosis based on clinical and radiological examination. They were randomly assigned into two groups Group (A) received strength training exercises and Group (B) received NEMEX-TJR with RT for three sessions per week for one month. The digital inclinometer has been used to assess knee proprioception (joint position sense) and WOMAC scale used to assess function. Results: showed that both strength training (group A) and NEMEX-TJR with RT (group B) were effective in improving proprioception and WOMAC scale values, but strength training (Group A) was slightly less effective than NEMEX-TJR with RT in improving WOMAC scale values without significant difference between both groups in proprioception accuracy. Conclusion: It can be concluded that both strength training and NEMEX-TJR with RT are effective in the treatment of medial compartment knee OA in terms of proprioception accuracy and WOMAC scale values, with significant improvement of WOMAC scores in the favor of NEMEX-TJR with RT group.

Key words	1.	medial compartment knee osteoarthritis.			
	2.	Exercises.			
	3.	strength training .			
	4.	Neuromuscular training.			
	5.	rigid tape.			
	6.	WOMAC questionnaire.			
	7.	Proprioception accuracy			
Classification number	:	000.000.			
Pagination	:	104 p.			
Arabic Title Page		التدريب العصبى العضلى مع استخدام الشريط الصلب مقارنة بتدريب القوة في علاج			
		التهاب العظمى المفصلي للجزء الداخلي للركبة.			
Library register number	:	5797-5798.			

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Author	:	Gamila Saleh Tammam
Title	:	Relationship between static lower limb alignment and
		patenoremoral pain syndrome
Dept.	:	Physical Therapy Department for musculoskeletal disorder and its Surgery.
Supervisors	1.	Nadia Abdelazeem Fyaz
_	2.	Karima Abdelaty Hassan
	3.	Ahmed Hazem Abdelazeem
Degree	:	Master.
Year	:	2018.
Abstract	:	

Background: Patellofemoral pain syndrome (PFPS) is one of the most common orthopedic knee conditions encountered in athletes and general population and is more prevalent in females than in males. Lower limb malalignment is an important etiological factor for PFPS. Objectives: The purpose of this study was to determine if there was any relationship between static lower extremity alignment and PFPS. Methods: Forty nine patients (38 females and 11males) had participated in this study, their age ranged from eighteen to thirty five years. Each patient was assessed for static lower limb alignment measures (pelvic tilting angle, tibial torsion using PALM (PALpation Meter); femoral neck anteversion using inclinometer; Q-angle, tibiofemoral angle using plastic standard goniometer, navicular drop using ruler) and patellofemoral pain by kujala scale. Results: The results showed no relationship between lower limb alignment measures and PFPS. Conclusion: Lower extremity malalignment does not affect function in patients with PFPS.

Key words	1.	Patellofemoral pain syndrome.
	2.	static lower extremity alignment
Classification number	:	000.000.
Pagination	:	106 p.
Arabic Title Page	:	العلاقة بين المحاذاة الاستاتيكية للطرف السفلي ومتلازمة ألم الرضفة وأسفل عظمة
		الفخذ.
Library register number	:	5751-5752.

Author		Gina AtefNissem Nicola
Title	:	Effect of Upper TrapeziusIschemic Compression on
		Masticatory Myofascial Pain Syndrome
Dept.		Physical Therapy Department for musculoskeletal disorder
		and its Surgery.
Supervisors	1.	Nadia AbdElazeemFayaz
	2.	Salah Abd El-Fatah Mohamed
	3.	Maha Mostafa Mohammed
Degree	:	Master.
Year	:	2018.
Abstract	:	

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Masticatory myofascial pain (MMP) is the primary reason for chronic orofacial pain. It origins in the masticatory muscles and the pain maybe felt in the face, jaws and can radiate to the ear, head, and neck regions. Purpose: the purpose of this study was to investigate the effect of ischemic compression (IC) on muscles of mastication and upper trapezuis muscle myofascail trigger points (MTrPs) on MMP syndrome. Methods: thirty two MMP patients of both sexes, with age ranged from 20 to 35 years, were randomly divided into two groups. Both groups have been evaluated for temporomandibular joint (TMJ) pain intensity by visual analogue scale (VAS), maximal mouth opening (MMO) by digital verniercaliper, and TMJ function by fonseca's questionnaire. The control group (groupI) received IC on masticatory muscles (masseter, lateral pterygoid) followed by an exercise program. The experimental group (groupII) received the same treatment program and IC on upper trapezius muscle active MTrPs, all patients received 2 sessions per week for 2 weeks. Results: results showed a significant improvement in all measurements in both groups. Without significant difference between both groups except for the TMJ pain intensity, in favor of the experimental group. Conclusion: Ischemic compression and exercises are effective in improvingTMJ pain intensity, MMO, TMJ function significantly in patients suffering from MMP without a significant effect of adding upper trapezuis active MTrPs except for the TMJ pain intensity.

		l l	
Key	words	1.	Upper Trapezuis
		2.	Myofascial trigger points
		3.	Ischemic Compression
		4.	Temporomandibular joint.
		5.	Masticatory muscles.
Class	sification numbe	er :	000.000.
Pagir	nation	:	74 p.
Arab	oic Title Page	:	تأثير الانضغاط الاقفاري لأعلي العضلة شبة المنحرفة علي متلازمة الم النسيج
			العضلي الضام لعضلات المضغ
Libra	ary register nun	nber :	6141-6142

Author	••	Heba Allah Elsayed Mohamed
Title	:	The effect of kinesiotape on Unilateral sciatica
Dept.	:	Physical Therapy Department for musculoskeletal disorder
_		and its Surgery.
Supervisors	1.	Nadia Abdelazim Fyaz
_	2.	Ebtessam Fawzy Gomaa
	3.	Eslam Abd El-shafy Tabl
Degree	•	Master.
Year	:	2018.
Abstract	:	

PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

Purpose: This study was conducted to investigate the effect of kinesio tape (KT) on radicular pain, sciatic nerve mobility, and functional disability in patients with unilateral sciatica. Methods: The study was conducted on thirty patients (11 females, 19 males) with unilateral sciatica caused by lumbar disc herniation (LDH). Their age ranged from 30-40 years. The patients were referred by orthopedic surgeon who was responsible for diagnosis based on clinical and radiological examination. All patients were randomly allocated into 2 groups: group (A) included 15 patients received Kinesio tape (KT) plus neural mobilization, group (B) included 15 patients received neural mobilization only, for 2 sessions per week for 3 weeks. The study was conducted between July 2017 to February 2018. Methods of evaluation: Numerical Pain Rating Scale (NPRS) was used to assess radicular pain; Universal goniometer was used to assess sciatic nerve mobility via passive straight leg raise testing (SLR) testing; Oswestry Disability Index questionnaire (ODI) was used to assess Functional status. Results showed that both groups improved in the radicular pain, sciatic nerve mobility, and functional disability, but KT group showed a significant improvement in radicular pain (P= 0.009) and functional disability (p=0.0001) rather than the other group. However there was no statistical significant difference in sciatic nerve mobility between groups (p=0.05). Conclusion: It can be concluded that neural mobilization was effective treatment for unilateral sciatica caused by lumbar disc herniation, and adding KT gained better results than isolated neural mobilization.

Key words	1.	Lumbar Disc Herniation (LDH),
	2.	Numerical Pain Rating Scale (NPRS) and
	3.	Kinesio Tape (KT).
	4.	Neural mobilization.
	5.	Unilateral sciatica
	6.	Oswestry Disability Index questionnaire (ODI).
	7.	Straight leg raise.
	8.	Radicular pain.
Classification number	:	000.000.
Pagination	:	91 p.
Arabic Title Page	:	تاثير شريط الكينسيو على عرق النسا الاحادي الجانب.
Library register number	:	5917-5918.

PREPARED :	BY	NERVEEN	ABD	EL	SALAM	ABD	EL	KADER	AHMED

Author	:	Hossam Eldin Ahmed Ibrahim Abdelazzem.
Title	:	Prevalence of Work Related Low Back Pain Among Physical
		Therapists With Different Foot Postures At Fayoum-Egypt
		(Survey Study).
Dept.	:	Physical Therapy Department for musculoskeletal disorder
		and its Surgery.
Supervisors	1.	Salwa Fadl Abd Elmageed
	2.	Ebtessam Fawzy Gomaa
	3.	Alaa Elmarakby
Degree	:	Master.
Year	:	2018.
Abstract	:	

**Background:** low back pain is the commonest form of musculoskeletal disorder among physical therapists. repetitive tasks, high force manual techniques, bending/twisting postures, patient transfer assisting with mat activities, lifting heavy equipment, prolonged constrained posture and foot abnormalties identified as risk factors of low back pain which is common in the field of physical therapy. **Purposes:** To identify prevalence of work related LBP among physical therapists with different foot postures and find the relation of WRLBP to general characteristics and foot postures who working in governmental hospitals in fayoum-Egypt. **Methods:** The LBP measured by Nordic questionnaires (NQ) and foot postures measured by foot posture index (FPI). **Results:** 112 of the 147 P.Ts (76.19%) have completed the questionnaire. WRLBP (n = 68), Non WRLBP (n = 25), No LBP (n = 19). The lifetime prevalence of WRLBP was 60.71%, the twelve-month prevalence of WRLBP was 52.67%, the point prevalence of WRLBP was 47.32%. There was no significant association of WRLBP with gender ( $\chi^2$  =2.01, p =0.15); Also with age ( $\chi^2$  =0.42, p =0.81); With work setting ( $\chi^2$  =3.31, p =0.34); With work specialty ( $\chi^2$  =9.33, p =0.09); With post graduate education ( $\chi^2$  =6.33, p =0.09) and Also with foot posture ( $\chi^2$  =10.45, p =0.23). But there was significant association between WRLBP and BMI ( $\chi^2$  =3.93, p =0.04). **Conclusion:** Work related LBP is common among physical therapists who working in governmental hospitals in fayoum-Egypt. While it is not related to any of the following: age, gender, work setting, work specialty, post graduate education or foot posture. But it is closely related to BMI.

Key words	1.	Prevalence.
	2.	Physical therapists.
	3.	WRLBP.
	4.	Foot Postures.
	5.	Fayoum-Egypt .
	6.	Survey Study
Classification number	:	000.000.
Pagination	:	81 p.
Arabic Title Page	:	انتشار الم اسفل الظهر المتعلق بالعمل بين اخصائى العلاج الطبيعي في اوضاع
		القدم المختلفة الفيوم _ مصر.
Library register number	:	6007-6008.

Author		Khaled Alaa Eldin Fetouh Shalash
Title	••	Effect of lateral wedge with subtalar strapping versus mulligan
		taping in treating knee osteoarthritis
Dept.	:	Physical Therapy Department for musculoskeletal disorder
		and its Surgery.
Supervisors	1.	Salwa Fadl
	2.	Hatem Mohammed Elazizy
	3.	Hamed Mohammed Elghozamy
Degree	:	Master.
Year	:	2018.
Abstract	:	

PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

Background: Osteoarthritis (OA) is known as a degenerative joint disease, characterized by joint pain and stiffness. Knee OA is considered an active disease process with joint destruction driven by both biomechanical and pro inflammatory factors. In vitro and in vivo animal models elucidate specific mechanical and biological factors that affect cartilage degradation and tissue changes associated with cartilage growth and remodeling. Purpose of the study: to determine which is more effective in treatment of knee osteoarthritis; lateral wedge with subtalar strapping combined with conventional exercise program versus mulligan taping combined with conventional exercise. Methodology: Forty five patients participated in this study, their age ranged from 45 to 60 years and their body mass index was ranged from 30 to 33 kg/m2. They were divided randomly into three groups equal in numbers: group (A) lateral wedge with subtalar strapping combined with conventional exercise program, group (B) mulligan taping combined with conventional exercise and group (c) conventional exercise only. All participants in three groups (A, B and C) were assessed pre- and post-treatment through measuring of pain using visual analogue scale, measuring tenderness by pressure algometry and measuring function through step test and total WOMAC score. Results: revealed that pre-treatment, there was a non-statistical significant difference between three groups (A,B&C) in mean value of pain, tenderness step test and total WOMAC score symptoms where the p-value was (>0.05). Comparison between pre and post treatment showed a statistically highly significant improvement in pain, tenderness and function in group (B&C) than in group (A). Conclusion: mulligan taping combined with exercise was effective than lateral wedge with subtalar strapping in decreasing pain and improving function in knee osteoarthritis.

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Key words	1.	knee osteoarthritis.
	2.	Mulligan taping.
	3.	lateral wedge with subtalar strapping.
Classification number	:	000.000.
Pagination	:	146 p.
Arabic Title Page	:	تأثير الإسفين الجانبي مع تحزيم تحت الكاحل مقارنة بالشريط اللاصق لموليجان في
		علاج خشونة الركبة.
Library register number	•	5827-5828.

Author	:	Mai Hassan Ahmed Desouki
Title	:	Effect of Hip Lateral Rotators Strengthening on Mechanical
		Low Back Pain
Dept.	:	Physical Therapy Department for musculoskeletal disorder
		and its Surgery.
Supervisors	1.	Alaa El Din Abd El-Hakim Balbaa
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Degree	:	Master.
Year	:	2018.
Abstract	:	

PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

Background: Mechanical low back pain (MLBP) is a major cause of illness and disability, especially in people of working age, hip rotators muscles is identified as a potential source and contributor to low back dysfunction, and impairments in hip mobility. Purpose: To investigate the effect of hip lateral rotators strength on mechanical low back pain. Methods: Thirty patients with mechanical low back pain (MLBP) were assigned randomly into two equal matched groups (group A&B) received same traditional physical therapy program (stretching exercises of back muscles, hamstring and piriformis muscles, strengthening exercises for abdominal muscles) (one session every other day) each session last for approximately one hour in addition to this traditional physical therapy program, Group A received hip lateral rotators strengthening exercises in the same 12 sessions. The variable of hip lateral rotators strength was measured using isokinetic Biodex system. The variable of pain measured using visual analogue scale. The variable of function measured using Oswstery back disability questionnaire. Results: This study revealed that the mechanical back pain is significantly improved in both groups when compared pre and post treatment. There is a significant difference between groups comparison post treatment in favor of group (A). Conclusion: It was concluded that hip lateral rotators strengthening exercise add more value to the traditional physical therapy program in treatment of mechanical low back pain.

Key words	1.	Mechanical low back pain
	2.	Hip lateral rotators strength
Classification number	:	000.000.
Pagination	:	103 p.
Arabic Title Page	:	تأثير تقوية عضلات دوران الفخذ للخارج عليألام أسفل الظهر الميكانيكية.
Library register number	:	5951-5952.

Author	:	Mai Mohamed AbdelkaderAbdallah
Title	:	Effect of low load resistance blood flow restriction training on
		knee osteoarthritis
Dept.	:	Physical Therapy Department for musculoskeletal disorder
		and its Surgery.
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Degree	:	Master.
Year	:	2018.
Abstract	:	

PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

Background: The initiation, progression, and severity of knee osteoarthritis (OA) have been associated with decreased muscular strength and alterations in joint biomechanics. Resistance exercise has been shown to be an effective intervention for decreasing pain, restoring muscle strength and joint mechanics while improving physical function in patients with knee OA. High-resistance exercise has been demonstrated to be more beneficial than low-resistance exercise. However, patients with knee OA may have reduced tolerance of high resistance training programs. Purpose: the current study was conducted to assess whether concurrent application of blood flow restriction (BFR) to low load resistance (LLR) training is an efficient and tolerable mean of improving quadriceps muscle strength, functional mobility and knee joint function in WOMAC questionnaire in patients with knee OA.Methods: Forty female patients with mild to moderate unilateral tibiofemoral OA. Their age ranged from 45-60 years old. All patients were referred by orthopedic surgeons who were responsible for diagnosis of OA based on clinical and radiological examination. All patients were randomly assigned into one of two groups: group (I)This group included 20 patients underwent traditional high load resistance (HLR) training exercises (60% 1RM), group (II) This group included 20 patients received LLR training exercises (30% 1RM) combined with BFR, three sessions per week for one month. The study was conducted from September 2017 to February 2018 in a private orthopedic and physical therapy center. Methods of evaluation: Hand Held Dynamometer was used to assess quadriceps muscle strength, Timed up and go test was used to assess functional mobility and WOMAC questionnaire was used to assess knee joint function.Results: showed that both group I and group II were effective in improving quadriceps muscle strength, functional mobility and knee joint function in WOMAC Questionnaire with no statistical significant difference between both groups in all measured variables. Conclusion:Both traditional HLR training and LLR-BFR training are effective treatment options for improving quadriceps muscle strength, functional mobility and knee joint function in patients with knee OA.

Key words	1.	knee osteoarthritis
	2.	blood flow restriction
	3.	strengthening exercises
	4.	WOMAC questionnaire
	5.	Timed up and go test
	6.	Hand held dynamometer
Classification number	:	000.000.
Pagination	:	134 p.
Arabic Title Page	:	تأثير التمارين ذات الحمل المنخفض مع تقييد مجرى الدم علي الالتهاب العظمى
		المفصلى للركبة.
Library register number	:	5929-5930.

Author	:	Mohamed Ahmed Said Ahmed
Title	:	Effect Of Dexamethasone Phonophoresis In The Treatment
		OF Knee Osteoarthritis
Dept.	:	Physical Therapy Department for musculoskeletal disorder
		and its Surgery.
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Degree	:	Master.
Year	:	2018.
Abstract	:	

PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

Background: Osteoarthritis of the knee is reported to be a major health problem worldwide that affects the quality of life. Dexamethasone decreases joint inflammation and joint tissue degradation. There is advantage of drug delivery through the skin to avoid adverse effect that may accompanied with other methods either orally or through intra-articular injection Purpose: This study was conducted to determine the effect of dexamethasone phonophoresis on knee osteoarthritis. Methods: Forty four female patients with bilateral knee osteoarthritis participated in this study. The patients were randomly assigned into two equal groups. Group A (study group) received dexamethasone phonophoresis over medial side of knee joint, transcutaneous electrical nerve stimulation (TENS) and quadriceps strengthening exercise. Group B (control group) received ultrasound therapy, TENS and the same exercise program. The treatment sessions were conducted three times per week every other day for four successive weeks. All subjects assessed for pain using visual analogue scale (VAS) and for functional mobility using Arabic translated form of Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) and timed up and go test (TUG) before and after treatment. Results: VAS, total WOMAC, WOMAC subscales. TUG parameters improved with both modalities. Post treatment results revealed that there was a significantly superior improvement in pain intensity and functional mobility in the phonophoresis group. Conclusion: Dexamethasone phonophoresis and ultrasound therapy are significantly effective in treating knee osteoarthritis with superiority of dexamethasone phonophoresis.

Key words	1.	Knee Osteoarthritis
	2.	Dexamethasone.
	3.	Phonophoresis.
Classification number	:	000.000.
Pagination	:	126 p.
Arabic Title Page	:	تأثير إدخال الديكساميثازون بالموجات فوق الصوبتية في علاج خشونة الركبة.
Library register number		5809-5810.

Author	••	Mohamed Ahmed Sayed Farghel.
Title	••	The Coorelation Between Hamstring Tightness And Plantar
		Fasciitis.
Dept.	:	Physical Therapy Department for musculoskeletal disorder
		and its Surgery.
Supervisors	1.	Salwa Fadl Abdelmegid
_	2.	Hatem Mohamed
	3.	Hamed Mohamed Elkhozamy
Degree	:	Master.
Year	:	2018.
Abstract	:	

PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

BACKGROUND: A significant number of individuals suffer from pain in the heel and many of them go on to have chronic symptoms and progressed to disability, and it may affect sedentary and active adults of all ages. Active knee extension test (AKE) is commonly used to assess flexibility and length of the hamstring muscles that's may be related to plantar fasciitis (PF). **OBJECTIVE:** To assess the relationship between hamstring tightness and PF. METHODS: Thirty patients who were complaining of heel pain, their age ranged from 30-50 years. All participants were asked to assess plantar fascia thickness by ultrasonoghraphy and to assess hamstring length by range of active knee extension test; aiming to detect the correlation between hamstring tightness and plantar fasciitis. The mean age was 39.72± 5.58 years (range: 31-48 years), 83.3% were female, 66.6% were affected bilaterally and the mean BMI was 28.94±2.94 Kg/m<sup>2</sup>. RESULTS: Pearson correlation coefficient (r) between mean value of thickness of plantar fascia measured by ultrasonography and active knee extension angle was -0.613. The results indicated that there was a strong negative linear correlation between the thickness of PF and range of active knee extension test angle (p=0.0001). This means that any increase in the thickness of PF, will be associated with decrease in active knee extension angle. CONCLUSIONS: there is a strong correlation between PF and hamstring tightness

Key words	1.	Plantar fasciitis.
	2.	hamstring tightness.
	3.	active knee extension test
	4.	plantar fascia
Classification number	:	000.000.
Pagination	:	89 p.
Arabic Title Page	:	العلاقه بين الشد العضلي للعضلة الخلفية للفخذ والتهاب اللفافة الاخمصية.
Library register number	:	6133-6134.

Author	:	Mohamed El shafey.
Title	:	Therapeutic Effect of Kinesio Tape On Lateral Ankle
		Instability.
Dept.	:	Physical Therapy Department for musculoskeletal disorder
		and its Surgery.
Supervisors	1.	Nadia Fyaz
	2.	Molham Mahmood mohammad
	3.	Mohamed farouk
Degree	:	Master.
Year	:	2018.
Abstract	:	

PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

Objective: To determine the effect of kinesio taping on balance and functional performance in patients with lateral ankle instability. Material and Methods: The study included 30 subjects with age was ranged from 18 to 35 years.; they were divided into two groups: (experimental group A): This group Consisted of 15 patients with lateral ankle sprain treated by selected balance training program in form of three sessions per week for four weeks, in addition to taping the ankle joint with adhesive elastic kinesiotape.(control group B): This group Consisted of 15 patients with lateral ankle sprain treated by selected balance training program in form of three sessions per week for four weeks, the same balance training as group (A) but without the use of kiesio tape to the ankle joint .The investigations were conducted at balance unit, in sport medicine specialized center in Nasr city. Measurements were conducted before starting the treatment as a first record and at the end of 4 weeks of treatment as second record. Results: when comparing the two groups (A and B) before treatment, the mean  $\pm$  SD values were 2.79  $\pm$  1.05 and  $2.46 \pm 0.92$  respectively which indicated no significant difference (p= 0.365), while comparing the two groups after four weeks of treatment, the mean  $\pm$  SD values were 1.33  $\pm$  0.36 and 1.9  $\pm$ 0.69 respectively which indicated a significant improvement (p = 0.011) in favor of group (A) (MD= 0.57) and % of improvement was 21.42 %. Conclusion: it was concluded that kinesiotaping had improvement on balance and functional performance in patient with lateral ankle sprain.

Key words	1.	Lateral ankle sprain.
	2.	Balance training
	3.	Therapeutic Effect of Kinesio Tape.
	4.	Kinesiotape
Classification number	:	000.000.
Pagination		95 p.
Arabic Title Page	:	المتأثير العلاجي للاصقه كينيسيو على مرضى عدم الثبات للرباط الخارجي لمفصل
		الكاحل
Library register number	:	6195-6196.

Author	:	Mostafa Ibrahim Abd-Elhameed Elshafey.
Title	:	Influence of Medial Wedge Support on Patellofemoral Pain
		Syndrome.
Dept.	:	Physical Therapy Department for musculoskeletal disorder
		and its Surgery.
Supervisors	1.	Nadia Abd El-Azim Fayaz.
	2.	Ebtessam Fawzy Gomaa.
	3.	Ahmed Hosny Hafez.
Degree	:	Master.
Year	:	2018.
Abstract	:	

PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

Background: Patellofemoral pain syndrome (PFPS) is a common complaint in athletes and populations which described as a dull and aching pain in anterior or retropatellar area in absence of other pathology. It is commonly believed that main problems of PFPS are pain and impaired knee function. Purpose: To compare between effects of medial wedge support combined with hip abductors and lateral rotators strengthening exercises versus hip abductors and lateral rotators strengthening exercises alone. Design: The study was conducted on thirty patients (10 females and 20 males). The patients were assigned randomly into two equal groups. The experimental group (A): 15 patients with a mean age of  $(24.0 \pm 5.16 \text{ years})$  and mean BMI  $(24.67 \pm 2.56 \text{ kg/m}^2)$  were treated with hip abductors and lateral rotators strengthening exercises in addition to wearing medial wedge support, whereas the control group (B): 15 patients with mean of age (22.0 ±1.60 years) and mean BMI (23.07 ± 2.88 kg/m<sup>2</sup>) were treated with only hip abductors and lateral rotators strengthening exercises. Results: Findings revealed that using medial wedge support together with the hip abductors and lateral rotators strengthening exercises after 6 weeks have proved to be significant in improving pain intensity (P = 0.0004) and functional level (P=0.0018) than using the hip abductors and lateral rotators strengthening exercises alone but show no significant difference in the hip abductors (P=0.80) and lateral rotators (P=0.98) muscles strength. Conclusion: The current study concluded that using medial wedge support together with the hip abductors and lateral rotators strengthening exercises have proved to be more beneficial in improving pain intensity and functional level and have showed no significant difference in the hip abductors and lateral rotators strength compared to the hip abductors and lateral rotators strengthening exercises alone in PFPS patients..

Key words	1.	Medial wedge support.
	2.	Athletes.
	3.	patellofemoral pain syndrome,.
Classification number	:	000.000.
Pagination	:	79 p.
Arabic Title Page	••	تأثير الدعامة الوتدية الإنسية على متلازمة أسفل الفخذ و الرضفة.
Library register number	:	6053-6054.

Author	:	Omar Mohamed Ali Elabd
Title	:	Time Based Versus Goal Based Rehabilitation Protocol After
		Anterior Cruciate Ligament Reconstruction
Dept.	:	Physical Therapy Department for musculoskeletal disorder
		and its Surgery.
Supervisors	1.	Salwa Fadl Abd Elmajeed
	2.	Nasr Awad Abd Ekader
	3.	Hany Elsayed Abd Elgwad
Degree	:	Master.
Year	:	2018.
Abstract	:	

PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

Background: In football one of the most common injuries that may occur is the rupture of the anterior cruciate ligament (ACL). Its incidence is, in football, equal to 0.340events per 1.000 hours of exposure time. The goal of a rehabilitation program after an ACL reconstruction is to regain mobility and muscle function and ultimately to return to sports participation. Purpose: toInvestigate the effects of time-based rehabilitation program versus goal based rehabilitation program on knee function, range of motion, effusion and pain. Methods: Forty eight adult male participated in this study, their age ranged from 18 to 40 years and their body mass index (BMI) was ranged from 18 to 25 kg/m<sup>2</sup>. They were randomly assigned into three equal groups. Group (A) received conventional physical therapy program, group (B) received time based rehabilitation protocol and group (C) received goal based rehabilitation protocol. Treatment sessions were conducted 5 times per week for 22 weeks for all groups. All patients assessed pre and post treatment for pain using visual analogue scale (VAS), effusion using effusion grading scale, ROM using UG and knee functional performance using LSI of hop test battery, KOOS and KCP for single leg jumping-land task. Results: There was a significant improvement in knee pain, ROM, effusion and function in groups A, B and C, but, there was a significant superior improvement in knee functional performance in group B and C than in group A in favor of group C. Conclusion: Time based and Goal based rehabilitation protocols were effective and Goal based protocol was more effective than Time based protocol. But, Both rehabilitation protocols should be extended for further period of time till patients meet the criteria of returning to pre-injury level of sport.

Key words	1.	Anterior Cruciate Ligament (ACL) rehabilitation
	2.	Time based rehabilitation
	3.	Goal based rehabilitation
Classification number	:	000.000.
Pagination	:	127 p.
Arabic Title Page	:	برنامج التأهيل على أساس الوقت مقابل برنامج التأهيل على أساس الهدف بعد إعادة
		بناء الرباط الصليبي الأمامي.
Library register number	:	5959-5960.