

**ELECTRONIC GUIDE TO THESES APPROVED BY PHYSICAL
THERAPY DEPARTMENT FOR MUSCULOSKELETAL DISORDER
AND ITS SURGERY**

PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

**Physical Therapy Department for Musculoskeletal
Disorder and Its Surgery**

Doctoral Degree 2018

Author	:	Ahmed Ramadan Zaki Baghdadi
Title	:	Effect of Strain Counterstrain Versus High Velocity Low Amplitude Thrust Manipulation On Clinical Outcomes In Acute Mechanical Low Back Pain
Dept.	:	Physical Therapy Department for musculoskeletal disorder and its Surgery.
Supervisors	1.	Alaa Eldin Abdel-Hakim Balbaa
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Degree	:	Doctoral.
Year	:	2018.
Abstract	:	

Background: Although greater success of high velocity low amplitude thrust (HVLAT) manipulation technique, there are several contraindications, before therapist decides to utilize a manipulative technique he or she must be sure that no contraindications are present and the technique need more experience to learn . Thus we found a need to investigate if there is an effect of strain counterstrain (SCS) techniques as an easy, non-harmful uncostly technique other than HVLAT manipulation on pain, segmental mobility and functional disabilities in patients with acute mechanical low back pain (AMLBP). **Purpose:** To assess the effectiveness of SCS by comparing it with a gold standard technique such as HVLAT in treating the patients with AMLBP with mobility deficits. **Subjects:** The study were conducted on 126 patients who matched the inclusion and exclusion criteria signed consent form and we have the approval from ethical committee, patients randomly assigned into Three groups; Group (A) which composed of 42 patients (21 males and 21 females) treated with HVLAT techniques, group (B) which composed of 42 patients (21 males and 21 females) treated with SCS techniques and group (C) was the control group which composed of 42 patients (21 males and 21 females) has only advices to be active. **Methods:** HVLAT group treated with two techniques as prescribed in methodology section one session per week for two weeks. SCS group treated with two techniques as prescribed in methodology section two sessions per week for two weeks. The two experimental groups were assessed before treatment, after treatment and after six weeks follow-up. The control group was assessed three times as the same time interval for PPT at level of L5 (4 cm left and right), range of motion (ROM) of lumbar flexion by using inclinometer and oswestry disability index (ODI) scores. **Results:** The results of this study demonstrated that Regarding to the results of the study, it revealed that after treatment all patients had improvement in pain reduction, ROM improvement and decreasing disability. After six weeks Follow SCS group and Control group had improvement in pain reduction, ROM improvement and decreasing disability, regarding to HVLAT group after 6 weeks follow up Patients had improvement in pain reduction and decreasing disability. While, there was significant difference between (group A versus C), and (group B versus C) in Pain reduction, ROM, and functional disability and this significant increase in favor of group (A) and group (B) than group (C) after treatment and after six weeks follow up. There was no significant difference between (group A versus B) in Pain reduction, ROM, and functional disability except in PPT after treatment. **Conclusion:** It's concluded that using of SCS techniques in treating patients with AMLBP with mobility deficits is an effective approach as well as HVLAT technique.

Key words	1.	Manipulation
	2.	Strain counterstrain, acute
	3.	mechanical low back pain
	4.	high velocity low amplitude thrust
Classification number	:	000.000.
Pagination	:	121 p.
Arabic Title Page	:	تأثير الشد و الشد المضاد ضد التحريك المندفع عالي السرعة منخفض المقدار علي النتائج الإكلينيكية في ألم أسفل الظهر الميكانيكي الحاد.
Library register number	:	5967-5968.

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PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Amr Mohammed Mohie Al-Dein Saffan.
Title	:	Low level laser Therapy versus phonophoresis in Treatment of Carpal Tunnel Syndrome
Dept.	:	Physical Therapy Department for musculoskeletal disorder and its Surgery.
Supervisors	1.	Lilian Albert ZakiShehata
	2.	MolhamMahmood Mohammed
Degree	:	Doctoral.
Year	:	2018.
Abstract	:	
<p>Background: Carpal tunnel syndrome (CTS) is the most frequently encountered peripheral neuropathy; it is caused by the compression of the median nerve at the wrist in the carpal canal. Clinical symptoms and signs include numbness and tingling of the lateral three fingers and radial side of the ring finger, nocturnal awakening due to pain, and impaired fine motor control because of weakness of the hand. Objective: to compare between the effect of low level laser therapy (LLLT) and phonophoresis on median nerve sensory latency , median nerve motor latency, median nerve sensory conduction velocity,pain intensity, function status, hand grip strength, and key pinch strength in patients with mild or moderate CTS.Methods: Forty patients had participated in this study; with age ranged from 25-50 years, they were assigned in two experimental groups. Group A: consisted of 20 patients (8 males / 12 females) with mean age of 39.00 (± 7.21) received LLLT with flexor tendon-gliding exercise and median nerve mobilization exerciseGroup B: consisted of 20 patients (5 males / 15 females) with mean age of 39.45 (± 6.39) received phonophoresiswith flexor tendon-gliding exercise and median nerve mobilization exercise. Results: revealed that both groups showed significant improvement in their median nerve sensory latency, median nerve motor latency, median nerve sensory conduction velocity, pain intensity, symptoms severity, function status, hand grip strength, and key pinch strength while,there was significant difference for phonophoresis group in post treatment in pain level, symptoms severity, function status, and key pinch strength values between the two groups.Conclusion: phonophoresiswith flexor tendon-gliding exercise and median nerve mobilization exercise are more effective in improving pain level, symptoms severity, function status, and key pinch strengththan LLLT withflexor tendon-gliding exercise and median nerve mobilization exercisein patients with idiopathic mild or moderate CTS.</p>		
Key words	1.	Carpal tunnel syndrome.
	2.	Phonophoresis.
	3.	Low level laser.
Classification number	:	000.000.
Pagination	:	135 p.
Arabic Title Page	:	الليزر منخفض الشدة مقابل الإدخال بالموجات فوق الصوتية في علاج متلازمة اختناق النفق الرسغي.
Library register number	:	5943-5944.

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PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Dina Mohamed Ali Al –Hamaky
Title	:	Assessment of proprioception in Mechanical Low Back Pain.
Dept.	:	Physical Therapy Department for musculoskeletal disorder and its Surgery.
Supervisors	1.	Alaa Eldin Abd Elhakem Balbaa
	2.	Aly M. E. Elzawahry
	3.	Lilian Albert Zaki
Degree	:	Doctoral.
Year	:	2018.
Abstract	:	
<p>Background: mechanical low back pain (MLBP) is a common musculoskeletal pain condition. The relationship between proprioception deficit and mechanical low back pain still not well-known. Objective: The purpose of this study was to investigate whether or not there is a proprioception deficit in mechanical low back pain and if it would be approved there was a proprioception deficit, attention would be paid to focus on proprioception training for patients with mechanical low back pain in physiotherapy program, in addition to that correlation study on factors which might affect accuracy of proprioception like age, gender, body mass index and correlation of proprioception accuracy with pain intensity were done. Methods In this study, 130 persons (65 patients with mechanical low back pain and 65 normal persons) were chosen for the study 23 were excluded and 107 were assigned into two groups. Group A: fifty three patients (17 females and 36 males) with mechanical low back pain were included in this group. The mean \pm SD age, weight, height were 22.08 ± 1.920 years, 74.28 ± 13.410 kg, 172.92 ± 8.546 cm respectively. Group B: Fifty four normal subjects (11 females and 43 males) were included in this group. The mean \pm SD age, weight, height were 21.11 ± 1.755 years, 72.93 ± 13.548 kg, 174.02 ± 7.735 cm respectively. Each participant of the two groups was asked to memorize accurate repositioning of trunk flexion 30 degrees from neutral position three times and the mean of the 3 measurements was calculated. Result: the results revealed that there was a proprioception deficit in mechanical low back pain. The mean of active repositioning error of group A was 34.8 and that for group B was 31.8. The mean difference between both groups was 3. There was a significant increase in active repositioning error of group A compared with that of group B ($p = 0.001$). Conclusion: It can be concluded that there is a proprioception deficit in patients who suffer from mechanical low back pain. There was no link between age and proprioception in experimental group. There was a correlation between proprioception and body mass index, gender. There was a correlation between proprioception accuracy and pain intensity.</p>		
Key words	1.	Mechanical low back pain.
	2.	Proprioception.
	3.	repositioning error
	4.	Assessment in Mechanical Low Back Pain.
Classification number	:	000.000.
Pagination	:	106 p.
Arabic Title Page	:	تقييم الحس العميق في ألم أسفل الظهر الميكانيكي.
Library register number	:	6071-6072.

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PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

Author	:	Ehab Ali Abdallah.
Title	:	Comparison Between Static Stretching Exercises And Proprioceptive Neuromuscular Facilitation Stretching Techniques In Treatment Of Knee Osteoarthritis
Dept.	:	Physical Therapy Department for musculoskeletal disorder and its Surgery.
Supervisors	1.	Salwa Fadl Abdelmageed
	2.	Hamed Mohamed El-Khozamy
		Mohamed Goda Montasser
Degree	:	Doctoral.
Year	:	2018.
Abstract	:	
<p>Background: Osteoarthritis is a widespread, slowly developing disease, with a high prevalence that increases with age, since it causes difficulty in rising from a chair, climbing stairs, sitting walking,. Regarding exercises used in OA, stretching exercises reported to be beneficial in treating osteoarthritis but there is a conflict of evidence among which type is of greater benefit among authors either static stretching exercises, Proprioceptive Neuromuscular Facilitation Stretching Techniques or the combination between both of them. Purpose: The purpose of this study was to compare the efficacies of static stretching and proprioceptive neuromuscular facilitation stretching techniques in patients with knee OA. Patients: Thirty patients were randomly assigned to two groups, group (A)15 patients with mean age, body mass, height values of 57.2±6.41 years, 86.93±11.83 kg, 165.8±8.2 cm respectively that received 5 weeks of static stretching exercises or group (B) 15 patients with mean age, body mass, height values of 59.66±6.34 years, 92.46±21.22 kg, 163.73±11.61 cm respectively that received 5 weeks of proprioceptive Neuromuscular Facilitation stretching techniques. Assessment: Function, range of motion, flexibility of rectus femoris hamstring muscles were examined before, after treatment, one month follow up after intervention. Results: In both exercise groups there was significant improvement for all measures except knee flexion range of motion, function, rectus femoris flexibility and knee flexion range of motion while when comparing both groups there was significant differences in hamstrings flexibility knee extension range of motion. Conclusion: Both static stretching exercises and proprioceptive Neuromuscular Facilitation stretching techniques are effective in improving functional performance, flexibility range of motion in patients with knee osteoarthritis.</p>		
Key words	1.	knee osteoarthritis.
	2.	functional evaluation..
	3.	flexibility assessment.
	4.	static stretching.
	5.	neuromuscular facilitation stretching techniques
Classification number	:	000.000.
Pagination	:	140 p.
Arabic Title Page	:	مقارنة بين تمارين الاستطالة من الثبات وتقنية الاستطالة بالتحفيز العصبي العضلي الحسي العميق في علاج الالتهاب العظمي المفصلي للركبة.
Library register number	:	6061-6062.

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PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

Author	:	Hanaa Ali Hafez Mohamed.
Title	:	Effect of Thoracic Spine Mobilization and Core Stability Exercises on Chronic Mechanical Low Back Pain.
Dept.	:	Physical Therapy Department for musculoskeletal disorder and its Surgery.
Supervisors	1.	Salwa Fadl Abd El Mageed
	2.	Atef Mohamed Morsi
	3.	Lilian Albert Zaki
Degree	:	Doctoral.
Year	:	2018.
Abstract	:	
<p>Background: The prevalence of acute and CLBP in adults doubled in the last decade and continues to increase dramatically in the aging population, affecting both men and women in all ethnic groups. LBP has a significant impact on functional capacity, as pain restricts occupational activities and is a major cause of absenteeism. Lumbar stabilization exercise is recognized as an important therapeutic exercise due to “its effect on functional recovery and range of motion in patients with low back pain. Spinal mobilization therapy is one of many therapies for the treatment of low back pain and is used worldwide by various practitioners. Purpose: to investigate the effect of thoracic mobilization with movement and core stability exercise on pain, range of motion and functional disability in patient with chronic mechanical low back pain. Patients and Methodology: Forty five male and female patients were diagnosed as chronic mechanical low back pain their age ranged from 20 to 50 years, were randomly assigned into three groups, group (A) they received core stability exercises three times per week for 2 weeks, group (B) they received thoracic mobilization with movement and core stability exercises three times per week for 2 weeks, group (C) they received thoracic mobilization with movement three times per week for 2 weeks. All patients were evaluated by VAS; Modified modified Schobars test and Oswestry questionnaire before and after the treatment. Results: Statistical analysis of data showed that there was significant reduction in pain; significant improvement of lumbar range of motion and significant improvement of functional ability in the three groups after treatment. Conclusion: There was a significant effect of using core stability exercises and thoracic mobilization with movement on pain reduction, increasing range of motion and improvement of functional ability in chronic mechanical low back pain patients.</p>		
Key words	1.	Thoracic Spine Mobilization.
	2.	Core stability exercises.
	3.	Mechanical low back pain.
	4.	thoracic mobilization with movement
Classification number	:	000.000.
Pagination	:	147 p.
Arabic Title Page	:	تأثير تحريك الفقرات الصدرية وتمارين تقوية الأساس على مرضى ألم أسفل الظهر المزمن.
Library register number	:	6143-6144..

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Author	:	Nashwa Mohamed Alaa El Din Allam
Title	:	Siwan traditional program versus traditional physical therapy in treatment of rheumatic patients
Dept.	:	Physical Therapy Department for musculoskeletal disorder and its Surgery.
Supervisors	1.	Alaa El Din Abd El-Hakim Balbaa
	2.	Hassan Ahmed El Shahat Khater
	3.	Ghada Mohamed Rashad Koura
Degree	:	Doctoral.
Year	:	2018.
Abstract	:	
<p>Background: Rheumatoid arthritis (RA) is an autoimmune disease affects 0.5 - 1% of the adult population of developed regions which characterized by a chronic symmetrical polyarthritis of large and small joints, and by morning stiffness, which can lead to musculoskeletal impairment, and functional disabilities. Among the strategies of non-pharmacological treatment of RA are physical exercises that address the development of range of movement, functional, cardiovascular capacity and muscular strength stand out generally .There is a growing interest in treatments involving natural means and procedures, alternative to those of conventional medicine. Some special sands are being used worldwide in therapeutic applications especially in musculoskeletal problems.</p> <p>Purpose: The purpose of this study was to compare between the effects of Siwan traditional therapy and traditional physical therapy in treatment of rheumatoid arthritis, secondary purpose of this study was to compare composition of sand in burial area versus non burial area in Siwa, Materials and Methods: Thirty patients with rheumatoid arthritis (30 to 50 years old) according to the American Rheumatism Association criteria (2010) participated in the study. The patients were assigned into 2 equal groups. Group (A) received Siwan traditional physical therapy in form of sand bathing, followed by massage with olive oil only in last session for 7 days and group (B) received traditional physical therapy for one month 2 session per week in the form of hot application, TENS, and exercise. Pain severity measured by visual analogue scale, functional disability measured by health assessment questionnaire (HAQ), CRP and ESR were measured by blood analysis, and sand analysis by MS Electron microscope. Results: There were significant differences ($P < 0.05$) in pain level and HAQ between both groups with a significant reduction in favor to the group (A) there were no statistical difference in CRP and ESR level between both groups</p> <p>Conclusion: The Siwan therapy program was more effective on clinical symptoms than traditional physical therapy program in the treatment of rheumatoid arthritis patients. The sand in burial area enriching in Ca, Mg and contain carbon while non burial area didn't contain carbon</p>		
Key words	1.	Rheumatoid arthritis.
	2.	Physical Therapy,
	3.	sand therapy
	4.	Siwan Therapy
Classification number	:	000.000.
Pagination	:	88 p.
Arabic Title Page	:	المقارنه بين برنامج سيوه التقليدي وبرنامج العلاج الطبيعي التقليدي في علاج مرضي الروماتويد.
Library register number	:	5727-5728.

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PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

Author	:	Nehad Mohamed AbdElnabi Mousa
Title	:	Effect of Selected Endurance Training Program in Treatment of Chronic Mechanical Neck Pain
Dept.	:	Physical Therapy Department for musculoskeletal disorder and its Surgery.
Supervisors	1.	Alaa El Din Abd El Hakim Balba
	2.	Mohamed Maher Saeid
Degree	:	Doctoral.
Year	:	2018.
Abstract	:	
<p>Background: Chronic neck pain is a common condition affecting many large proportion of population all over the world and in our society. Many physical therapy approaches used to treat neck pain, there is high evidence that exercises are effective but still a great debate about which type is more effective. Purpose: to investigate the effect of selected endurance training program frequency on patient's response (pain, function, cervical position sense, and neck flexor endurance time test) in cases of chronic mechanical neck pain. Methods: Thirty patients diagnosed as chronic mechanical neck pain were assigned randomly into two equal groups. They were assessed by neck pain severity, neck disability index, neck flexor muscles endurance time test, and cervical error position test pretreatment and post treatment. The first experimental group (A) received endurance training of neck flexor and extensor muscles and active correction of the scapula three times per week. The second experimental group (B) received the same treatment program two times per week. Results: Patients of both groups showed a significant improvement in all the measured variables. Difference between groups showed non significant statistical difference in all the measured variables. Conclusions: From the finding of the current study we can conclude that endurance exercises are effective in treatment of neck pain, and also we concluded that the frequency from two to three times of the exercise treatment per week had no effect on treatment outcomes.</p>		
Key words	1.	mechanical neck pain.,
	2.	cervical position sense.
	3.	session's frequency
	4.	endurance exercise
	5.	Training Program in Neck Pain
Classification number	:	000.000.
Pagination	:	91 p.
Arabic Title Page	:	تأثير برنامج تدريب مختار على التحمل في علاج آلام الرقبة الميكانيكية المزمنة.
Library register number	:	5839-5840.