

**ELECTRONIC GUIDE TO THESES APPROVED BY
DEPARTMENT OF BASIC SCIENCE
PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Department of Basic Science
Master Degree
2014

Author	:	Ahmed Mahmoud Ahmed Mahmoud
Title	:	Influence of magnetic field therapy on calcium cascade
Dept.	:	Department of Basic Science.
Supervisors	1.	Mohsen Mohamed El-Sayyad
	2.	Laila Ahmed Rashed
	3.	Azza Mohamed Atya
Degree	:	Master.
Year	:	2014.
Abstract	:	
<p>Background: the recurrent muscle spasm and dysfunction associated with chronic low back dysfunction is the most affecting daily activities. Most previous studies concentrated on the role of magnetic therapy in management of LBP. The role of magnetic therapy in reducing muscle spasm has not been studied. Purpose: To investigate the effect of magnetic field therapy on calcium cascade and pH of the blood of the low back dysfunction patients. Methods: 30 patients were selected of both gender and divided into two equal groups: Group I (Experimental): the patients received conventional physical therapy program (Infrared, ultrasound, magnetic field therapy) for 12 sessions. Group II: patients received conventional physical therapy (Infrared, ultrasound, therapeutic exercises) for the same treatment period. Kits of blood samples were analyzed to measure ionized calcium and blood pH before and after the treatment. Results: Experimental group demonstrated significantly changes in ionized calcium, with increased mean values detected for pH that underlines that there is an effect of magnetic field treatment on calcium ionized and thus increase the possibility of effectiveness in reducing muscle spasm. Conclusions: magnetic field therapy was effective in management of LBD.</p>		
Key words	1.	low back dysfunction
	2.	muscle spasm
	3.	magnetic field therapy
	4.	ionized calcium
	5.	pH
Classification number	:	
Arabic Title Page	:	تأثير المجال المغناطيسي العلاجي على الكالسيوم المتأين.
Library register number	:	3695-3696.

**ELECTRONIC GUIDE TO THESES APPROVED BY
DEPARTMENT OF BASIC SCIENCE
PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Ahmed Said Abd El -Wahed.
Title	:	Effect Of Gans Maneuver On Postural Instability In Patients With Benign Positional Vertigo.
Dept.	:	Department of Basic Science.
Supervisors	1.	Neveen Abdel Latif.
	2.	Dalia Mosaad.
	3.	Abir Omara.
Degree	:	Master.
Year	:	2014.
Abstract	:	
<p>Background: Patients with benign paroxysmal positional vertigo (BPPV) especially the elderly often experience a greater incidence of falling, postural instability as well as unsteadiness of gait during and between the vertigo attacks. The Gans repositioning maneuver is a new physical therapy repositioning maneuver was developed for use with these patients. Purpose: to investigate whether successful resolution of the episodic vertigo, through use of the Gans repositioning maneuver, would be accompanied by improvement in postural stability. Study Design: Two group pre and post test control group design. Methods: Thirty patients with unilateral posterior canal BPPV canalithiasis form were participated in the study. The patients were from both gender with age ranged from 40 to 70 years. Their diagnosis was confirmed by positional testing and Videonystagmography findings. They were randomly assigned into 2 groups of equal number, 15 per each group. Group A (experimental group) was assessed by side lying test and treated by Gans maneuver while group B (control group) was assessed by Dix-Hallpick test and treated by Epley maneuver. Postural stability was assessed by computerized dynamic posturography before the application of the repositioning maneuver and after complete remission of BPPV symptoms regardless number of sessions. Results: Paired t-test revealed significant improvement in equilibrium scores, composite score and vestibular ratio with a complete remission of vertigo and nystagmus within each group $P= 0.0001$, while unpaired t-test showed no significant difference between groups $P= 0.22$. Also, (86.7 %) of patients treated by Gans and (46.67%) who treated by Epley were cleared after one session while (13.3%) of group A were cleared after 2 session and (53.33%) of group B were cleared after 2 to 4 sessions. Conclusion: Gans maneuver is an effective physical therapy maneuver in improving not only postural instability in patients with PC-BPPV but also in resolution of vertigo and nystagmus.</p>		
Key words	1.	Benign paroxysmal positional vertigo
	2.	Postural balance
	3.	Gans repositioning maneuver
	4.	Posture.
	5.	Vertigo--Treatment.
Classification number	:	616.841.EAE
Arabic Title Page	:	تأثير طريقة غانس على إختلال القوام في مرضى الدوار الموضعي الحميد.
Library register number	:	3793-3794.

**ELECTRONIC GUIDE TO THESES APPROVED BY
DEPARTMENT OF BASIC SCIENCE
PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Aida Amir Nassif Naguib
Title	:	Effect of kinesio tape on fatigue timing in lower back muscles in normal subjects
Dept.	:	Department of Basic Science.
Supervisors	1.	Fatma Seddik Amin
	2.	Amir Nazih Wadee
Degree	:	Master.
Year	:	2014.
Abstract	:	<p>Background: Fatigue of the back muscles has been found to be an important factor in the increased movement of the body's center of pressure (CoP) and a predictor of falls; lumbar fatigue alters the ability to sense a change in lumbar position, impairing ankle proprioceptive acuity that impairs head and trunk control while walking. Purpose: to examine the effect of kinesio tape on fatigue timing in lower back muscles in normal subjects. Subjects: Forty healthy sedentary volunteers from both sexes. Methods: Subjects were randomly distributed into two equal groups. Experimental group (with mean age of 20.25 ± 2.22 years) were tested for lower lumbar muscles fatigue timing twice the first test with out kinesio tape then apply kinesio tape and retest after 24 hours, control group (with mean age of 19.95 ± 1.76 years) were tested for lower lumbar muscles fatigue timing twice within two consequent days without kinesio tape. Results: paired t-test in experimental group showed significant improvement in peak torque ($t= 4.31, p= 0.0004$) and in number of repetitions ($t=6.04, p=0.0048$), insignificant differences in peak torque and number of repetitions in control group ($t=1.915, p=0.0707$) ($t=0.1542, p=0.8791$) respectively. Comparison between groups unpaired t-test revealed that there were insignificant differences in peak torque as ($t=0.2122, p=0.8331$), in adverse it showed a significant improvement in the number of repetitions ($t=2.564, p=0.0144$). Conclusion: Kinesio tape improved the peak torque and delayed fatigue timing of the lower back muscles.</p>
Key words	1.	Lower back muscle fatigue
	2.	muscle fatigue timing
	3.	kinesio tape
	4.	normal subjects.
Classification number	:	
Arabic Title Page	:	تأثير شريط كينزيو على توقيت الإجهاد العضلي لعضلات أسفل الظهر في الأشخاص الطبيعيين.
Library register number	:	3823-3824.

**ELECTRONIC GUIDE TO THESES APPROVED BY
DEPARTMENT OF BASIC SCIENCE
PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Amr Mohamed Bayoumi El-Sharkawy.
Title	:	Influence Of Microcurrent On Quadriceps Femoris Muscle Fatigue.
Dept.	:	Department of Basic Science.
Supervisors	1.	Omaima Mohamed Ali Kattabei
	2.	Abeer Abd El-Rahman Mohamed
Degree	:	Master.
Year	:	2014.
Abstract	:	
<p>Purpose : To investigate the influence of preexercise microcurrent electrical stimulation (MES) on the fatigued quadriceps femoris muscle. Design: Randomized double-blinded placebo-controlled trial. Randomization was performed by a simple drawing of a card, which determined whether preexercise active MES or placebo MES should be given at the first exercise session. At the second session volunteers received whichever preexercise treatment was not given at the first session. Methods: Fifteen healthy male volunteers participated in the study. Their age ranged from 18 to 25 years. They received either pre-exercise active or placebo MES (on the front of the thigh on quadriceps femoris muscle of the left non-dominant lower limb for 20 minutes). The volunteers did concentric exercise of quadriceps femoris muscle on Biodex III isokinetic dynamometer until reach 50% of peak torque of maximum voluntary contraction MVC. Results: results revealed that MES attenuated muscle fatigue by increasing MVC as the mean value of MVC of quadriceps muscle after MES was (153.53± 36.13) and after Placebo was (139.08±38.51) where the t-value was (4.77) and P-value was (0.0001), delaying time to reach 50% of MVC as the mean value of time after MES was (73.66± 18.53) and after Placebo was (69.4±17.24) where the t-value was (3.33) and P-value was (0.005), decreasing level of intensity of pain after 50% of MVC as the mean value of level of intensity of pain after MES was (4.13± 1.06) and after Placebo was (4.86±1.18) where the t-value was (3.55) and P-value was (0.003). and inhibiting rise of CK after reaching 50 % of MVC as the mean of Ck level before application of MES was (124.57±28.0) and after application of MES was (125.38±29.63). The CK level before application of placebo MES was (125.32±33.16), and after application of placebo MES was (140.69±35.58). Repeated measurement ANOVA revealed that, there was a significant change in CK level between active and placebo MES in favor of active MES as the F-value was (8.76) and P-value was (0.0001)., Conclusion : MES application attenuated quadriceps femoris muscle fatigue.</p>		
Key words	1.	Microcurrent
	2.	Muscle Fatigue
	3.	Maximum Voluntary Contraction
	4.	Creatine Kinase
Classification number	:	612.74.EAI
Arabic Title Page	:	تأثير التيار المتناهي الصغر على الاجهاد العضلي للعضلة رباعية الرؤوس للفخذ.
Library register number	:	3683-3684.

**ELECTRONIC GUIDE TO THESES APPROVED BY
DEPARTMENT OF BASIC SCIENCE
PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Asmaa Mohamed Wahba.
Title	:	Myofascial Trigger Points Pressure Release Versus Ultrasound Therapy In Treatment Of Knee Osteoarthritis.
Dept.	:	Department of Basic Science.
Supervisors	1.	Amir Mohamed Saleh
	2.	Yasser Mohammed Aneis
	3.	Mohamed Osama Hegazy
Degree	:	Master.
Year	:	2014.
Abstract	:	
<p>Background: Knee osteoarthritis (OA) is one of the most common causes of disability in elderly. myofascial pain and dysfunction is partly responsible for pain and disability in this disease. The purpose: of this study was to compare the efficacy of Myofascial trigger points pressure release and Ultrasound therapy on trigger points associated with knee OA. Subjects: Thirty-two knee osteoarthritis patients from both sexes with age ranged from 55 to 65 years old were assigned into two equal groups: Group(A) consists of sixteen patients with mean age of (58.43 ± 2.44) years, mean weight (84.96 ± 8.46) kilograms (Kg), mean height (163.25± 8.31) centimeters (Cm) and mean BMI (31.83 ± 1.2) Kg/m²; Group (B) consisted of sixteen patients with mean age (58.75 ± 2.69) years, mean weight (87.43 ± 5.85) kilograms (Kg), mean height (165.43 ± 6.6) centimeters (Cm) and mean BMI (31.95 ± 1.44) Kg/m². Methods: Myofascial trigger point pressure release was used for group A and Ultrasound therapy was used for group B, Traditional physical therapy exercise program in the form of strengthening and stretching exercises for the thigh muscles were used for both groups. Treatment was done 3 times a week for 4 weeks. Range of motion, pain level and functional performance were measured before and after treatment. Results: Both groups demonstrated improvement in all study variables after treatment, but improvement was better in group (A) than in group (B). Discussion and Conclusion: Myofascial trigger points pressure release treatment proved to be beneficial and had the upper hand over Ultrasound in improving range of motion, perceived knee pain and decreasing the limitation of functional performance in patients with knee osteoarthritis.</p>		
Key words	1.	Knee osteoarthritis
	2.	Myofascial trigger points pressure release
	3.	Ultrasound therapy
	4.	Pressure Release.
Classification number	:	
Arabic Title Page	:	مقارنه بين الضغط الانفراجي لنقاط النسيج العضلي الضام مقابل الموجات فوق الصوتية في علاج خشونة الركبه.
Library register number	:	3855-3856.

**ELECTRONIC GUIDE TO THESES APPROVED BY
DEPARTMENT OF BASIC SCIENCE
PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Ayah Mahmoud Mohamed
Title	:	The Effect of Kinesiotape on EMG Muscle Activity in Rounded Shoulder
Dept.	:	Department of Basic Science.
Supervisors	1.	Mohsen Mohamed El-Sayyad
	2.	Dalia Mohamed Mohamed Mosaad
Degree	:	Master.
Year	:	2014.
Abstract	:	
<p>Background: The kinesiotape is an important addition which affects outcomes of physical therapy program. Although many attempts were done to determine the effectiveness of kinesiotape on muscle activity, It has not been fully clarified. The purpose: This study was conducted to investigate the effect of kinesiotape on EMG of pectoralis major and rhomboids muscles in subjects with rounded shoulder. Material and methods: 30 subjects were suffering from rounded shoulders. Their age ranged from 18 to 25 years .Subjects were divided into two equal groups. Experimental group (group A) received traditional exercises (stretching of shortened muscles and strengthening of weak muscles) and kinesiotaping. Control group(group B) received only the traditional exercises. EMG activity was measured before and at the end of treatment program which continued for 7 days. Results: There was significant effect of kinesiotape (group A) on EMG activity of clavicular and sternal heads of pectoralis major and on rhomboids muscles with mean differences (0.15,0.11,0.11) and P values(0.0001,0.0001,0.0001) respectively. While in group B the traditional exercises showed less significant effect on EMG of clavicular and sternal heads of pectoralis major and on rhomboids muscles with mean differences (0.08,0.06, 0.03) and P values(0.0001,0.0001,0.0001) respectively. Conclusion: It was concluded that kinesiotape may be an effective addition to the physiotherapy program in cases of rounded shoulder</p>		
Key words	1.	Kinesiotape
	2.	Rounded shoulder
	3.	EMG
Classification number	:	
Arabic Title Page	:	تأثير شريط كينزيو على النشاط الكهربائي للعضلات في دوران الكتف.
Library register number	:	3947-3948.

**ELECTRONIC GUIDE TO THESES APPROVED BY
DEPARTMENT OF BASIC SCIENCE
PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Doaa Atef Aly Abd El Wahed
Title	:	Feasibility and Reliability of Modified Functional Independence Measure Questionnaire (weeFIM) in Children with Healed Burns
Dept.	:	Department of Basic Science.
Supervisors	1.	Mohamed Mahmoud Abdel khalek Khalaf.
	2.	Ahmed Amin El-Sheikh.
	3.	Eman Mohamed Othman.
Degree	:	Master.
Year	:	2014.
Abstract	:	
<p>Purpose of the study was to test feasibility and reliability of the wee functional independence measure (weeFIM) in children with healed burns. Subjects and methods: Fifty three Patients with healed burns who were from 3 years to 16 years and were treated in the outpatient burn and surgery clinic in the Faculty of Physical Therapy - Cairo University / Om Elmisryeen hospital / Kasr El-Aini hospital. Data was collected using arabic version of the weeFIM instrument so the study was preceded by arabic translation of the instrument. Results of the study showed that the Arabic version of WeeFIM has borderline reliability (Cronbach's Alpha = 0.619 and Pearson correlation coefficient: (r = 0.986). It was concluded that the Arabic version of WeeFIM has borderline reliability and excellent feasibility in measuring and reporting the functional outcome of children with healed burns.</p>		
Key words	1.	wee FIM instrument.
	2.	functional independencefeet.
	3.	dynacross-cultural adaptation
	4.	psychometric properties.
	5.	pediatric burnsmic balance.
Classification number	:	
Arabic Title Page	:	إمكانية و مصداقية إستبيان قياس الإستقلال الوظيفي المعدل في الأطفال المصابين بحروق بعد التئامها.
Library register number	:	3977-3978.

**ELECTRONIC GUIDE TO THESES APPROVED BY
DEPARTMENT OF BASIC SCIENCE
PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Doaa Ayoub Elimy Mohamed
Title	:	Assessment of dynamic balance in adults with pronated feet.
Dept.	:	Department of Basic Science.
Supervisors	1.	Mohamed Hussein Elgendy
	2.	Ashraf Nehad Moharam
	3.	Ghada Mohamed Rashad Koura
Degree	:	Master.
Year	:	2014.
Abstract	:	
<p>Background: Foot pronation cause changes in foot mobility, foot posture, and load distribution under the foot which influences dynamic balance, that is essential in activities of daily living and for optimal performance in sport activity. Purpose: To investigate the effect of pronated feet on dynamic balance including overall stability index (OAI), anteroposterior stability index (APSI) and mediolateral stability index (MLSI). Study Design: The design of the study was an experimental design. Subjects: Forty subjects from both sexes were selected from the Faculty of Physical Therapy, Cairo University, their mean age (23.55 ± 1.74) years, divided into two groups, group A (8 males and 12 females) with pronated feet, and group B (9 males and 11 females) with normal feet. Methods: The Navicular Drop Test was used to determine if the feet were pronated and Biodex Balance System was used to assess dynamic balance at level 8 and level 4 for both groups. Results: There was no significant difference in dynamic balance including (OSI, APSI and MLSI) of the Biodex at stability level (8) (most stable) ($p = 0.56$). While there was a significant difference between both groups in all dependent variables at stability level (4) (less stable level) ($p = 0.0001$). Conclusion: It may be concluded that pronated feet have an effect on dynamic balance and there is balance affection in subjects with pronated feet.</p>		
Key words	1.	Pronated feet,
	2.	dynamic balance.
Classification number	:	
Arabic Title Page	:	تقييم الاتزان الديناميكي في البالغين من ذوي الأقدام المنكبة.
Library register number	:	3985-3986.

**ELECTRONIC GUIDE TO THESES APPROVED BY
DEPARTMENT OF BASIC SCIENCE
PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Hager Nazieh Mohamed Hekal.
Title	:	Effect of Strain Counterstrain on Piriformis Syndrome in Patient with Chronic Low Back Pain
Dept.	:	Department of Basic Science.
Supervisors	1.	Omaima Mohamed Ali Kattabei.
	2.	Samy Abdul-Sammad Nasef.
	3.	Hassan Hussein.
Degree	:	Master.
Year	:	2014.
Abstract	:	
<p>Background: Piriformis syndrome is a medical condition that affects the neuromuscular system causing pain and tenderness over the piriformis muscle resulting from compression of the sciatic nerve by the piriformis muscle. Purpose: The purpose of this study was to investigate the effect of strain counter strain on piriformis syndrome in patient with chronic low back pain. Method: Thirty patients with piriformis syndrome their age ranged from 30 to 50 years old participated in this study. They were assigned into two equal groups each group has 15 subjects, group A received strain counterstrain technique and traditional treatment (ultrasonic and stretching exercise of piriformis muscle) for 12 sessions 3 days/week every other day. Group B received traditional treatment for 12 sessions 3 days/week every other day. Pressure algometer, functional disability assessment, Visual analogue scale and ROM were used to evaluate patients before and after application of strain counterstrain technique and traditional treatment. Results: Statistical analysis revealed that group A recorded a high significant increase in pressure pain threshold, range of motion, decrease in pain level and functional disability before and after treatment with percentages of (28.7%, 10%, 24.3% and 28.9%) respectively, $P \leq 0.05$. However in group B recorded a change in pressure pain threshold, pain level and functional disability only before and after traditional treatment with percentages of (4.1%, 12.6%, 6.06%) respectively. Comparison between groups revealed that there was a significant difference between groups in pressure pain threshold, visual analogue scale, range of motion and functional disability assessment, $P \leq 0.05$. Conclusion: Strain counter strain are effective method on treatment of piriformis syndrome in patient associated with chronic low back pain.</p>		
Key words	1.	strain counterstrain
	2.	Piriformis syndrome
	3.	chronic low back pain
	4.	Low Back Pain
Classification number	:	617.5606.HHE
Arabic Title Page	:	تأثير التوتّر والتوتّر المضاد على متلازمة العضلة كمثرية الشكل في الام اسفل الظهر المزمنة.
Library register number	:	3659-3660.

**ELECTRONIC GUIDE TO THESES APPROVED BY
DEPARTMENT OF BASIC SCIENCE
PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Haidy Samir Roshdy
Title	:	Effect of electromagnetic radiation emitted by cell phone on facial nerve in normal subjects.
Dept.	:	Department of Basic Science.
Supervisors	1.	Maher Ahmed El keblawy
	2.	Hanan Hosney Abd El Alem
	3.	Olfat Ibrahim Ali
Degree	:	Master.
Year	:	2014.
Abstract	:	
<p>Background:It is no longer a luxury for rich people, nowadays mobile phone (MP) is used by everyone and it becomes one of the features of modern living. Exposure to electromagnetic radiation (EMR) emitted by MP could affect health directly. There is an increasing suspicion regarding MP causing peripheral nerve dysfunction. The purpose: of this study wasto investigate the effect of EMR emitted by a cell phone on facial nerve functions in normal healthy subjects. Materials and methods: Thirty normal healthy subjects, both gendersaged 18 to 26 years old with a mean of (21.36 ± 2.2). The participants were divided into 2 groups as follows: facial nerve side exposed to electromagnetic waves emitted from cell phone and non-exposed side.A 30 minutes MP call was done by the participants. The MP applied to the side usually used during calls. Facial nerve functions represented by nerve excitability test (NET) and amplitude and latency were measured bilaterally and recorded before, immediately after and 30 minutes after the call. Results: ANOVA with repeated measure revealed statistical significant enhancement of NET where the p-value was (0.047) between the pre-test and immediately after MP callon exposed side. There is no statistical significant difference in NET in the non-exposed side or amplitude and latency of CMAP in both sides as p value ≤0.05. Conclusion: Thirty minutes of continuous application of the cell phone on one side of the head causes enhancement of the facial nerve excitability on the same side immediately after the call.</p>		
Key words	1.	mobile phone
	2.	electromagnetic radiation
	3.	facial nerve functions
	4.	post-isometric relaxation.
	5.	electroneurography.
Classification number	:	
Arabic Title Page	:	تأثير الإشعاعات الكهرومغناطيسية الصادرة من الهاتف الخليوي على العصب السابع في الأشخاص الطبيعيين .
Library register number	:	4007-4008.

**ELECTRONIC GUIDE TO THESES APPROVED BY
DEPARTMENT OF BASIC SCIENCE
PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Haytham Gamal Abd El-Aziz
Title	:	Efficacy of Kinesio Taping Versus Phonophoresis on Mechanical Neck Dysfunction.
Dept.	:	Department of Basic Science.
Supervisors	1.	Amir Mohamed Saleh.
	2.	Mohamed Serag El Dein Mahgoub.
	3.	Mohamed Osama Hegazy.
Degree	:	Master.
Year	:	2014.
Abstract	:	
<p>Background: Mechanical Neck Dysfunction (MND) affects about two thirds of people in middle age with common cause of bad posture in people who spent much of their working day at a desk with a bent-forward posture. Kinesio taping (KT) is a new therapeutic modality to correct and treat many musculoskeletal disorders. It is based on natural healing process and it is beneficial in reducing pain and restoring function. Phonophoresis (PH) had wide utility in physical therapy and sports medicine for the treatment of many musculoskeletal disorders. The purpose: of this study was to compare the efficacy of kinesio taping with phonophoresis on neck pain intensity, cervical ROM and neck disability in patients with MND. Methods: Pain intensity, cervical ROM and neck function disability were measured pre and post treatment by Visual Analogue Scale (VAS), OB Goniometer and Neck Disability Index (NDI) respectively. Forty five patients with MND participated in this study, their age ranged from 20-45 years. They were assigned randomly and equally into three groups; Control group (A) received exercises program only inform of stretching and isometric strengthening exercises 3 days/week for 12 sessions, Group (B) received phonophoresis with exercise program 3 days/week for 12 sessions, and Group (C) received kinesio taping replaced every 4 days with 2days off with exercise program performed 3 days/week for 12 sessions. Results: There was a significant decrease in VAS, a significant increase in cervical ROM and significant decrease in NDI in all three groups with the superior effect of kinesio taping on phonophoresis. The control group has the least effect. Conclusion: It was concluded that the results showed improvement toward the kinesio taping more than phonophoresis on Pain intensity, cervical ROM and neck function disability in MND.</p>		
Key words	1.	Mechanical neck dysfunction
	2.	kinesio taping
	3.	Phonophoresis
	4.	Neck—Diseases.
Classification number	:	616.7.AHE
Arabic Title Page	:	كفاءة شريط كينيسيو مقابل إدخال الدواء عن طريق الموجات فوق الصوتية في حالات الخلل الوظيفي الميكانيكي للرقبة.
Library register number	:	3783-3784.

**ELECTRONIC GUIDE TO THESES APPROVED BY
DEPARTMENT OF BASIC SCIENCE
PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Hend Hassan El-Banna Mahmoud
Title	:	Effect Of Monochromatic Infrared Energy On Pain In Diabetic Patients Type (2)
Dept.	:	Department of Basic Science.
Supervisors	1.	Wadida H. Abdel Kader Al Sayed
	2.	Ibtissam Zakaria Mohammed
	3.	Soheir Shehata Rizk Alla
Degree	:	Master.
Year	:	2014.
Abstract	:	
<p>Background: Diabetes mellitus is a group of metabolic diseases characterized by chronic hyperglycemia resulting from defects in insulin secretion, insulin action, or both. Type 2 diabetes, once known as adult-onset or noninsulin-dependent diabetes, is a chronic condition that affects the way the body metabolizes sugar (glucose), the body's main source of fuel. Purpose: To investigate the effect of monochromatic infrared energy (MIRE) on pain and quality of life impairments in patients type (2). Method: Forty patients with diabetes type (2) having the same described medication by the physician; they were assigned into two main groups of equal number, as a study group (A) and a control group (B). Group (A): Twenty patients received the described medication only and the MIRE (Anodyne therapy). Group (B): Twenty patients received their described medication only. All Subjects, in group (A), received treatment by 2 pad on each sole of the foot, one on the forefoot and the other on the heel for 40 minutes/session three times per week for four weeks. All patients filled out visual analogue scale and quality life scale before beginning the study and after the last session of treatment. Results: There was a significant improvement in pain and quality of life in both groups (A) and (B), while there was a significant difference in pain and quality of life between groups in favor of group (A) when these are compared after treatment ($P \leq 0.05$). Conclusion: Monochromatic near infrared photo energy is effective in pain reduction, improving quality of life in diabetic type (2) patients with diabetic neuropathy.</p>		
Key words	1.	Monochromatic infrared
	2.	Diabetic Neuropathy
	3.	Pain.
	4.	Diabetic Patients Type (2).
Classification number	:	
Arabic Title Page	:	تأثير الطاقة الضوئية تحت الحمراء أحادية اللون على الألم في مرضى البوال السكري النوع الثاني
Library register number	:	3921-3922.

**ELECTRONIC GUIDE TO THESES APPROVED BY
DEPARTMENT OF BASIC SCIENCE
PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Hussein Ali Abdelfattah Sosa
Title	:	Strain counter strain versus myofascial release in cervical myofascial pain syndrome
Dept.	:	Department of Basic Science.
Supervisors	1.	Awatef Mohamed Labib
	2.	Hassan Ahmed Neaana
	3.	Marzouk Abdelfattah Ellithy
Degree	:	Master.
Year	:	2014.
Abstract	:	
<p><u>Purpose:</u> The purpose of the study was to investigate the effect of strain counter strain versus myofascial release in cervical myofascial pain syndrome <u>Methodology:</u> forty five patients (males) who had myofascial pain syndrome, their age ranges from 20 to 35 years were selected. <u>Design of study:</u> The patients were assigned into three equal groups each one had 15 subjects (Pretest-post test control group; group A (control group): This group consisted of fifteen patients received traditional physical therapy program in the form of (Infrared radiation and stretching exercises) for 12 session over four weeks period. Group B: This group consisted of fifteen patients were received traditional physical therapy and strain counter strain for 10 minutes over 12 sessions over four week's period. Group C This group consisted of fifteen patients were received traditional physical therapy and myofascial release for 12 sessions over four week's period. Pain severity, pain presser threshold (PPT), neck disability were measured by using visual analogue scale (VAS), pain pressure algometer (PPA), neck disability index (NDI) respectively before the treatment and after the treatment in the three groups. <u>The results:</u> Within groups comparison the values of pain severity, pain presser threshold (PPT), neck functional disability in the "pre" and "post" tests indicating a significant improvements ($P < 0.5$). Between groups there was statistically non significant difference in the values of pain severity, pain presser threshold (PPT), neck functional disability in the "pre" and "post" tests ($P > 0.5$) <u>Conclusion:</u> There was no significant difference between SCS and MFR in treatment of cervical myofascial pain syndrome.</p>		
Key words	1.	strain counter strain
	2.	myofascial release
	3.	myofascial pain syndrome
	4.	cervical syndrome
Classification number	:	
Arabic Title Page	:	التوتر المضاد للتوتر مقابل إنفراج النسيج العضلي الضام في متلازمة الألم الليفي العضلي العنقي.
Library register number	:	3923-3924.

**ELECTRONIC GUIDE TO THESES APPROVED BY
DEPARTMENT OF BASIC SCIENCE**

PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

Author	:	Mahmoud Mohamed El-Abbasy
Title	:	A comparison of russian and interferential current on muscle soreness
Dept.	:	Department of Basic Science.
Supervisors	1.	Amal Fawzy Ahmed
	2.	Fawzy Ahmed Halawa
	3.	Soheir Shehata Rezk-Allah
Degree	:	Master.
Year	:	2014.
Abstract	:	
<p>Background: Delayed onset muscle soreness is a common problem of electrical stimulation that can interfere with rehabilitation as well as activities of daily living. Purpose: the purpose of this study was to investigate and compare the effect of Russian current versus Interferential current on muscle soreness. Methods: Twenty healthy subjects, untrained male and female with age ranged from 18-35years participated in this study. They were assigned into two equal groups (group I and group II). Group I (n = 10) had their non dominant quadriceps femoris muscle stimulated with interferential current with 50 Hz (bi pole, carrier frequency 4 kHz , pulse duration:125microseconds) . Group II (n = 10) had their non dominant quadriceps femoris muscle stimulated with Russian current 10/50/10 protocol with burst modulated current at 50 Hz and pulse duration 10sec. The stimulation is applied directly over the quadriceps femoris muscle. Electrical Stimulation in group I & II was administered 3 times/week for 4 weeks. The intensity of stimulation was adjusted to the current that could be maximally tolerated by each subject for 10 minutes. Muscle soreness was assessed by measuring visual analogue scale 48 hours following the 1st and last session and measuring Creatin Phospho-kinase enzyme in blood before and 48 hours after the 1st session, before and 48 hours after the last session. Results: There was no significant difference in pain perception and the level of blood Creatin Phospho-kinase enzyme after the application of Russian current or Interferential current. Conclusion: Both Russian current and Interferential current did not produce muscle soreness. Key words: Electrical stimulation, Russian current. Interferential current, Muscle soreness, Creatin Phospho-kinase enzyme.</p>		
Key words	1.	Electrical stimulation
	2.	Russian current
	3.	Interferential current
	4.	muscle soreness.
Classification number	:	
Arabic Title Page	:	مقارنه بين التيار الروسى والتيار المتداخل على ألم العضلات.
Library register number	:	4025-4026.

**ELECTRONIC GUIDE TO THESES APPROVED BY
DEPARTMENT OF BASIC SCIENCE
PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Mariam Omran Attyiat Grase
Title	:	Alteration on Cervical Curvature in Computer Users with Prolonged Sitting
Dept.	:	Department of Basic Science.
Supervisors	1.	Haytham M Elhafez
	2.	Sohair Shehata
	3.	Manar H Abdel Satar
Degree	:	Master.
Year	:	2014.
Abstract	:	
<p>Background: Work related neck disorders are common problems especially between computer users. Many studies had investigated muscle changes, neck pain during long time sitting in officers, biomechanics of chair and office, but the influence on the head/neck posture has been insufficiently investigated. Purpose: To investigate the alteration of cervical curvature produced by sitting for long time in computer users. Material and methods: Fifty two adult computer users of both genders were participated in this study. Their age were ranged from 23 to 33 years, with no musculoskeletal disorders or current neck pain, neither received previous postural control training nor spinal surgery. Group "A": "25" participants using computer from 8 to 10 years, classified into: A1: 13 participants using computer from 8 to 12 hours daily. A2: 12 participants using computer from 4 to 5 hours daily. Group "B": "27" participants using computer from 2 to 4 years, classified into: B1: 14 participants using computer from 8 to 12 hours daily. B2: 13 participants using computer from 4 to 5 daily. Different cervical angles (Oc-C₂, C₁-C₂, C₂-C₇) and anterior head translation (AHT) were measured by using x rays, cervical active range of motion (CAROM) was measured by using OB goniometer. Results: One sample t test revealed that there were significant changes in cervical angles and AHT compared to the normal values, in A1; p value and the % of improvement were in the angle Oc-C₂ (0.0002, 100%), C₂-C₇ (0.0001, 51.4%), in AHT (0.0002, 116.7%). In the A2; Oc-C₇ (0.0008, 55%), C₂-C₇ (0.002, 44.8%), C₁-C₂ (0.03, 10.611%), in B1; Oc-C₂ (0.0004, 98.6%), C₂-C₇ (0.0002, 52%), AHT (0.0005, 160.1%), C₁-C₂ (0.04, 16.31%), in B2; Oc-C₂ (0.0001, 85.9%), C₂-C₇ (0.0003, 39.6%) respectively. Two way ANOVA showed that there were no statistical significant effect of hours and years on Oc-C₂, C₁-C₂ and C₂-C₇, there was statistical significant effect of hours on AHT. Pearson correlation indicated that there was a strong direct relation between (Oc-C₂&C₁-C₂), a weak direct relation between (Oc-C₂, C₁-C₂) and AHT, and a weak inverse relation between the (Oc-C₂, C₁-C₂) and C₂-C₇. Conclusion: Sitting for long times adversely affect the cervical angles and AHT in computer users. Increase the number of hours per day using computer increase AHT, but not affect the different cervical angle.</p>		
Key words	1.	Computer users
	2.	Prolonged sitting
	3.	Cervical vertebra
	4.	ROM
Classification number	:	616.73.GMA
Arabic Title Page	:	التغير في انحناء الفقرات العنقية في مستخدمي الكمبيوتر أثناء الجلوس لفترات طويلة
Library register number	:	3731-3732.

**ELECTRONIC GUIDE TO THESES APPROVED BY
DEPARTMENT OF BASIC SCIENCE
PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Marwa Yehia Abd El hamed.
Title	:	Criterion Related Validity of Six-Minute Walk Test In Obese Subject.
Dept.	:	Department of Basic Science.
Supervisors	1.	Mohsen M. El Sayyad
	2.	Mohamed Taher
Degree	:	Master.
Year	:	2014.
Abstract	:	
<p>Background:Obesity has become one of the main health problems in Egypt.It is not only has a long range impact on the health and well-being of persons of all ages, but the impact also extends to economic issues including rapid escalation of health care costs and the loss of productivity within the economy. These costs and related quality of life effects have led to a number of research ideas. Purpose: this study wasdesigned to investigate the criterion related validity of six minutes walk test (6MWT) in relation to cardiopulmonary exercise testing (CPX) in obese subject, to insure that 6MWT can be used instead ofCPX which is expensive and not available in all places.Methodology:this study was done in National Heart Institute in the period from September 2012 to December 2012 on Thirtyobese female With BMI between 30 to 45 kg/m²with a mean value of(31.866±2.36),age was ranged from 20 to 45 years old with a mean of (32.5±9.56) years old, The weight ranged from 70 to 109 kilogram (kg) with mean value (87.46667±9.65) kg,the height ranged from 150 to 183 centimeters (cm) with a mean value of (164.467±8.609) cm.and all subjects were undergoing both 6MWT and CPX. The distance walked in 6MWT were measured while VO₂ max were obtained from CPX.Results: The results of this study revealed thatthere was a significant positive correlation between the VO₂ max with mean value of (14.6±2.847) and 6MWDwith mean value of (425.5 ±69.39)r_s=0.63 and P-value was (0.014).Discussion:the six minute walk test (6MWT) may be considered as valid test to measure functional capacity in relation to cardiopulmonary exercise testing (CPX) in obese subject.</p>		
Key words	1.	six minute walk test
	2.	cardiopulmonary exercise testing
	3.	obesity
Classification number	:	616.398.AMC
Arabic Title Page	:	المصادقية بالمعايرة لاختبار ستة دقائق مشى في حالات السمنة.
Library register number	:	3727-3728.

**ELECTRONIC GUIDE TO THESES APPROVED BY
DEPARTMENT OF BASIC SCIENCE
PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Mohamed Fathi Abdul Galil.
Title	:	Electroacupuncture versus Transcutaneous electrical nerve stimulation on knee osteoarthritis.
Dept.	:	Department of Basic Science.
Supervisors	1.	Amir Mohamed Saleh.
	2.	Alaaddin Abdelhakim Balbaa.
	3.	Kadrya Hosny Battecha.
Degree	:	Master.
Year	:	2014.
Abstract	:	
<p>Background: Osteoarthritis of the knee is reported to be a major health problem worldwide. Purpose: to compare between the effect of electro-acupuncture and TENS on knee osteoarthritis. Materials and methods: thirty patients with knee osteoarthritis from both sexes (seventeen females and thirteen males) were involved, aged between 38-50 years and their BMI below 30 kg/m². They were divided into three equal groups. Patients in the first group received electro-acupuncture in addition to a traditional exercise program in the form of stretching and strengthening exercises for the affected lower limb. Patients in the second group received TENS in addition to stretching and strengthening exercises for the affected lower limb. Patients in the third group (control group) received a traditional exercise program. Treatment was done 3 times a week for 4 weeks. Pain level, range of motion and functional performance were measured before and after treatment using visual analogue scale, universal goniometer and WOMAC scale respectively. A pretest post-test control experimental group design was used. Results: there were significant differences within the three groups before and after treatment and between the three groups after treatment. There was significant improvement in the EA group pre and post treatment for Pain ($p < 0.0001$), ROM ($p < 0.03$) and the limitation of functional performance ($p < 0.001$). There was significant improvement in the TENS group pre and post treatment for Pain ($P < 0.0001$), ROM ($p < 0.003$) and the limitation of functional performance ($p < 0.0001$). There was significant improvement in the control group pre and post treatment for Pain ($p < 0.0001$), ROM ($p < 0.003$) and the limitation of functional performance ($p < 0.008$). Conclusion: electro-acupuncture proved to be beneficial and had upper hand over TENS in improving pain, range of motion and functional performance in patients with knee osteoarthritis.</p>		
Key words	1.	Electro
	2.	Acupuncture
	3.	knee osteoarthritis
	4.	knee pain
	5.	ROM
	6.	TENS
	7.	Osteoarthritis.
Classification number	:	616.7223.AME
Arabic Title Page	:	مقابلة الإبر الصينية الكهربائية مع التنبيه الكهربائي العصبي في حالات الالتهاب المفصلي للركبة.
Library register number	:	3777-3778.

**ELECTRONIC GUIDE TO THESES APPROVED BY
DEPARTMENT OF BASIC SCIENCE
PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Mohamed Mahmoud Gharib
Title	:	Post-Isometric Relaxation versus Progressive Pressure Release in Patients with Cervical Myofascial Pain
Dept.	:	Department of Basic Science.
Supervisors	1.	Amir Mohamed Saleh
	2.	Amir Nazih Wadee
Degree	:	Master.
Year	:	2014.
Abstract	:	<p>Background: Cervical myofascial pain is a common musculoskeletal disorder in the general population. Purpose: The purpose of this study is to investigate the effects of post-isometric relaxation (PIR) exercise and progressive pressure release (PPR) in patients with cervical myofascial pain and compare between both techniques. Design: A pretest post-test control experimental design. Subjects: Forty five male patients from Arab Contractors Hospital with cervical myofascial pain randomly assigned into three groups, 15 patients in each group. Method: Control Group A received traditional physical therapy rehabilitation program (Infrared, ultrasonic and exercise). Experimental Group B received traditional physical therapy program and post-isometric relaxation exercise, and Experimental Group C received traditional physical therapy program and progressive pressure release exercise. Pain pressure threshold (PPT) and neck disability index (NDI) measurements were taken pretest and after 4 weeks of treatment. Results: Paired t-test revealed that there were statistical significant differences in groups A,B and C. ANOVA test revealed that groups (B&C) showed more improvement than group A. Post hoc test revealed that there were statistical significant differences between groups A & B and groups A & C. Although there were no significant difference between groups B & C. Conclusions: Both post-isometric relaxation and progressive pressure release had an effect on patients with cervical myofascial pain but there were no significant differences between them.</p>
Key words	1.	Cervical myofascial pain
	2.	neck disability index
	3.	pressure pain threshold
	4.	post-isometric relaxation.
	5.	progressive pressure release
Classification number	:	
Arabic Title Page	:	الارتخاء ما بعد الانقباض الاستاتيكي مقابل انفراج الضغط المتقدم في مرضى الاضطراب العنقي.
Library register number	:	4019-4020.

**ELECTRONIC GUIDE TO THESES APPROVED BY
DEPARTMENT OF BASIC SCIENCE
PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Nancy Farah Milad
Title	:	Faradic stimulation versus Russian current on lower limb motor power in diabetic polyneuropathy
Dept.	:	Department of Basic Science.
Supervisors	1.	Neven Abd El-Latef
	2.	Soheir Shehata Rez Allah
Degree	:	Master.
Year	:	2014.
Abstract	:	
<p>Background: Diabetic Polyneuropathies are neuropathic disorders that are associated with diabetes mellitus. These conditions are thought to be chronic complication of diabetes and result from diabetic micro vascular injury. Purpose: to compare the effectiveness of faradic current versus Russian current in the treatment of lower extremity motor power dysfunction for diabetic polyneuropathic patients. Subjects: Thirty patients with type 2 diabetic mellitus for at least 5 years, their age ranged from 40–60 years, they are suffering from diabetic polyneuropathy with lower extremity motor power dysfunction detected by hand held dynamometer. Methods: Patients were distributed into three equal groups 10 per each. Patients in group (A) received their classic medication only. Patients in group (B) received faradic current (continuous mode of application, 2 sessions / week, for one month, 15-20 minutes / session) in addition to physical therapy voluntary exercise and the classic medication. Patients in group (C) received Russian current (continuous mode of application, 2 sessions / week, for one month, 15-20 minutes / session) in addition to physical therapy voluntary exercise and the classic medication. Muscle power of lower limb muscles was measured before and after finishing treatment by using hand held dynamometer. Results: Patients of group (B) and (C) (t-value 13.53 and 16.5, P- value 0.0001) respectively showed significant increase in lower limb muscle power while in group (A) showed no significant difference. Group (C) showed the highest improvement. Conclusion: Both faradic current and Russian current are effective in increasing lower limb muscle power in diabetic patients with polyneuropathy, in advance to Russian current.</p>		
Key words	1.	diabetic polyneuropathy
	2.	Russian current
	3.	faradic current
	4.	lower limb
Classification number	:	
Arabic Title Page	:	تأثير التثبيد الكهربائي بالمقارنة بالتيار الروسى في مرضى السكر المصابين باعتلال الأعصاب الطرفية
Library register number	:	3893-3894.

**ELECTRONIC GUIDE TO THESES APPROVED BY
DEPARTMENT OF BASIC SCIENCE
PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Omar Abdullah Hassan Mohammed
Title	:	Effect of aerobic exercises on vertical Chest diameter in abdominal Obese patients
Dept.	:	Department of Basic Science.
Supervisors	1.	Neveen Abd El Latif Abd El Raaof
	2.	Amira Hussin Draz
	3.	Nesreen Gharib El Nahass
Degree	:	Master.
Year	:	2014.
Abstract	:	<p>Background: In abdominal obesity the vertical chest diameter is decreased due to upward abdominal compression on the diaphragm where it can't descend completely down ward during contraction affecting respiratory function such a way that it has an impact on daily practices Purpose: To investigate the efficacy of aerobic exercises in the form of treadmill and bicycle on vertical chest diameter and compare the effect of each. Study design: A pre test post test two by two experimental groups design. Material and methods: 30 female volunteers with abdominal 88cm), aging from 20-40 years and body mass index ($> 30 \text{ kg/m}^2$) >obesity (Waist circumference participated in this study. They were assigned into two equal groups of 15 female; group A received treadmill program and group B received bicycle program. The study lasted for 12 weeks at a frequency of 3 sessions per week. Body mass index (kg/m^2), vertical chest diameter (cm) were measured before and after treatment program for both groups. Results: The results showed no significant change of body mass index in both groups A & B pre and post treatment. The results also showed, no significant change of vertical chest diameter in both groups A & B pre and post treatment and no significant change in vertical chest diameter between them pre and post treatment. Conclusion: Aerobic exercises in the form of treadmill and bicycle change vertical chest diameter in abdominal obese females non effectively.</p>
Key words	1.	Obesity
	2.	Aerobic exercises
	3.	Vertical chest diameter
	4.	abdominal Obese patients
Classification number	:	
Arabic Title Page	:	تأثير التمارين الهوائية على سعة القفص الصدري العمودية لدى الحالات الناتجة عن تراكم الدهون في منطقة البطن.
Library register number	:	3877-3878.

**ELECTRONIC GUIDE TO THESES APPROVED BY
DEPARTMENT OF BASIC SCIENCE
PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Osama Abdelrahman Mahmoud Abdelwahed
Title	:	Active warm up versus passive warm up in reducing delayed onset muscle soreness.
Dept.	:	Department of Basic Science.
Supervisors	1.	Mohamed Hussein El-gendy.
	2.	Azza Mohamed Attya.
Degree	:	Master.
Year	:	2014.
Abstract	:	
<p><u>Background:</u> Warm up activity is one of the most important modalities in reducing the severity of delayed onset muscle soreness (DOMS) following strenuous eccentric muscle contractions.</p> <p><u>purpose:</u> To investigate and compare between the effects of active warm up (AW) and passive warm up (PW) in reducing (DOMS).</p> <p><u>Design of the study:</u> pre-test post-test control study.</p> <p><u>Subjects:</u> Thirty healthy, males voluntarily participated in this study (main age 24.61 ± 0.31 y.). Subjects were randomly selected and assigned into one of the three equal groups, active warm up group (A), passive warm up (B) and control group (C).</p> <p><u>Materials and Methods:</u> Plasma creatine kinase (CK), Upper arm circumference (CIR) and perception of muscle soreness (SOR) were measured before, after 30 mints and at 2nd, 3rd and 4th days post eccentric exercises (EE). Each subject performed 50 biceps curl up (EE) with dumbbells to produce muscle damage. (AW) group received general and specific warm up exercises and (PW) group received 15 mints of hot packs and 7 mints of continuous Ultrasound on the elbow flexor of non-dominant upper extremity. There was no treatment in control group.</p> <p><u>Results:</u> When measuring CK, CIR and SOR, there were no significant difference among groups before, after 30 min and at 4th day after EE, where ($p > 0.05$). Recovery of DOMS was faster in AW group compared to group C on the days 2, and 3 ($p < 0.05$), recovery in PW group faster comparing to c group ($p < 0.05$), there were no significant differences between group A and B ($P > 0.05$).</p> <p><u>Conclusions:</u> There were significant effects of AW and PW in reducing (DOMS) regarding to control group but there were no significant differences between the effects of (AW) group and (PW) group in reducing (DOMS).</p>		
Key words	1.	Delayed onset muscle soreness (DOMS)
	2.	Eccentric Exercises (EE)
	3.	Plasma creatine kinase (CK)
	4.	Passive warm up
	5.	Active warm up
Classification number	:	616.7406.AOA
Pagination	:	X,260,4p.
Arabic Title Page	:	الإحماء النشط ضد الإحماء السلبي في تقليل الألم العضلي المتأخر.
Library register number	:	3663-3664.

**ELECTRONIC GUIDE TO THESES APPROVED BY
DEPARTMENT OF BASIC SCIENCE
PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Reham Mohamed Lotfy Soliman.
Title	:	Effect of electric dry cupping therapy on chronic mechanical neck dysfunction.
Dept.	:	Department of Basic Science.
Supervisors	1.	Wadida H. EL-Sayed
	2.	Mohamed Osama Hegazy
	3.	Khaled El-Sayed Ayad
Degree	:	Master.
Year	:	2014.
Abstract	:	
<p>Background: Mechanical neck dysfunction is a very common condition which is called non-specific neck pain. Its causes are mainly due to psychological or mechanical factors that may lead to pain, limitation in neck range of motions and disturbance in the ability of managing everyday functional activities. Purpose of the study: This study was conducted to study the effect of electric dry cupping therapy on pain intensity, related neck functional level and cervical range of motion in patients with chronic mechanical neck dysfunction. Method: Thirty patients suffering from chronic neck pain with cervical range of motion and functional level disturbance and diagnosed as chronic mechanical neck dysfunction were divided randomly into two equal groups. Group (A) treated with electric dry cupping therapy, hot packs, stretching exercises, isometric exercises and received advises about how to deal with their neck. Group (B) treated with the same program except the cupping. All patients were evaluated before and after 12 sessions using numerical pain rating scale, neck disability index and OB Goniometer to measure pain intensity, neck dysfunction level and degree of limitation of cervical range of motions respectively. Results: Group (A) showed statistically significant decrease in intensity of pain with reported percentage of improvement in related neck functional level and there was a statistically significant improvement in the degree of neck range of neck motions post-treatment. Group (B) there was no statistical significant difference in the intensity of pain with non significant improvement in related neck functional level and there was a statistical significant improvement in the degree of neck range of motions in all directions post-treatment. Differences between groups (A) and (B) showed that there was no statistical significant difference in the intensity of pain and in related neck functional level pre-treatment while there was a statistically significant difference post-treatment between both groups. Also, there was no statistical significant difference in the degree of neck range of motions in all directions pre-treatment while there was a statistically significant difference post-treatment in all directions except for flexion range of motions between both groups. Conclusion: The results of this study concluded that electric dry cupping therapy is effective in the management of chronic neck pain as a result of mechanical factors as well as improving related neck functional level and neck range of motion and can be considered as an alternative method for treating such cases.</p>		
Key words	1.	Electric dry cupping
	2.	Mechanical neck dysfunction
	3.	pain
	4.	Neck disability index
	5.	Neck range of motion
Classification number	:	617.371.SRE
Arabic Title Page	:	تأثير العلاج بالحجامة الجافة الكهربائية على خلل الرقبة الميكانيكي المزمن.
Library register number	:	3661-3662.

**ELECTRONIC GUIDE TO THESES APPROVED BY
DEPARTMENT OF BASIC SCIENCE
PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Salima Mohamed Ali Anaiba.
Title	:	Influence of Low Level Laser on Sympathetic Chain in Treating Carpal Tunnel Syndrome.
Dept.	:	Department of Basic Science.
Supervisors	1.	Awatif Mohammed Labib.
	2.	Essa Ragheb.
	3.	Soheir Shehata Samaan.
Degree	:	Master.
Year	:	2014.
Abstract	:	
<p>Background: Carpal tunnel syndrome (CTS) is an entrapment neuropathy of the median nerve at the wrist. It is the most common entrapment neuropathy in the upper extremity. Low-level laser Therapy (LLLT) is a relatively uncommon, non-invasive conservative treatment used for treating patients with CTS, in which non-thermal laser irradiation is applied to sites of pain. Purpose: To investigate the effect of LLLT on micro circulating cutaneous skin blood flow and median nerve conduction velocity, amplitude and distal latency in carpal tunnel syndrome patients. Subjects and Methods: Thirty patients with aged ranged from 30-45 years, mean age was 35,8 and standard deviation was $\pm 4,19$. were assigned randomly into two equal groups. Both groups received the selected physical therapy modalities which are (U/S- electrical stimulation – gliding ex- splinting-rest) on the palmer surface of the right hand. And; group (B) received low level laser therapy at the sympathetic chain stimulation therapy from cervical C5 to thoracic T1 (four points) each point 120sec, laser with wave length 830nm with 9J. All patients were evaluated two times, before and after the treatment. Electromyography (EMG) used to assess motor, sensory distal latency, amplitude and conduction velocity for the median nerve of both hands. Grip dynamometer was used for measuring the correlated muscle power. Laser Doppler flowmetry Periflux system was used to measure the micro circulating cutaneous skin blood flow. Each patient was received three sessions per week for a 6 weeks. Result: After treatment, all the outcome measurements had shown significant improvement in all groups as ($P < 0.05$). When the improved parameters were compared between all groups, there were significant differences after treatment by the LLLT group at the sympathetic chain stimulation therapy as ($P < 0.05$). Conclusion: LLLT group at the sympathetic chain stimulation therapy would be the most effective method to improve motor, sensory distal latency, amplitude and conduction velocity for the median nerve, muscle power and blood flow compared with the other control group.</p>		
Key words	1.	Carpal tunnel syndrome
	2.	low level laser Therapy
	3.	Electromyography.
	4.	Sympathetic Chain.
Classification number	:	616.87.ASI
Arabic Title Page	:	تأثير الليزر منخفض الشدة على السلسلة العصبية السمبثاوية في علاج متلازمة النفق الرسغي.
Library register number	:	3669-3670.

**ELECTRONIC GUIDE TO THESES APPROVED BY
DEPARTMENT OF BASIC SCIENCE
PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Samir Mohamed Hanafy
Title	:	Low level laser versus Radiofrequency on lipid profile in obese males
Dept.	:	Department of Basic Science.
Supervisors	1.	Maher Ahmed EL Keblawy
	2.	Ibrahim Naguib El Ebrashy
	3.	Rabab Ali Mohammed
Degree	:	Master.
Year	:	2014.
Abstract	:	
<p>Background: Obesity is a condition of abnormal of excessive fat accumulation in adipose tissue. Abnormal blood lipids associated with obesity have been firmly established as risk factor for the development of cardiovascular diseases. Purpose: This study was conducted to compare the effectiveness of low level laser therapy versus radiofrequency on lipid profile in obese males. Subjects: forty five patients aged from 35-45 years old assigned randomly into three equal groups: Group (A) consisted of 15 patients with mean age and BMI were 39.93 ± 3.47 years and 37.48 ± 1.34 kg/m². Group (B) consisted of 15 patients with mean age and BMI were 39.53 ± 2.82 years and 37.98 ± 1.24 kg/m². Group (C) consisted of 15 patients with mean age and BMI were 39.26 ± 2.96 years and 37.89 ± 1.42 kg/m². Methods: Group (A) received low level laser therapy (632.8nm-16J/cm²) in addition to aerobic exercises (walking on treadmill for 30 min) twice weekly for eight weeks and same medical drugs treatment. Group (B) received radiofrequency in addition to aerobic exercises (walking on treadmill for 30 min) once weekly for eight weeks and same medical drugs. Group (C) received aerobic exercises (walking on treadmill for 30 min) three times weekly for eight weeks and same medical drugs. Patients in all groups were assessed using blood sample before treatment then after treatment after 8 weeks to measure fasting serum lipid profile. Results: Showed that Fasting serum lipid profile (TC, TG, HDL, LDL) significantly improved using low level laser therapy than using radiofrequency in obese males as it was indicated by improvements in (TC, TG, HDL, LDL) in the group (A) than in group (B). Conclusion: low level laser therapy and aerobic exercise training were more effective than radiofrequency and aerobic exercise training in management of high lipid profile in obese males.</p>		
Key words	1.	Lipid profile
	2.	Low-level laser therapy
	3.	Radiofrequency
	4.	Lasers.
	5.	obese males.
Classification number	:	
Arabic Title Page	:	العلاج بالليزر منخفض الشدة مقابل موجات الراديو الترددية علي صورة دهون الدم بالرجال البدناء.
Library register number	:	4051-4052.

**ELECTRONIC GUIDE TO THESES APPROVED BY
DEPARTMENT OF BASIC SCIENCE
PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Tamer Thabet Mohammed Ali
Title	:	Effect of Phonophoresis on Upper Trapezius Latent Myofascial Trigger Points.
Dept.	:	Department of Basic Science.
Supervisors	1.	Mohammed Hussein El-Gendy
	2.	Azza Mohammed Atia
Degree	:	Master.
Year	:	2014.
Abstract	:	
<p>Background: myofascial Trigger points are a common cause of severe pain in chiropractic practice. While trigger points may be found in any skeletal muscle the majority are found in the upper trapezius. Few studies have investigated Phonophoresis treatments for upper trapezius trigger points. The purpose: of the study was to investigate the effect of Phonophoresis on upper trapezius Latent myofascial trigger points. Methodology: thirty patients (females and males) who had upper trapezius Latent Myofascial Trigger Points, their age ranges from 30 to 50 years were randomly selected. Design of study: the patients were randomly assigned into two equal groups ; First, experimental group: This group consisted of fifteen patients received (Phonophoresis using continuous mode for 5 min, with 1 MHz and 1.5 W/cm²) and traditional physical therapy program in the form of (Infrared radiation, ischaemic compression and stretching exercises) for 12 session over four weeks period. Second, control group: This group consisted of fifteen patients were received traditional physical therapy program for 12 sessions over four week's period. Pain severity, pain presser threshold (PPT), neck functional disability (NFD) and cervical range of motion (ROM) were measured by using visual analog scale (VAS), pain pressure algometer (PPA), neck functional disability index (NFDI) and Bubble inclinometer (BI) respectively before the treatment and after one month of the treatment. The results: Within groups comparison the values of pain severity, pain presser threshold (PPT), neck functional disability (NFD) and cervical range of motion (ROM) in the "pre" and "post" tests indicating a significant improvements. Between groups there was statistically significant difference in the value of pain presser threshold (PPT), but no statistically significant difference between groups in the values of visual analog scale (VAS), neck functional disability index (NFDI) and cervical range of motion (ROM). Conclusion: Phonophoresis when added to the traditional physical therapy program of treatment in management of (LMTrPs) showed significant improvement in the values of pain severity, pain presser threshold (PPT), cervical range of motion (ROM) and neck functional disability (NFD) although there was no significant difference between the traditional treatment only and when adding Phonophoresis, but there was an increment in the values of measurement parameters when using phonophoresis although it wasn't statistically significant. So it was advisable to add Phonophoresis to the traditional program in management of (LMTrPs).</p>		
Key words	1.	Latent Myofascial Trigger Points
	2.	Phonophoresis
	3.	Physical Therapy
	4.	Upper Trapezius
Classification number	:	615.892.ATE
Arabic Title Page	:	تأثير ادخال الدواء عن طريق الموجات فوق الصوتية على النقاط الكامنة بالنسيج العضلي الضام في الجزء العلوى من العضلة شبة المنحرفة.
Library register number	:	3643-3644.

**ELECTRONIC GUIDE TO THESES APPROVED BY
DEPARTMENT OF BASIC SCIENCE
PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Walaa Ali Ibrahim Abu Taleb
Title	:	Effect of quantitative ischemic compression on myofascial trigger points of upper trapezius muscle
Dept.	:	Department of Basic Science.
Supervisors	1.	Marzouk Abdell-Fattah Ellethy
	2.	Amir Mohamed Saleh
	3.	Aliaa Mohammed Rehan Youssef
Degree	:	Master.
Year	:	2014.
Abstract	:	
<p>Background: A considerable variation exists in clinical practice and across research studies with regards to the amount of pressure applied during ischemic compression. Therefore, an objective device, such as the algometer, may be effective in applying consistent pressure. Such device would be expected to establish a solid ground for measuring the intensity of pressure perceived by the patient and also help therapists avoiding work related injuries associated with manual techniques. Purpose: The purpose of this study was to investigate the immediate effect of quantitative compression technique using Algometer; as a novel and a quantitative trigger point therapy method. Methods: Forty Five volunteers with active trigger points of upper trapezius were recruited for a pretest- posttest control group design study, and were randomly assigned into 3 groups: group (A) received quantitative ischemic compression group plus sham ultrasound (n =15), group (B) received manual ischemic compression group plus sham ultrasound (n =15), and group (C) received sham ultrasound group (n =15). All participants were assessed before and 5-10 minutes after a single treatment session with regards to Basal Electrical Activity (BEA) of the upper trapezius via surface electromyography, Pressure Pain Threshold (PPT) via algometer, and active and passive range of contralateral cervical side bending via Cervical Range of Motion instrument (CROM). Results: For group (A), BEA significantly decreased whereas PPT, active and passive ROM were significantly increased. For group (B), there was a significant decrease in BEA and a significant increase in side bending passive range, whereas other variables did not change. For the control group (C), only active side bending range was improved whereas the rest of tested variables remained the same. Alpha level was set at (p<0.05). Conclusions: Quantitative ischemic compression by algometer may be a better technique than manual ischemic compression in treating myofascial trigger points of upper trapezius. Quantitative method guides the therapist with an objective feedback for the applied treatment and patient's improvement.</p>		
Key words	1.	Algometer.
	2.	Ischemic Compression
	3.	myofascial Trigger Points
	4.	upper trapezius muscle.
	5.	Electromyography
Classification number	:	
Arabic Title Page	:	تأثير الضغط الإقفاري الكمي على نقاط الزناد الليفي العضلي للعضلة الشبيهة منحرفة العليا.
Library register number	:	3987-3988.

**ELECTRONIC GUIDE TO THESES APPROVED BY
DEPARTMENT OF BASIC SCIENCE
PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Walaa Mohamed Sayed
Title	:	Effects of Aerobic Exercise on Fatigue, Insomnia and Anemia in Patients with Breast Cancer after Chemotherapy
Dept.	:	Department of Basic Science.
Supervisors	1.	Amir Mohamed Saleh
	2.	Amr Abo Gazia
	3.	Mostafa Abd El Tawab
Degree	:	Master.
Year	:	2014.
Abstract	:	
<p>Background: Fatigue, insomnia and anemia are the major problems affecting the breast cancer patients after chemotherapy. The Purpose of this study was to investigate the effectiveness of aerobic exercise program on fatigue, insomnia and anemia on cancer patients after chemotherapy. Design of the study: A pre-test and post-test randomized control group design was used. Thirty female patients who had cancer and complaining from fatigue, insomnia and anemia and complete the cycle of chemotherapy, were participated in this study for the treatment period of eight weeks. Subjects: The patients were equally and randomly divided into two groups. Control group (A) were treated with chemotherapy only while patients in the study group (B) had chemotherapy in addition to aerobic exercise sessions three times per week for eight weeks. Fatigue, insomnia and anemia were recorded using healthy, wellness and quality of life Questionnaire; sleep Med questionnaire and hemoglobin level respectively. The measurements were taken at the beginning then after 4 weeks (post1) and after 8 weeks (post2). Results: Showed that there were statistical significant improvement in the functional outcomes in breast cancer patients receiving chemotherapy in both groups as demonstrated by the significant improvement noticed in quality of life, insomnia and level of Hemoglobin in patients assessed in the study group more than the control group. Conclusion: The aerobic exercise with medications can be used to decrease fatigue, insomnia and anemia in patients with breast cancer.</p>		
Key words	1.	Breast Cancer
	2.	Chemotherapy
	3.	Fatigue
	4.	Insomnia
	5.	Anemia.
	6.	Aerobic Exercises
Classification number	:	
Arabic Title Page	:	إستجابة الأطفال الرضع تحت تأثير التنفس الصناعي للعلاج الطبيعي التنفسي قبل وبعد جراحات القلب المغلق.
Library register number	:	3885-3886.