

## Department of Basic Science

Master Degree  
2009

Author	:	Abeer Abd EL-Fttah Ali Khaleel.
Title	:	Effect of Gender on Thoracic and Lumbar Vertebral Curvatures and Flexibility in Normal Subjects.
Dept.	:	Department of Basic Science.
Supervisors	1.	Ragia Mohamed Kamel.
	2.	Neveen Abd El Latif Abd El Raouf.
Degree	:	Master.
Year	:	2009.
Abstract	:	<p><b>Background:</b> Sagittal spinal curves and flexibility present a wide range for normal individuals within normal limits. <b>Purpose:</b> To investigate the effect of gender on thoracic and lumbar vertebral curvatures and flexibility in normal subjects. <b>Subjects:</b> 40 normal subjects from both genders participated in this study and assigned into two groups: Group (A) included 20 normal males with mean age of (21.45±2.15) years, height (177.3±7.56) cm, weight (75.95±7.81) kg, and BMI (23.56±1.038) kg/m<sup>2</sup> and Group (B) included 20 normal females with mean age of (21.65±2.48) years, height (159.9±6.86) cm, weight (60.22±8.084) kg, , and BMI (23.45±1.308) kg/m<sup>2</sup>. <b>Methods:</b> Assessment of thoracic and lumbar curvatures using the Formetric system was used to measure the lordotic angle and kyphotic angle, while the new noninvasive electronic device Spinal mouse was used to measure the thoracic and lumbar spine range of motion. <b>Results:</b> There were significant differences in the thoracic and lumbar curvatures between both genders P= 0.0132, 0.0039 respectively, and there was a significant difference in the lumbar flexibility between both genders P= 0.361 while there was no significant difference in thoracic flexibility between both genders P= 0.5352. <b>Conclusion:</b> This study concluded that normal females had higher thoracic and lumbar curvatures than normal males, also normal females had higher lumbar spine ROM than normal males while there was no significant difference between normal females had males regarding thoracic spine ROM.</p>
Key words	1.	Thoracic curvature.
	2.	lumbar curvature.
	3.	thoracic flexibility.
	4.	lumbar flexibility.
	5.	lordotic angle.
	6.	kyphotic angle.
Arabic Title Page	:	تأثير نوع الجنس على انحناءات ومرونة الفقرات الصدرية والقطنية في الاشخاص الطبيعيين.
Library register number	:	1921-1922.

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

<b>Author</b>	:	Ahmed Abd El Hady Gad.
<b>Title</b>	:	Pulsed Magnetic Field Versus low level laser therapy in treatment of knee OA.
<b>Dept.</b>	:	Department of Basic Science.
<b>Supervisors</b>	1.	Fatma Sedek Amin.
	2.	Aliaa Attiah Diab.
	3.	Khaled Abd EL Salam Shohayeb.
<b>Degree</b>	:	Master.
<b>Year</b>	:	2009.
<b>Abstract</b>	:	
<p><b>Background:</b> knee osteoarthritis affect large proportion of population, the prevalence of osteoarthritis is increasing with aging in industrial countries, osteoarthritis which was recognized as an important source of disability and handicap which lead to considerable socioeconomic costs due to medical and surgical interventions and frequent work absence. <b>Purposes:</b> To investigate and compare the efficacy of pulsed magnetic field and low level laser therapy in treatment of knee osteoarthritis. <b>Study Design:</b> A pre test post test control group design. <b>Materials and methods:</b> Thirty patients with moderate to sever osteoarthritis from both sexes were involved, aged between 40-60 years old. The patients were divided into three equal groups, ten patients each. Patients in the first group (control group) received an exercises program. Patients in the second group received pulsed magnetic field and exercises program. Patients in the third group received low level laser therapy and exercises program. Treatment was done 3 times a week for 4 weeks. Range of motion, pain level and functional performance were measured before and after treatment. <b>Results:</b> There were significant differences within the three groups before and after treatment and between the three groups after treatment as knee range of motion increased, pain level decreased and functional performance improved. <b>Conclusion:</b> Pulsed magnetic field proved to be more beneficial than low level laser therapy in improving range of motion, functional performance and knee pain in patients with moderate to sever knee osteoarthritis.</p>		
<b>Key words</b>	1.	knee Osteoarthritis.
	2.	pulsed magnetic field.
	3.	low level laser therapy.
<b>Arabic Title Page</b>	:	المجال المغناطيسي المتقطع مقابل الليزر منخفض الشدة في علاج الالتهاب العظمي المفصلي للركبة.
<b>Library register number</b>	:	1893-1894.

**ELECTRONIC GUIDE TO THESES APPROVED BY  
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PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Alaa Abo-Srie Amin.
Title	:	Effect of declophenac phonophoresis versus low level laser therapy on osteoarthritis knee.
Dept.	:	Department of Basic Science.
Supervisors	1.	Mohamed El-Gendy.
	2.	Azza Mohamed Ateya.
	3.	Mohamed El Sayed Shabana.
Degree	:	Master.
Year	:	2009.
Abstract	:	
<p><b>Background:</b> Osteoarthritis of the knee is reported to be a major health problem worldwide. <b>Purposes:</b> To compare between the declophenac phonophoresis and low level laser therapy in the treatment of knee osteoarthritis. <b>Study Design:</b> A pre test post test design. <b>Materials and methods:</b> thirty patients with knee osteoarthritis from both genders were selected, aged between 40– 60 years. They were divided into two equal groups, fifteen patients each. Patients in the first group received declophenac phonophoresis in addition to traditional exercise program in the form of stretching and strengthening exercises. Patients in the second group received laser therapy in addition to the same traditional exercise program. The program was done 3 times a week for 4 weeks. Pain level, Range of motion of the knee joint and functional performance was measured before and after treatment. <b>Results:</b> there were significant differences within the two groups before and after treatment and between the two groups after treatment in Pain, range of motion and functional disability. <b>Conclusion:</b> declophenac phonophoresis was proved to be more beneficial in reducing knee pain, improving range of motion and reducing of functional disability in patients with knee osteoarthritis.</p>		
Key words	1.	osteoarthritis.
	2.	declophenac phonophoresis.
	3.	lasers.
	4.	electrogoniometer.
Arabic Title Page	:	تأثير مادة الديكلوفيناك المدخلة بواسطة الموجات فوق الصوتية في مقابل الليزر منخفض الشدة على الالتهاب العظمي المفصلي للركبة.
<b>Library register number</b>	:	<b>1947-1948.</b>

**ELECTRONIC GUIDE TO THESES APPROVED BY  
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PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

Author	:	Amaly Refat El-Mahdy Herz.
Title	:	Laser versus diclofenac phonophoresis in treatment of plantar facilities pain.
Dept.	:	Department of Basic Science.
Supervisors	1.	Samy Abd El-Samad.
	2.	Maher El-Keblawy.
	3.	Yasser El-Meligy.
Degree	:	Master.
Year	:	2009.
Abstract	:	
<p>Thirty patients with chronic plantar facilities from both sexes were involved, aged between 30-50 years. They were divided into two equal groups, 15 patients each, patients in the first group received laser therapy in addition to stretching exercises, patients in the second group received diclofenac phonophoresis in addition to stretching exercise, training was done three times a week for 4 weeks, pain level and foot function were measured before and after treatment. There was significant difference within both group in decreasing pain and improve function of the foot pre and post treatment and there were no significant difference between treatment groups in decreasing pain and improve function of the foot Laser and diclofenac phonophoresis proved to be beneficial in improving pain and the function of the foot.</p>		
Key words	1.	Lasers.
	2.	Diclofenac Phonophoresis.
	3.	Plantar Falsities.
Arabic Title Page	:	العلاج بالليزر مقارنة بمادة الديكلوفيناك المدخلة بواسطة الموجات فوق الصوتية في علاج الالم الناشئ عن التهاب اللقافة الأخصوية بالقدم.
Library register number	:	1929-1930.

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

<b>Author</b>	:	Noha Soliman Abd EL Hafeez.
<b>Title</b>	:	Effect of local laser versus laser acupuncture in treatment of shoulder impingement syndrome.
<b>Dept.</b>	:	Department of Basic Science.
<b>Supervisors</b>	1.	Maher El Keblawy.
	2.	Samir EL Sayed Selim.
	3.	Abeer Abd EL Rahman.
<b>Degree</b>	:	Master.
<b>Year</b>	:	2009.
<b>Abstract</b>	:	
<p><b>Background:</b> Shoulder impingement syndrome had a very high occurrence. <b>Purpose:</b> compare between local laser and laser acupuncture in the treatment of shoulder impingement. <b>Methodology:</b> Thirty patients aged between 25 to 40 years were assigned into three equal groups. Group (A) received laser over acupuncture points 3J/ point, group (B) received laser over trigger points 3J/point and group (C) received sham laser. The measurements are VAS, SPADI, and electrogoniometer. <b>Result:</b> laser acupuncture was more effective than local laser in treatment of shoulder impingement syndrome. <b>Conclusion:</b> Using laser acupuncture is effective treatment for shoulder impingement syndrome.</p>		
<b>Key words</b>	1.	Shoulder impingement.
	2.	Lasers.
	3.	Acupuncture.
<b>Arabic Title Page</b>	:	تأثير الليزر الموضعي مقابل الليزر على نقاط الوخز بالإبر الصينية في علاج متلازمة إنحشار الكتف.
<b>Library register number</b>	:	1941-1942.

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

<b>Author</b>	:	<b>Rania Reda Mohamed Abdou.</b>
<b>Title</b>	:	<b>Validation of Twin Axial Electrogoniometer in angular measurement.</b>
<b>Dept.</b>	:	<b>Department of Basic Science.</b>
<b>Supervisors</b>	1.	<b>Mohsen M. El Sayyad.</b>
	2.	<b>Amal Fawzy.</b>
	3.	<b>Neven Abdel Latef.</b>
<b>Degree</b>	:	<b>Master.</b>
<b>Year</b>	:	<b>2009.</b>
<b>Abstract</b>	:	
<p><b>Background:</b> Range of Motion measurement in Physical Therapy is very important to allow recording the state of the joint motion. <b>Purpose:</b> this study investigates the validity of a twin axial electrogoniometer in measuring joint angles (hip and knee). <b>Methodology:</b> Thirty normal subjects were assigned into one group, all the subjects were measured by the use of the electrogoniometer and the 3 Dimensional Motion Analysis system to measure Hip and Knee angles during sit to stand movement. <b>Results:</b> The study revealed that there was no statistical significant difference level in hip and knee joint angles between the electrogoniometer and the 3 Dimensional Motion Analysis systems during sit to stand movement. <b>Discussion:</b> The electrogoniometer may be considered as valid instrument in measuring joint Range of Motion during functional activity of daily living.</p>		
<b>Key words</b>	1.	<b>Sit to stand.</b>
	2.	<b>Range of motion.</b>
	3.	<b>Three dimensional motion analyses.</b>
	4.	<b>Electrogoniometer.</b>
<b>Arabic Title Page</b>	:	<b>مدى مصداقية الجهاز الكهربائي ثنائي الابعاد لقياس حركة المفاصل.</b>
<b>Library register number</b>	:	<b>1919-1920.</b>

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

Author	:	Salwa Mostafa Atteya.
Title	:	Electro acupuncture versus ultrasound in knee osteoarthritis.
Dept.	:	Department of Basic Science.
Supervisors	1.	Maher El Keblawy.
	2.	Amir Saleh.
	3.	Yasser El Meligy.
Degree	:	Master.
Year	:	2009.
Abstract	:	
<p><b>Background:</b> Osteoarthritis of the knee is reported to be a major health problem worldwide. <b>Purpose:</b> to compare between electro acupuncture and ultrasound efficacy in knee osteoarthritis. <b>Study Design:</b> A pretest posttest control experimental group design. <b>Materials and methods:</b> thirty patients with knee osteoarthritis from both sexes were involved, aged between 38-50 years. They were divided into three equal groups, ten patients each. Patients in the first group received electro acupuncture in addition to a traditional exercise program in the form of stretching and strengthening exercises. Patients in the second group received therapeutic ultrasound in addition to stretching and strengthening exercises. Patients in the third group (control group) received a traditional exercise program. Treatment was done 3 times a week for 4 weeks. Range of motion, pain level and functional performance were measured before and after treatment. <b>Results:</b> there were significant differences within the three groups before and after treatment and between the three groups after treatment in range of motion (<math>P&lt;0.0001</math>), pain (<math>P&lt;0.0009</math>) and functional performance (<math>P&lt;0.001</math>) <b>Conclusion:</b> electro acupuncture proved to be beneficial and had the upper hand over ultrasound in improving range of motion, functional performance and perceived knee pain in patients with knee osteoarthritis.</p>		
Key words	1.	osteoarthritis.
	2.	electroacupuncture.
	3.	ultrasound.
Arabic Title Page	:	مقابلة الإبر الصينية الكهربائية مع الموجات فوق الصوتية في الالتهاب المفصلي العظمي للركبة.
<b>Library register number</b>	:	<b>1973-1974.</b>