

## Department of Basic Science

Master Degree  
2005

<b>Author</b>	:	Amr Saad - Eldeen Mohamed Shalaby.
<b>Title</b>	:	Diagnostic specificity of two electro diagnostic tests in carpal tunnel syndrome.
<b>Dept.</b>	:	Department of Basic Science.
<b>Supervisors</b>	1.	Soaad Mahmoud Mohamed.
	2.	Omaima Mohamed Ali Kattabei.
	3.	Amal Fawzy Ahmed.
<b>Degree</b>	:	Master.
<b>Year</b>	:	2005.
<b>Abstract</b>	:	<p><b>Background:</b> Carpal Tunnel Syndrome (CTS) is a widespread troublesome syndrome that results in pain and paraesthesia in median nerve distributions and weakness in thenar muscles. Nerve Conduction Studies (NCS) are used to confirm CTS diagnosis but up till now about 25 % of cases remain undiagnosed by the conventional NCS. Thus, it requires more sensitive and specific test to be applied. <i>The purpose of the study</i> to determine sensitivity and specificity of the Median-to-Ulnar Sensory Nerve Action Potential (MUSNAP) ratio and Median-to-Ulnar Motor Latency Difference (MUMLD) test in patients with CTS as compared to that of the conventional median NCS. <i>Materials and Methods:</i> 30 wrists of 17 healthy subjects were recruited in the normal group with mean age of <math>28.4 \pm 7.7</math> years. 30 wrists of 18 CTS patients were recruited into the patient group with mean age of <math>34.03 \pm 11.3</math> years. A TOENNIES neuroscreen plus system was used for assessment. <i>Results:</i> for the normal group, the Median Motor Distal Latency (MMDL) was <math>3.4 \pm 0.3</math> msec., Median Sensory Distal Latency (MSDL) was <math>2.8 \pm 0.2</math> msec., MUMLD was <math>0.23 \pm 0.08</math> msec., and the MUSNAP ratio was <math>1.16 \pm 0.7</math>. For the patient group MMDL was <math>4.4 \pm 1.02</math> msec., MSDL was <math>3.5 \pm 0.8</math> msec., MUMLD was <math>1.4 \pm 0.9</math> msec., and MUSNAP ratio was <math>1.2 \pm 1.02</math>. The sensitivity for the tests was 63.33% for the MMDL, 73.33% for the MSDL, 13.33% for the MUSNAP ratio test, while the highest sensitivity was 96.66% for the MUMLD test. The specificity for the examined tests was 90% for the MMDL, MSDL, and MUSNAP ratio and on the other hand it was 100% for the MUMLD test. <i>Conclusion:</i> it is concluded that 1) As compared to the conventional NCS and MUSNAP ratio the MUMLD test was the most sensitive and specific test in CTS cases, 2) The MUSNAP ratio test has shown the high degree of specificity and lower sensitivity and 3) Lower cutoff points revealed higher sensitivity and lower specificity in MMDL and MSDL.</p>
<b>Key words</b>	1.	Diagnostic specificity.
	2.	Carpal tunnel syndrome.
	3.	Electro diagnosis.
<b>Arabic Title Page</b>	:	التخصصية التشخيصية لإثنين من الإختبارات الكهربيه التشخيصيه على حالات إختناق العصب الأوسط عند الرسغ.
<b>Library register number</b>	:	1197-1198.

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

Author	:	Ayman Hussein El-Khatib.
Title	:	Influence of endurance training on myocardial oxidative stress.
Dept.	:	Department of Basic Science.
Supervisors	1.	Sami Abd El-Samad Nassef.
	2.	Layla Rached.
Degree	:	Master.
Year	:	2005.
Abstract	:	
<p><b>Aim:</b> The purpose of this study was to determine the effects of endurance treadmill-training program on the levels of oxidative stress markers in rat myocardium. <b>Methods:</b> Thirty rats (15 males and 15 females), the mean age of all rats was 6 weeks old and the mean weight was 150(±10g), were participated in this study and they were chosen randomly. They are divided into 3 groups, control group (N= 10 rats), group (I) (N=10 rats) and group (II) (N=10 rats). Group (I) received treadmill exercises for 9 minutes duration at velocity of 25m/minute, 3 times per week for 4 weeks and group (II) received treadmill exercises for 9 minutes duration at velocity of 25m/minute, 6 times per week for 4 weeks. <b>Results:</b> The rats of all groups were sacrificed; their heart tissues were homogenized in phosphate buffer saline and then were centrifuged to obtain the fluid through which the malondialdehyde (MDA) and the glutathione peroxidase (GPX) were measured. One-way ANOVA showed a significant difference between the three groups of both malondialdehyde and glutathione peroxidase. <b>Conclusion:</b> These results demonstrate that endurance training induced decline in lipid peroxidation such as malondialdehyde and obvious increases in glutathione peroxidase concentration in rat myocardium.</p>		
Key words	1.	Endurance training.
	2.	oxidative stress.
	3.	lipid per oxidation.
	4.	glutathione peroxidase.
	5.	myocardial oxidative stress.
Arabic Title Page	:	تأثير تدريبات الإحتمال على إجهاد عضلة القلب نتيجة التأكسد.
Library register number	:	1165-1166.

**ELECTRONIC GUIDE TO THESES APPROVED BY  
DEPARTMENT OF BASIC SCIENCE  
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<b>Author</b>	:	Manal Mohamed Ali El Dessouki.
<b>Title</b>	:	Laser acupuncture versus direct laser in management of plantar fasciitis pain.
<b>Dept.</b>	:	Department of Basic Science.
<b>Supervisors</b>	1.	Awatef Mohamed Labib.
	2.	Samy Abd El Samad.
	3.	Ragia Mohamed Kame.
<b>Degree</b>	:	Master.
<b>Year</b>	:	2005.
<b>Abstract</b>	:	
<p>The purpose of this study was to investigate the effect of low intensity LASER in chronic planar fasciitis pain in middle age females. Gallium Aluminum Arsenide Infra Red laser was used with power of 10mw and wavelength of 780nm. Twelve patients were divided into two groups, their ages ranged between (30-40) years with a mean of (33.8). Group I included 7 females irradiated with laser over most painful and tender point on the plantar surface of the heel, group II included 5 females irradiated with laser over three traditional acupuncture points (Taixi K. 3, Kunlun UB. 60, Sanyinjiao sp. 6). Five out of the seven females in group I complained of bilateral fasciitis, and four out of group II complained of bilateral fasciitis. Statistical results showed significant pain decrease on visual and modified analogue scales in both groups. there was significant improvement after six sessions where ( <math>p &lt; 0.05</math>), also there was significant improvement after twelve sessions where ( <math>p &lt; 0.05</math>). Statistical results didn't show significant difference between the two groups where ( <math>p &gt; 0.05</math>) to justify the most effective method of laser applications for such conditions.</p>		
<b>Key words</b>	1.	Plantar fasciitis.
	2.	Lasers
	3.	chronic pain..
	4.	Acupuncture.
<b>Arabic Title Page</b>	:	تأثير الليزر على نقاط الوخز بالإبر الصينية مقابل الليزر المباشر على نقاط الألم في علاج اللقافة الأخمصية.
<b>Library register number</b>	:	1179-1180.

**ELECTRONIC GUIDE TO THESES APPROVED BY  
DEPARTMENT OF BASIC SCIENCE  
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Author	:	Nasser Mohamed Aneis.
Title	:	Relation of galvanic vestibular stimulation evoked response and balance urements in hemiparetic patients.
Dept.	:	Department of Basic Science.
Supervisors	1.	Wadida Hassan Abd EI-Kader.
	2.	Maher Ahmed EI-Keblawy.
	3.	Amal Fawzi Ahmed.
Degree	:	Master.
Year	:	2005.
Abstract	:	
<p>The purpose of this study was to investigate the correlation of . Galvanic Vestibular Stimulation (GVS) evoked response and balance measurements in hemiparetic patients with disequilibrium. <b>Subjects:</b> <u>Fourty</u> Subjects from both sexes with age ranged from 40 to 60 years old were participated in this study. They were assigned into two groups; the study group consisted of twenty hemiparetic patients with mean age of (50.35±12) years, mean height of (169±0.47) em, mean weight of (80.2±0.55)kg and mean duration of illness (13.55±0.83) months, while the control group consisted of twenty normal subjects with mean age of (50.5±1.14) years, mean height of (169.4±0.662)cm, and mean weight of (78.85±.59) kg. <b>Methods:</b> Changes in H-reflex amplitude and latency following galvanic vestibular stimulation was measured and then correlated with the balance system scores using the Biodex stability system [stability index (static balance) &amp; dynamic limit of stability]. <b>Results:</b> The results of the current study revealed highly significant differences between the two groups in the amplitude of the conditioned H-reflex compared with that of the test H-reflex (P = 0.0001). Conversely, the difference between the two groups in latency was numerical rather than statistical. The percentage of change in H-reflex amplitude of the control group was statistically higher than that of the study group (P &lt; 0.0001). However, the difference between the two groups in the percentage of change in H-reflex latency was non significant. On the other hand there was a highly significant direct proportional correlation between the percentage of change in H-reflex amplitude and the dynamic limit of stability in the study group (P = 0.0001). <b>Discussion and Conclusion:</b> The finding revealed that the "disturbed balance" after stroke might be related to an impairment of the corticovestibular modulation of the vestibular function. The results of the present study suggested that GVS-evoked response could provide a unique and valuable diagnostic information regarding the vestibular function after stroke.</p>		
Key words	1.	Disequilibrium.
	2.	Hemiparesis.
	3.	H-reflex.
	4.	Galvanic.
	5.	Vestibular.
	6.	Stimulation.
Arabic Title Page	:	العلاقة بين التنبية الجلفاني المستحسن لدهليز الاذن وقياسات الاتزان لمرضى الخزل الجانبي.
<b>Library register number</b>	:	<b>1241-1242.</b>