

**ELECTRONIC GUIDE TO THESES APPROVED BY PHYSICAL THERAPY  
DEPARTMENT OF SURGERY**

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

**Physical Therapy Department of Surgery**  
**Doctoral Degree 2011**

<b>Author</b>	:	<b>Hisham Galal Mahran.</b>
<b>Title</b>	:	<b>Effect of neuromuscular electrical stimulation and pulsed electromagnetic field on motor conduction velocity of the neuropathic median nerve post burn.</b>
<b>Dept.</b>	:	<b>Physical Therapy Department for Surgery.</b>
<b>Supervisors</b>	<b>1.</b>	<b>Adel Abdel Hamid Nossier.</b>
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<b>Degree</b>	:	<b>Doctoral.</b>
<b>Year</b>	:	<b>2011.</b>
<b>Abstract</b>	:	
<p><b>Purpose:</b> to determine effects of neuromuscular electrical stimulation and pulse electromagnetic field on motor conduction velocity of the neuropathic median nerve post burn. <b>Measurement Method:</b> (Measurement of the motor conduction velocity of the median nerve); 45 male and female patients with post burn neuropathic median nerve were randomly and equally divided into three groups. Group (A) received the neuromuscular electrical stimulation plus the traditional physical therapy Group (B) received the pulsed electromagnetic field plus the traditional physical therapy, while group (C) received only the traditional physical therapy, duration of treatment was 20 minutes, daily for 3 weeks as a total period of treatment. <b>Results:</b> Result showed that both the neuromuscular electrical stimulation and pulsed electromagnetic field were effective in increasing the motor conduction velocity of the median nerve, but neuromuscular electrical stimulation was more beneficial than the pulsed electromagnetic field. <b>Conclusion and Discussion:</b> Both of the neuromuscular electrical stimulation and the pulsed electromagnetic field are advantageous in cases of neuropathic median nerve post burn via their depressor effects in decreasing the dominant sympathetic tone in burned patients, decreasing the reflex muscle spasm, increasing the peripheral circulation, decreasing oedema and inflammation, relieving the compressive ischaemic pain and improving the nerve functions. But the neuromuscular electrical stimulation is more fruitful than the pulsed electromagnetic field.</p>		
<b>Key words</b>	<b>1.</b>	<b>Neuromuscular electrical stimulation.</b>
	<b>2.</b>	<b>Burn.</b>
	<b>3.</b>	<b>electrodiagnosis.</b>
	<b>4.</b>	<b>Neuropathic median nerve.</b>
	<b>5.</b>	<b>Pulsed electromagnetic field.</b>
<b>Arabic Title Page</b>	:	<b>تأثير التنبيه الكهربائي العصبي العضلي والمجال الكهرومغناطيسي النباض على سرعة التوصيل الحركية للعصب المتوسط المُعتل فيما بعد الحروق.</b>
<b>Library register number</b>	:	<b>2423-2424.</b>

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<b>Author</b>	:	Tamer Mohamed Mohamady
<b>Title</b>	:	Effect of Selected Exercise Program on Natural Killer Cytotoxic Cells of Post-Mastectomy Patients.
<b>Dept.</b>	:	Physical Therapy Department for Surgery.
<b>Supervisors</b>	1.	Wafaa H. Borhan.
	2.	Wafaa Abdallah.
	3.	Amaal M. Abdel Baaky.
<b>Degree</b>	:	Doctoral.
<b>Year</b>	:	2011.
<b>Abstract</b>	:	
<p>The purpose of this study was to investigate the effect of selected exercise programme on Natural Killer Cytotoxic Cells of Post-Mastectomy Patients. Forty female patients who undergone mastectomy and were selected from the oncology surgery department, physical therapy clinic of National Cancer Institute (NCI), Cairo University. Their ages were 40-60years. These patients were randomly divided into two equal groups, Group A (an exercise group) (n=20) patients were received the selected exercise program and Group B, (a Control group) (n=20) patients were received the routine postoperative physical therapy protocol of National Cancer Institute (NCI), Cairo University. All patients were assessed and Pre- and post-exercise program measurements were taken by using Flow Cytometry [DAKO CYTOMATION CORP., model PARTEC III] for concentrations of circulating natural killer cell cytotoxic activity (NKCA) using a CD56 stained with FITC (Fluorescein isothiocyanate) dye. The results revealed a significant increase (<math>P&lt;0.05</math>) in all measured circulating natural killer cell cytotoxic activity (NKCA) pre-treatment and post 3 months of treatment in both exercise and control groups. But the rate of improvement in exercise group was more than that in control group which revealed the effect of the selected exercise programme in circulating natural killer cell cytotoxic activity (NKCA). It could be concluded that, early moderate exercise had a beneficial effect on the function of in vitro NK cells in post mastectomy patients rather than the routine postoperative physical therapy protocol.</p>		
<b>Key words</b>	1.	Exercise Therapy.
	2.	Breast Cancer Natural Killer cells.
	3.	Oncology.
<b>Arabic Title Page</b>	:	تأثير برنامج مختار من التمرينات العلاجية على الخلايا المناعية القاتلة للأورام في مرضى استئصال الثدي.
<b>Library register number</b>	:	<b>2697-2698.</b>