

## Physical Therapy Department of Surgery

Master Degree  
2003

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|--------------------------------|----|---|
| <b>Author</b>                  | :  | <b>Ali Osman Ali Ali Selim.</b>   |
| <b>Title</b>                   | :  | <b>Effect of pulsed electromagnetic fields on healing of infected burn wound in guinea pigs.</b>  |
| <b>Dept.</b>                   | :  | <b>Physical Therapy Department for Surgery.</b>   |
| <b>Supervisors</b>             | 1. | <b>Adel Abd El-Hamid Nossier.</b>   |
|                                | 2. | <b>Fadel Mohamed Ali.</b>   |
|                                | 3. | <b>Haytham Mohamed El-Hafez.</b>  |
| <b>Degree</b>                  | :  | <b>Master.</b>  |
| <b>Year</b>                    | :  | <b>2003.</b>  |
| <b>Abstract</b>                | :  | <p>Background . electromagnetic fields are used for promotion of healing in various conditions such as bone , cartilage , ligament , and nerve injuries . however , still there are controversies about the use of these fields for promoting skin burn wound healing either in infected or non infected burn wounds . objective . the aim of this work was to investigate the effect of electromagnetic fields in the form of square amplitude modulated waves (QAMW)on he healing of infected or non infected burn wound in guinea pigs methods . fifty males guinea pigs were used in this study . partial skin thickness burn wound of approximately 4 cm<sup>2</sup> was induced on the hind limb of each animal . the animals were divided into five equal groups (n=10)namely three control group (A , B and C)and two study groups (D and E). the wounds of group A, D were infected by pseudomonas aeuroginosa bacteria wounds of group C were infected by bacteria treated by 0.5 Hz QAMW for a period of one hour . the animals of the treatment of group (D, E)received 0.5Hz , QAMW for a period of one hour daily for 15 days . wound healing was evaluated by measuring the wound surface area (WSA)every 5 days and the survival percentage of of animals of each group was calculated . results showed that the WSA of the treatment groups (D, E)were significantly less than that of the control groups and of significantly high survival percentage than that of the control groups . conclusion. according to the results of this work it can be concluded that EMF in form of 0.5 Hz QAMW is an effective method in enhancing healing in both infected and non infected burn wounds.</p> |
| <b>Key words</b>               | 1. | <b>Electromagnetic fields.</b>  |
|                                | 2. | <b>Burn.</b>  |
|                                | 3. | <b>infected wound.</b>  |
|                                | 4. | <b>Physical Therapy.</b>  |
| <b>Arabic Title Page</b>       | :  | <b>تأثير المجالات الكهرومغناطيسية المتقطعة علي التئام جروح الحروق المصابة بالعدوى في الخنازير الغينية.</b>  |
| <b>Library register number</b> | :  | <b>1002-1003.</b>   |

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THERAPY DEPARTMENT OF SURGERY  
PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

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|--|----|---|
| <b>Author</b>  | :  | <b>Ghada Said Mohammed Omar.</b>  |
| <b>Title</b>   | :  | <b>Efficacy of silver sulfadiazine phonophoresis on wound healing in acute burn patients.</b>                                       |
| <b>Dept.</b>   | :  | <b>Physical Therapy Department for Surgery.</b>   |
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| <b>Degree</b>  | :  | <b>Master.</b>  |
| <b>Year</b>  | :  | <b>2003.</b>  |
| <b>Abstract</b>  | :  |   |
| <p>The purpose of the current study was to evaluate the efficacy of SSD phonophoresis approaches (continuous and pulsed modes on the rate of healing following acute burn injury . forty female patients with second degree burn in their anterior aspect of the dominant forearm were divided randomly into two groups : patients in group I received pulsed SSD phonophoresis for 15 min with a frequency of 1MHz , intensity of 1 w/ cm2 , and with the pulse ratio was set at 1 : 4 , and the pulsed duration was set at 2 m.s., while patients in group II received continuous SSD phonophoresis for 5 min with a frequency of 1 MHz , and intensity of 1 W/cm2 . the parameters investigated including 1.burn surface area measured by tracing the burn wound parameters , and 2.determination of glycosaminoglycan in urine by using cetylpyridiniu chloride turbidity method . both parameters are measured 24 hours post-burn injury and at one week interval for three weeks . student's t-test was used to compare the variables between both groups of the study and paired t-test for follow up in the same group . results of the study showed that there was a significant difference between pulsed SSD phonophoresis and continues SSD phonophoresis on the rate of healing in acute second degree burn in the second and third weeks after burn considering BSA parameter while the results showed a significant difference between both groups considering GAG parameter in the first three weeks after burn injury . it could be concluded that SSD phonophoresis might be valuable for enhance acute burn healing and the pulsed SSD phonophoresis is more effective for accelerating the acute burn wound healing.</p> |    |   |
| <b>Key words</b>   | 1. | <b>Burn healing.</b>  |
|  | 2. | <b>Phonophoresis.</b>   |
|  | 3. | <b>silver sulfadiazine.</b>   |
|  | 4. | <b>burn surface area.</b>   |
|  | 5. | <b>Glycosaminoglycan.</b>   |
|  | 6. | <b>Physical Therapy.</b>  |
| <b>Arabic Title Page</b>   | :  | <b>فاعلية الانتقال الجزئي لعقار سلفاديازين الفضة عبر الجلد عن طريق الموجات فوق الصوتية على التئام الجروح في مرضى الحروق الحادة.</b> |
| <b>Library register number</b>   | :  | <b>932-6333.</b>  |

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|--|----|---|
| <b>Author</b>  | :  | <b>Montasser Abdullah Fadl.</b>   |
| <b>Title</b>   | :  | <b>Tincture benzoic compound phonophoresis for treatment of decubitus ulcers.</b> |
| <b>Dept.</b>   | :  | <b>Physical Therapy Department for Surgery.</b>                                   |
| <b>Supervisors</b>   | 1. | <b>Adel A. Nossier.</b>   |
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| <b>Degree</b>  | :  | <b>Master.</b>  |
| <b>Year</b>  | :  | <b>2003.</b>  |
| <b>Abstract</b>  | :  |   |
| <p>The bed sores is a difficult barrier to embed an immobilized patients due to lack of hygienic atmosphere and body resistance, as will as increase compression, friction and wetting factors which mainly affect the skin, the first line of body defense mechanism, that delay rehabilitation process. medical and surgical interference required in several such cases which decrease the treatment period and cost.</p> |    |   |
| <b>Key words</b>   | 1. | <b>Herbal therapy.</b>  |
|  | 2. | <b>Phonophoreses.</b>   |
|  | 3. | <b>ultrasonic decubitus ulcers.</b>   |
| <b>Arabic Title Page</b>   | :  | <b>الانتقال بالموجات فوق الصوتية لصبغة الجاوى لعلاج قروح الفراش.</b>              |
| <b>Library register number</b>   | :  | <b>930-931.</b>   |

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| <b>Author</b>  | :  | <b>Yasser El-Sayed Mokhtar.</b>   |
| <b>Title</b>   | :  | <b>Evaluation of supervised incentive spirometry training regime in the management of pulmonary complications after valvular operation.</b> |
| <b>Dept.</b>   | :  | <b>Physical Therapy Department for Surgery.</b>   |
| <b>Supervisors</b>   | 1. | <b>Adel Abd El-Hamid Nossier.</b>   |
|  | 2. | <b>Abd El-Ghany Mohamed Abd El-Ghany.</b>   |
|  | 3. | <b>Zeinab Mohamed Helmy.</b>  |
| <b>Degree</b>  | :  | <b>Master.</b>  |
| <b>Year</b>  | :  | <b>2003.</b>  |
| <b>Abstract</b>  | :  |   |
| <p>This study was conducted to evaluate the efficacy of supervised incentive spirometry training program in management of pulmonary complications after valvular operation . twenty patients were treated with routine chest physical therapy program . the other twenty patients were treated with routine chest physical therapy in addition to incentive spirometry training program. postoperative pulmonary complications were reduced in both groups and there was on statistical significant difference between the two groups.</p> |    |   |
| <b>Key words</b>   | 1. | <b>chest physiotherapy.</b>   |
|  | 2. | <b>valve surgery.</b>   |
|  | 3. | <b>postoperative pulmonary complications.</b>   |
|  | 4. | <b>incentive spirometry.</b>  |
|  | 5. | <b>Physical Therapy.</b>  |
| <b>Arabic Title Page</b>   | :  | <b>تقييم البرنامج التدريبي الملاحظ على القياس الرئوى الحافز فى علاج المضاعفات الرئوية بعد العمليات.</b>                                     |
| <b>Library register number</b>   | :  | <b>938-939.</b>   |

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