### 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**

#### 2018

Author	:	Ahmed Mohamed Nagy
Title	:	Development of A Clinical Prediction Rule To Identify
		Efficacy of low level Laser Therapy On Abdominal
		Contouring In post bariatric surgeries
Dept.	:	Physical Therapy Department for Surgery.
Supervisors	1.	Zakaria Mowafy
	2.	Reda Abdelwahab Alkhoribi
Degree	:	Doctoral.
Year	:	2018.
Abstract	:	

The Purpose: This study was conducted to investigate the effect of the age, sex, BMI, and waist circumference on efficacy of low level laser in patients suffered from abdominal obesity. Sixty five patients (males and females) with ages ranged from 20-55 years were selected from post bariatric abdominal obesity patients. Patient Group: one group of patients suffered from abdominal obesity and managed with low level laser. The patient's waist circumferences were assessed before treatment (pre), after six weeks of treatment application. Results: The results of this study showed that best improvement was in patient's age from 36.17 to 43.171 years, BMI from 33.3 to 36.8, waist circumference from 102.1 to 109.8 cm. and Female sex type. Conclusion: it was concluded that sex, BMI, and waist circumference can affect the efficacy of low level laser on abdominal obesity with no effect for age variable

Key words	1.	Clinical Prediction.
	2.	Abdominal Contour
	3.	Low Level Laser
	4.	post bariatric surgeries.
Classification number	:	000.000.
Pagination	:	149 p.
Arabic Title Page	:	إنشاء قاعدة تنبؤ إكلينيكية للتعريف بفاعلية الليزر منخفض الشدة على محيط البطن
		بعد جراحات السمنة المفرطة.
Library register number	:	5889-5890

Author	:	Asmaa Mohamed Abd El-Khalek Shoaip
Title	:	Effect of combined ultrasound and microcurrent stimulation in
		the treatment of pressure ulcers
Dept.	:	Physical Therapy Department for Surgery.
Supervisors	1.	Zakaria Mowafy Emam Mowafy
	2.	Maha Abd El Monem Hassan
	3.	Wael Naeem Thabet
Degree	:	Doctoral.
Year	:	2018.
Abstract	:	

Purpose: to evaluate the theraputic efficacy of combined approches of ultrasound and microcurrent in accelerating pressure ulcers healing. Methods of evaluation (wound surface area and wound volume). Methods:- Forty-five (28 males and 17 females) with complete or incomplete spinal cord injury patients with pressure ulcers were randomly divided into three groups. Ultrasound Group (A) received ultrasound treatment plus the regular wound care and Combined Treatment Group (C) received the combined ultrasound and microcurrent plus the regular wound care are treatment was every other day for 4 weeks. Results:- Result showed that both ultrasound therapy and microcurrent stimulation were effective, but the combined ultrasound and microcurrent was more beneficial in decreasing ulcer surface area and ulcer volume as well as improving healing of pressure ulcers. Conclusion: - both were effective in accelerating pressure ulcer healing, but combined ultrasound and microcurrent treatment was more advantageous.

Key words	1.	Ultrasound.
	2.	Pressure ulcers.
	3.	Wound surface area.
	4.	wound volume
	5.	microcurrent stimulation in ulcers
Classification number	:	000.000.
Pagination	:	154 p.
Arabic Title Page	:	التأثير المشترك للموجات فوق الصوتية والتيار الكهربائي منخفض الشدة في علاج
_		حالات قرح الفراش.
Library register number	:	5983-5984

Author	•	Karim Ibrahim Abu-Khalil Amin Saafan
Title	:	Effect of Balance Training on Postural Stability For Post
		Mastectomy Lymphedema
Dept.	:	Physical Therapy Department for Surgery.
Supervisors	1.	Zakaria Mowafy Emam Mowafy
	2.	Samy Ramzy Shehata
Degree	:	Doctoral.
Year	:	2018.
Abstract	:	

Background: The medial longitudinal arch is very important in maintaining the foot posture and is the most important reference in determining the degree of pes planus and pes cavus. Aim: To compare between the impact of physical therapy program and foot insoles in children with flatfoot. Materials and methods: Thirty typically developing children with flexible flatfoot from both genders with age ranged from seven to twelve years participated in this study. They were allocated from governmental Egyptian schools. They were assigned randomly into two groups of equal numbers, exercise and insole groups. Children in the exercise group received a designed physical therapy program included therapeutic exercises and electrical stimulation for 90 minutes, three times/week for three successive months. Children in the insole group used Silicone insole, according to his/her foot size for six hours/six days accounting to the whole school days for three successive months. Navicular height, Staheli's arch index and radiological assessment were conducted before and after the suggested period of treatment. Results: Comparing pre-treatment mean values of the measured variables showed non-significant difference between the two groups. While, within group comparison revealed non-significant change in the insole group. On the other hand, significant improvement was recorded in the exercise group. Post treatment comparison between groups showed significant difference in all measured variables in the favor of the exercise group. Conclusion: Physical therapy program including exercises and electrical stimulation is effective in improving foot arch when it was compared with using foot insoles only in children with flatfoot.

Key words	1.	balance training.
	2.	APSI.
	3.	post mastectomy lymphedema.
	4.	biodex balance system.
	5.	MLSI.
	6.	Postural Stability.
Classification number	:	000.000.
Pagination	:	90 p.
Arabic Title Page	:	تأثير تدريب الاتزان على اتزان القوام للورم الليمفاوى عقب استئصال الثدى.
Library register number	:	6073-6074.

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

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

Author	:	Mohamed Bayoumi Ibrahim Bayoumi.
Title	:	Effect of Acidic Environment Using Acetic Acid Iontophoresis on
		Healing of Chronic Wounds.
Dept.	:	Physical Therapy Department for Surgery.
Supervisors	1.	Wafaa Hussein Borhan
	2.	Ashraf El-Sebaie
Degree	:	Doctoral.
Year	:	2018.
Abstract	:	

The Purpose: This study was conducted to investigate the effect of acidic environment using acetic acid iontophoresis on healing of chronic wounds. Sixty patients (males and females) were selected randomly and divided into three equal groups in number suffered from chronic wounds. Group (A): Suffered from chronic wounds and managed with acetic acid iontophoresis in addition to traditional medical intervention while patients in group (B) received acetic acid topically through dressings in addition to traditional medical intervention., group (c) received only traditional medical treatment. The patients in all groups were assessed before treatment (pre), after 3 weeks of treatment (post-1) and after 6 weeks of treatment application (post-2) for pH of wounds environment using pH meter, and were assessed for wound surface area using grid tracing method before treatment (pre), after 3 weeks (post-1) and 6 weeks (post-2) of treatment application. Results: The results of this study showed that the acidic wound environment had a significant difference in improving chronic wounds healing rate, this was clear through significant decrease in wound environment pH and decrease wound surface area in chronic wounds which were managed by acetic acid whether topically or through iontophoresis. Conclusion: it was concluded that modulation of wounds environment pH using acetic acid whether through iontophoresis or topically were effective approaches in healing of chronic wounds when compared to traditional medical treatment, but there was no significant difference between application of acetic acid through iontophoresis or topically.

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Key words	1.	Chronic wounds.
	2.	Acidic wound environment
	3.	Iontophoresis.
	4.	Acetic acid.
	5.	wound pH.
	6.	Wound healing.
Classification number	:	000.000.
Pagination	:	127 p.
Arabic Title Page	:	تأثير الوسط الحمضى باستخدام الانتقال الايونى الكهربى لحمض الاسيتيك على التئام الجروح المزمنة.
		الجروح المزمنة.
Library register number	:	6087-6088.

Author	:	Rania Mostafa Kamal
Title	:	Dynamic Splint versus Static Splint and Active Range of
		Motion in Treatment of Post Burn Hand Contracture
Dept.	:	Physical Therapy Department for Surgery.
Supervisors	1.	Mohamed Mahmoud Abd El Khalek Khalaf
	2.	Ashraf Elsebaey
	3.	Samah Nagib
Degree	:	Doctoral.
Year	:	2018.
Abstract	:	

Purpose: of this study was to investigate the therapeutic efficacy of the dynamic Splint versus the static splint combined with active range of motion in treatment of post burn hand contractures. Methods: Forty patients with post burn hand contractures of both sexes ranged in age from 18 to 40 years were participate in this study. Patients were selected within 6 months from the injury they will be assigned randomly into two groups of equal numbers (20 for each group). Evaluation for range of motion was done by the radiological measurement and hand grip strength was done by Hans held Dynamometer. Results: Range of motion (ROM) of the metacarpophalangeal (MCP) jointshad significant increase after treatment application (Post-treatment) for dynamic group when compared with the static group, were a non-significant difference in the hand grip strength (Post-treatment) between both groups of the study. Conclusion: modified dynamic metacarpophalangeal joint flexion splint provide continuous flexion to metacarpophalangeal joint that is needed for the restoration of range of motion in post-burn hand contractures. For the clinical application of hand splint in patients with hand disorders, additional research into its affects are required.

Key words	1.	Hand Contracture.
	2.	Static Splint.
	3.	Range of Motion.
	4.	Dynamic Splint.
	5.	Orthotic devices.
	6.	Rehabilitation.
	7.	Burns.
Classification number	:	000.000.
Pagination	:	132 p.
Arabic Title Page	:	الدعامة المتحركة مقابل الدعامة الثابتة مع تمرينات المدى الحركى على تيبس اليد بعد الحروق.
		بعد الحروق.
Library register number	:	6153-6154.

Author	:	Reem Hassan Ragab Hassan.
Title	•	Nordic walking exercises versus resistive exercises on upper extremity strength And volume of lymphoedema post mastectomy.
Dept.	:	Physical Therapy Department for Surgery.
Supervisors	1.	Mohamed Mahmoud Khalaf
	2.	Mohamed Hany El Nagar
Degree	:	Doctoral.
Year	:	2018.
Abstract	:	

Background and Objective: Breast cancer is the most common form of cancer among women in the world. Lymphedema is a debilitating complication following mastectomy, affecting the arm functions and quality of life of breast cancer patients. Nordic walking is a form of walking that involves walking while holding poles similar to ski poles. Methods: Forty female patients after 6 months post modified radical mastectomy (MRM), with age between 45 to 60 years old .Subjects are defined as having upper limb muscle weakness and lymphedema on physical exam they recruited from surgery clinic in National cancer Institute, Cairo University and the patients received the physical therapy treatment in outpatient clinic of National cancer Institute. The patients were randomly divided into two groups. The each group consisted of 20 patients. Group (A) received Nordic walking exercises for 8 weeks / 2 session per week group (B) received Active Resistive Exercises(ARE for 8weeks / 5 sessions per week, all patients were assessed pre and post treatment for these variables (Peak torque of shoulder flexors and extensors and lymphedema volume). Results: Statistical analysis revealed that there was a significant increase within both groups in muscle strength and reduction of lymphedema volume but group B had more improvement of upper limb muscle strength than group A and there was no significant difference in lymphedema between both groups Conclusion: Group B which is resistive exercises had a superior effect on upper limb muscle strength than group A.

Key words	1.	Nordic walking.
	2.	lymphedema.
	3.	muscle strength.
	4.	resistive exercises.
Classification number	:	000.000.
Pagination	:	78 p.
Arabic Title Page	:	تمرينات السير بطريقة نوردك مقابل تمرينات المقاومة على تقوية عضلات الطرف العلوي وحجم التورم الليمفاوي عقب استنصال الثدي.
Library register number	:	6175-6176.

Author	:	Rehan Gamal Abd el Nasser Ibrahim
Title	:	Effect Of Direct Myofascial Release And Kinesio Tape on
		Axillary Web Syndrome
Dept.	:	Physical Therapy Department for Surgery.
Supervisors	1.	Mohamed Mahmoud Khalaf
_	2.	Yasser Moustafa Elkerm
Degree	:	Doctoral.
Year	:	2018.
Abstract	:	

Background and Objective: Axillary web syndrome is a complication that can arise in patients following axillary dissection. It is considered as taut, stretched band underneath the skin. It originates in the axilla and extends to the medial and upper portion of the arm to the anterior portion of the elbow. Methods: Sixty female patients after 3 months post axillary dissection, their age ranged from 40 to 50 years old. The study was conducted from November 2015 to April 2017 .The subjects recruited and underwent physical examination at oncology clinic in Medical Research Institute, Alexandria University, Alexandria and the patients received the physical therapy in the outpatient clinic of physical therapy faculty, Pharos University, Alexandria. The patients were randomly divided into three groups. Each group consisted of 20 patients. Group (A) received direct myofascial release and kinesiotape, group (B) received direct myofascial release, group (C) received kinesiotape, all three groups received their treatment for 4 weeks / 2 sessions per week, all patients were assessed pre and post treatment for these variables (circular protractor and marks, visual analogue scale, active and passive shoulder abduction and flexion ROM, numbers of reflectors, thickness of the cord, echogenisty, area of cord and cord disorganization). Results: Statistical analysis revealed that there was no significant increase within groups circular protractor and marks, visual analogue scale, active and passive shoulder abduction and flexion ROM, numbers of reflectors, thickness of the cord, echogenisty and cord area of for all groups but group (A) which is a combination of kinesiotape and myofascial release had a significant in cord disorganization compared to the other groups (P<0.05). Conclusion: Group (A) which is combination of kinesiotape and myofascial release had a superior effect on compared to the other groups.

Key words	1.	direct myofascial release
	2.	kinesio tape
	3.	axillary web syndrome
Classification number	:	000.000.
Pagination	:	120 p.
Arabic Title Page	:	تأثير الافراج الليفي العضلى ولاصق الكينسيو على متلازمي الحبل الابطي.
Library register number	:	5905-5906.

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

Author	:	Shaimaa Mouhammed Ahmed El Sayeh
Title	:	Core Stability Exercises Versus Whole Body Vibration on
		Postural Stability for Post Mastectomy Lymphoedema.
Dept.	:	Physical Therapy Department for Surgery.
Supervisors	1.	Wafaa Hussein Borhan
	2.	Samy Ramzy Shehata
Degree	:	Doctoral.
Year	:	2018.
Abstract	:	

Purpose: The current study was conducted to evaluate the therapeutic efficacy of core stability exercises and whole body vibration on postural stability for postmastectomy lymphoedema and compare between them. Subjects and Methods: Forty female patients with unilateral postmastectomy lymphoedema, their age was between 40-60 years. They were selected randomly from outpatients clinic of Faculty of Physical Therapy and National Cancer Institute, Cairo University. Procedures: Group (A) composed of 20 patients who performed core stability exercises for 30 minutes, 3times/week for 8 weeks in addition to their complex decongestive program (Exercises, manual lymphatic drainage, bandaging and skin care). Group (B) composed of 20 patients who performed balance training on whole body vibration, 3times/week for 8 weeks in addition to their complex decongestive program (Exercises, manual lymphatic drainage, bandaging and skin care). Method of evaluation was measurements of antero-posterior and medio-lateral stability indices before and after two months of treatment for both groups by using biodex balance system. Results: There was a significant decrease in the mean values of APSI and MLSI in both groups but when comparing between both groups the result of the study was in favor to whole body vibration group. Conclusion: The core stability and whole body vibration training have a beneficial therapeutic effect on improving the postural stability in patient with unilateral postmastectomy lymphoedema, but the whole body is more effective than core stability exercises.

Key words	1.	Core stability exercises.
	2.	Postural stability.
	3.	Postmastectomy lymphoedema.
	4.	Whole body vibration.
Classification number	:	000.000.
Pagination	:	100 p.
Arabic Title Page	:	تمارين الثبات الجزعى مقابل الإهتزاز الكلى للجسم على إتزان القوام عقب إستئصال
_		التدى لحالات الورم الليمفاوي.
Library register number	:	6025-6026.