Master Degree
2010

Author : Amany Refaat Mohammed.
Title : Immunoglobulin response to laser irradiation in chronic Tonsillitis.
Dept. : Physical Therapy Department for Surgery.
Supervisors 1. Adel Abdel Hamed Nossier.
Degree : Master.
Year : 2010.

Abstract: Purpose: to investigate the expression of IgM, IgG and IgA molecules of B-cells by application of laser puncture in patients with chronic tonsillitis. Methods: forty patients with chronic tonsillitis. The patients were randomly divided into two equal groups, study group (laser irradiation group) and control group. The VAS (Visual Analogue Scale) and lab assessment (IgG, IgM, IgA) had been measured before (pre) after 30 days (post) from the beginning of the treatment for all group. infrared laser was set for the treatment with wavelength: 905nm, frequency: 100Hz, power: 0.2mW, energy: 20mJ and duration of treatment: 100s for each acupuncture points (CV 22 - GV 14 - LI 4 – LU9 - SI 17 - ST 9 - ST 36) on each side of the body 2 days per week until 1 month plus all patients received medical treatment (antibiotics) Results: the results show that there were a significant decrease in pain and normalization of lab findings in group A patients (laser group) compared to group B (control group), Conclusion: Low Level Laser Therapy was effective in treating patients with chronic tonsillitis.

Key words 1. Tonsillitis.
  2. Lasers.
  3. Acupuncture.
  4. IgM.
  5. IgG.
  6. IgA.
  7. Immunoglobulin response.
  8. Laser irradiation.

Arabic Title Page : استجابة بروتينات الدم المناعية للعلاج بالليزر الإشعاعي في مرضى التهاب اللوزتين المزمن.

Library register number : 2185-2186.
This study was conducted in the faculty of Physical Therapy, Cairo University through December 2008 to September 2009, to investigate the efficacy of vacuum compression therapy on vascular ulcer healing. It examined the effect of vacuum compression therapy with vasotrain 447 on the rate of vascular ulcers healing mainly the arterial type. Forty patients with vascular ulcers (arterial) participated in the study. Their age ranged from 45-65 years. They were admitted from the teaching hospitals of Cairo University. They were assigned into two equal groups; an experimental group and a control group. Each group consisted of twenty patients. The two groups were the same in terms of age, sex, type of ulcer, and type of medication. Patients in the experimental group received vacuum compression therapy in addition to conventional therapy, including debridement, systemic antibiotics, wound cleaning with normal saline, offloading (pressure relief), and daily wound dressing. The total treatment time was two month (8 weeks), three sessions per week. The duration of session was 60 minutes while patients in the control group received conventional therapy only. Before starting the therapy by the vacuum compression with the vasotrain 447 (immediately before starting the 1st session), after (4) weeks and also after (8) weeks of the therapy (after the last session), ulcer surface area was calculated by using the simple tracing method and also the ankle brachial pressure index was determined. For the control group patients, the ulcer surface area and the ankle brachial pressure index were calculated before the application of routine conventional therapy, after (4) weeks and also after (8) weeks of the therapy. The collected data was statistically analyzed by descriptive and analytic statistics. Pre-test, after (4) weeks and post-test was used to determine significant difference in ulcer surface area and ankle brachial pressure index pre application of VCT + routine conventional therapy, after (4) weeks and after (8) weeks in the experimental group and before and after two month without VCT in the control group. The level of significance was set at 0.05 for all tests. Eventually, after the discussion of the results and according to reports of the previous investigators in fields related to this study, it can be claimed that the application of the VCT had a valuable healing effect on the lower limb vascular ulcers as evidenced by the highly significant decrease in USA and the highly significant increase in ABPI in patients of lower limb vascular ulcers.

Key words
1. vacuum compression therapy.
2. vascular ulcers healing.

Arabic Title Page : فاعلية العلاج بضغط الفراخ على النافذة الفرح الوعائية.
Library register number : 2087-2088.
Author : Ebtsam Helmy Ahmed Allam.
Title : Effect of low level laser therapy on hair regrowth in alopecia.
Dept. : Physical Therapy Department for Surgery.
Supervisors
1. Wafaa Husein Borhan.
2. Alsayed Zaki Salem.
3. Amal Mohamed Abd El Baky.
Degree : Master.
Year : 2010.
Abstract
Purpose: To evaluate the efficacy of the low level laser therapy on hair regrowth in alopecia.
Methods of evaluation (photographic evaluation via the 7-PAS and HCM). Methods: - 30 male and female patients with alopecia were divided into two groups. Control group (A) received nutrition instructions and no laser, study group (B) received nutrition instructions and laser application, duration of treatment was 10 minutes, 3 times per week for 3 months as a total period of treatment. Results: - Result showed that the low level laser therapy was effective and fruitful in increasing hair regrowth in alopecia as evidenced by the highly significant increase in the frontal, vertex and temporal 7-PAS and HCM. Conclusion: - Low level laser therapy is beneficial in improving hair regrowth in alopecia.
Key words
1. Low level laser therapy.
2. Alopecia.
3. Hair regrowth.
4. Laser therapy.
5. Lasers.
Arabic Title Page : تأثير الليزر منخفض الطاقة على حالات تساقط الشعر.
Library register number : 2139-2140.
**Author**: Fatma El Zahraa Hassan Kamel.

**Title**: The Efficacy Of Pulsed Dye Laser Therapy On Acne Scar Acn.

**Dept.**: Physical Therapy Department for Surgery.

**Supervisors**
1. Wafaa Hussein Borhan.

**Degree**: Master.

**Year**: 2010.

**Abstract**

**Purpose**: The current study was carried out to evaluate the efficacy of the pulsed dye laser therapy (PDL) in the treatment of acne scar. Methods: thirty patients with acne scar were randomly divided into two equal groups (PDL group and medication group). The methods of assessment included clinical evaluation scale for acne scarring (ECCA) and photographic method. For PDL Group, they received PDL therapy for one time/week for two months plus while medication group received only topical retin-A (1 time/day) for two months Results: The results showed that there was significant decrease in acne scars in PDL group compared with the control group. In relation to ECCA and photographic method the study revealed that the results obtained in study group were superior to that of control group, Conclusion: It was concluded that pulsed dye laser PDL was effective in controlling of acne scars in expression of decreasing numbers of acne scars and improving the appearance.

**Key words**
1. Acne Vulgaris.
2. Acne Scar.

**Arabic Title Page**: فاعلة العلاج باشعة الليزر ذو الصبغة اللاذعة على علاج ندبة حب الشباب.

**Library register number**: 2109.2110.
### Abstract

**Purpose:** The purpose was to investigate the effect of a 12 weeks supervised conditioning program including both resistance and aerobic training on measures of aerobic fitness and muscular strength in patients after liver transplantation. **Subject:** Thirty patients with liver transplantation selected from El Sahel Teaching Hospital aged 24:62 years were randomly assigned to exercise and control group. **Procedures:** The patients of exercise group performed three sessions per week for 12 weeks of resistance and aerobic training while control had no any exercise intervention. Before and after training a treadmill test determining VO2peak, muscle strength of lower limb by hand held dynamometry were assessed. **Results:** After training significant increases in VO2peak and lower muscle strength were shown in the exercise group but no significant change in control group. **Conclusion:** patients with liver transplantation can safely perform both aerobic and resistance training. Training results in significant increase in measures of aerobic fitness and muscle strength.

### Key words

1. liver transplantation.
2. Aerobic training.
4. Physical fitness.
5. Muscle strength.
6. VO2max.
7. Muscle strength.

### Arabic Title Page

استجابة أقصى معدل استهلاك الأكسجين وقوة العضلات لبرنامج مختار من التمرينات بعد عمليات زراعة الكبد.

### Library register number

2337-2338.
**Author** : Marwa Mahdy Abd El Hameed.

**Title** : The effect of exercise program intervention on maximum oxygen consumption and fatigue level in patients with systemic lupus erythematosus.

**Dept.** : Physical Therapy Department for Surgery.

**Supervisors**
1. Wafaa Hussien Borhan.
2. Alsayed Zaki Salem.

**Degree** : Master.

**Year** : 2010.

**Abstract**

**Purpose** : The purpose of the study was to investigate the effect of exercise training on maximum oxygen consumption and fatigue level in patients with systemic lupus erythematosus. Materials and Methods : Forty patients of systemic lupus erythematosus (SLE) randomly &equally included at the starting of the study, they were divided into two groups; Group A (Control) which consisted of 20 patients with mean value of age was 32.3±7.8 years, mean values of body weight was 81.4±13 kilograms, mean value of height was 161.3±8.8 centimeters, and encouraged to remain active during their medical treatment. Group B (Study) which included 20 patients with mean value of age was 33.25±8.22 years, mean values of body weight was 80±15.1 kilograms, mean value of height was 157.6 ± 9.09 centimeters, and actively participated in the suggested exercise training program. Procedures : The patients of study group performed three sessions per week for 12 weeks of aerobic training while control group had no any exercise intervention. Before and after training VO₂ peak and level of fatigue by Iowa fatigue scale were assessed. Results : There was a significant increase in VO₂ peak and significant decrease in fatigue level in the study group but no significant change in control group. Conclusion : Exercise training program can improve maximum oxygen consumption, and decrease fatigue level in SLE patients.

**Key words**
1. SLE.
2. Fatigue.
3. exercise program intervention .
4. maximum oxygen consumption.
5. systemic lupus erythematous.

**Arabic Title Page**

تتأثير التدخل ببرنامج تمريّنات على أقصي معدلات استهلاك الأكسجين ومستوى الإرهاق بمريض الذببة الحمراء الجهازية.

**Library register number** : 2079-2080.
**Author** : Mohamed Maher Ahemed Mohamed.

**Title** : Electrical Stimulation Versus in Postoperative faecal Incontinence in Down Syndrom Associated Hirschsprung Disease.

**Dept.** : Physical Therapy Department for Surgery.

**Supervisors**
1. Adel Abd El Hamed Nossier.

**Degree** : Master.

**Year** : 2010.

**Abstract**

Background: postoperative faecal incontinence in Down syndrom associated Hirschsprung disease is reported as a major health problem world wide. The purpose of the current study was to investigate the effect of electrical stimulation versus pelvic floor exercises in postoperative faecal incontinence in Down’s syndrome associated Hirschsprung disease. Thirty Down syndrom children (18 male & 12 female) associated Hirschsprung disease had faecal incontinence followed surgical treatment were included in current study. Their ages ranged from 6-9 years. They were assigned randomly into two equal groups. The first group (A) received electrical stimulation, 3 times per week for one month. The second group (B) received pelvic floor exercises 3 times per week for one month, both groups received the same medications, dietary regime and toilet training. Assessment was performed before treatment (pre treatment), after 6 sessions (post test 1) and after 12 sessions (post test 2). The assessment included the frequency of incontinence using Kelly’s score and anal pressure using anal pressure device. Results showed significant differences in Kelly’s score between groups after 6 sessions (P< 0.004) and after 12 sessions (P< 0.0001). Furthermore, anal pressure results showed a significant difference after 6 sessions (P< 0.0009) and after 12 sessions (P<0.0001). Conclusion: electrical stimulation and pelvic floor exercises respectively proved to be a beneficial in the treatment of postoperative faecal incontinence in Down syndrom associated Hirschsprung disease.

**Key words**
1. Hirschsprung disease.
2. Faecal incontinence.
3. Electrical stimulation.
4. Pelvic floor exercises.
5. Postoperative faecal Incontinence.

**Arabic Title Page**

**Library register number** : 2283-2284.
Author : Rany Samy Azmy.

Title : Efficacy of low level laser on lower limb ecthymatous ulcerations.

Dept. : Physical Therapy Department for Surgery.

Supervisors
1. Zakaria Mowafy Emam Mowafy.
2. Mohamed Abd-El-Naiem Salam.

Degree : Master.

Year : 2010.

Abstract
Purpose: to evaluate the efficacy of the gallium-arsenide (Ga As) laser in accelerating the lower limb ecthymatous ulcerations healing. Methods of evaluation (wound surface area and colony count). Methods: Forty patients with lower limb ecthymatous ulcerations were randomly divided into two groups. Group (A) received the GA-As laser plus the routine medical care. Group (B) received the routine medical care only, duration of treatment was 6 minutes daily for 21 days. Results: The results showed that the GA-As laser plus the routine medical care is more beneficial in decreasing ulcer surface area and colony count as well as improving healing of the venous ulcers than the routine medical care only. Conclusion: The GA-As laser is effective in accelerating healing of the lower limb ecthymatous ulcerations.

Key words
1. Lasers.
2. Ecthyma.
3. Ecthymatous ulcerations.
4. Wound surface area.
5. Colony count.

Arabic Title Page : فاعليّة الليزر منخفض الشدة على التقرحات البترية في الطرف السفلي.

Library register number : 2291-2292.
Author : Sherehan Ashraf Anwar.
Title : Efficacy of low level laser on abdominal obesity after gastric banding in female.
Dept. : Physical Therapy Department for Surgery.
Supervisors
1. Wafaa Hussien Borhan.
Degree : Master.
Year : 2010.
Abstract
Purpose: To evaluate the efficacy of the low level laser irradiation on reduction of abdominal obesity after gastric banding by using two various methods of evaluation (waist to hip ratio and skin fold measurement). Methods: Thirty female patients with abdominal obesity who underwent gastric banding at least year ago. The Patients were randomly divided into two groups (study group and control (placebo group)). The WHR and Skin fold measurement had been measured at the beginning of the treatment (Pre), after two weeks (Post 1) and after four weeks (Post 2) from the beginning of the treatment for both groups. For Group A the LLLT was set for the treatment with the following parameters; wavelength of 635nm, dose of 3.6J/cm² its power source (100-240VAC 50-60Hz),it has constant Wave (1,000 Hz), with total duration of treatment 20 minutes, three times per week, for four weeks. Group B (Control group) they received placebo treatment. Results: The result showed a significant decrease in WHR and Skin Fold Measurement in LLLT group compared to the control group. Conclusion: it was concluded that Low Level Laser was effective in reducing abdominal obesity.

Key words
1. Abdominal obesity.
2. Adipocyte.
3. Subcutaneous Fat.
4. Gastric Banding.
5. Waist to Hip Ratio.
7. Low Level Laser.
8. Female Gastric Banding.

Arabic Title Page : فاعلية الليزر مستوي منخفض على سمنة البطن بعد تحزيم المعدة في السيدات.
Library register number : 2333-2334.
Author : Zeinab Abd El-Fattah Ali Hamada.

Title : Efficacy of betamethasone dipropionate phonophoresis in treatment of psoriasis.

Dept. : Physical Therapy Department for Surgery.

Supervisors
1. Adel Abdel Hamed Nossier.
2. Ranya Adel Lotfi.

Degree : Master.

Year : 2010.

Abstract
Purpose: of the current study was to investigate the effect of Betamethasone Dipropionate Phonophoresis (BDP) in the Treatment of psoriasis. Subject: fifteen patients were included in this study. Their ages ranged from 15 to 60 years. Each patient was divided into two sides Procedures: Group (I) received placebo BDP for 4 weeks, 3 days/week. Group (II) received 4 weeks of treatment with BDP using continuous mode for 5 min, with 1 MHz and 1.5 W/cm², 3 days/week while. The measurements were done before the study and after one month of treatment for all groups by using Ultrasonography and wound surface area tools. Results: of this study showed reduction in the thickness of skin and wound surface area after the treatment for Group (A), and (B) with a percentage of 24.32%, 42.07%, respectively for the thickness of skin and 30.48%, 48.09%, respectively for psoriasis surface area. There was a highly significant difference between two groups after the treatment. It was observed that BDP using Continuous was more effective. Conclusion: It could be concluded that. The combination of ultrasound and betamethasone dipropionate cream can be considered as an effective method to enhance the drug efficacy and its penetration, thus enhancing the treatment of psoriasis.

Key words
1. Psoriasis.
2. Phonophoresis.
4. Ultrasound.

Arabic Title Page
فاعهُح اَرقال انثُرايُثاصوٌ دَثشوتاَىَُد تانًىخاخ فىق انصذُح فٍ علاج انصذفُح.

Library register number : 2293-2294.