Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and Its Surgery

Doctoral Degree

2016

Author	:	**Ahmed Abdullah Abdelrazek**
Title	:	**Efficacy of Aerobic Exercises and Natural Extract on Tumor Necrosis Factor (α) in Women with Metabolic Syndrome**
Dept.	:	**Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.**
Supervisors	**1.**	**Awny Fuad Rahmy**
	2.	**Nagwa Mohamed Ammar,**
	3.	**Gihan Samir Mohamed**
	4.	**Mahmoud Ahmed Mahmoud Niazy**
Degree	:	**Doctoral.**
Year	:	**2016.**
Abstract	:	

The aim of this study was to assess the tumor necrosis factor (α) response to aerobic exercise when combined with the water extract of the dried leaves of green tea as a natural extract. Sixty women with metabolic syndrome participated in this study, their ages ranged between 40 to 50 years with mean value (45.1 ± 2.77, 44.75 ± 3.16, 45.45 ± 2.99) years for group A, B, AND C respectively, they were selected from Elmonira hospital from internal medicine outpatient clinic, And they were divided randomly into three equal groups. Group (A) who participated in a program of aerobic exercise in the form of treadmill walking (4 times per a week) for 30 min and drank 5 cups of the water extract of the green tea leaves daily, group (B) who participated in the same program of aerobic exercise as group (A) but without drinking green tea, and group (C) who drank the same green tea extract in the same manner as group (A) but without application of any aerobic exercise at all. The treatment program continued for 12 weeks (4 sessions of exercise per week and 5 cups of the water extract of the dried green tea leaves daily). Tumor necrosis factor (α), Lipid profiles (TC, HDL, LDL), BMI, BF were recorded at the beginning and after the treatment program for all patients of the three groups. The results of this study revealed a significant decrease in the Tumor necrosis factor (α) in the three groups with the best percentage of improvement in the tumor necrosis factor(α) was 42% for group (A) followed by group (B) 20.45% then group(C) 39.69% and the best percentage of improvement in the LDL-C was for group(A) 19.59 followed by group(C) 7.95 then group(B) 6.98 and the best percentage of improvement in the HDL-C was for group(A) 29.01 followed by group(C) 18.51 then group (B) 17.48. It can be concluded that aerobic exercise when combined with the green tea water extract can produce a significant improvement(to greater extent)t for women with metabolic syndrome as evidenced by highly decrease in Tumor necrosis factor (α), BMI , BF% and Blood Lipid.with the favour of group (A).

Key words	**1.**	**tumor necrosis factor (α)**
	2.	**aerobic exercises**
	3.	**green tea**
	4.	**Natural Extract**
	5.	**Metabolic Syndrome**
	6.	**Women**
Classification number	:	**000.000.**
Pagination	:	**205 p.**
Arabic Title Page	:	**تأثير التمرينات الهوائية والمستخلص الطبيعي علي معامل التعفن السرطاني(α) في السيدات المصابين بمتلازمة الأيض.**
Library register number	:	**4851-4852.**

Author	**:**	**Ali Mohammed Ali Hassan**
Title	**:**	**Long Term Effect of Cardiac Rehabilitation Program on Patients with Percutaneous Coronary Intervention**
Dept.	**:**	**Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.**
Supervisors	**1.**	**Zahra M. Hassan Serry**
	2.	**Osama Sayed Abd El Moneem**
	3.	**Neseren Ghareeb El Nahas**
Degree	**:**	**Doctoral.**
Year	**:**	**2016.**
Abstract	**:**	

Objective: The aim of this study was to determine the long term effect of cardiac rehabilitation (CR) program on patients with percutaneous coronary intervention (PCI). Methods: Sixty patients of both sexes (41 men and 19 women) had done PCI participated in this study, selected from National heart institute, Embaba, Giza. Their ages were ranged from 40-60 years old. The study was conducted from April, 2014 to October, 2015.They were assigned to 2 equal groups in number. The first group (study group): thirty patients (21 men and 9 women) that had been received mild to moderate constant intensity aerobic exercise training based on Borg's rating of perceived exertion (RPE) scale using treadmill, 3 times/week, 50 minutes, for 6 month, also educational program of secondary prevention according to the guidelines of AHA/ACC for one year. The second group (control group): thirty patients (20 men and 10 women) that had been received instructions about risk factors after PCI once and were followed up after one year. Functional capacity was assessed by six minutes walking test (6-MWT), quality of life (QoL) was assessed by short form 36 (SF-36) questionnaire, and assessments of cardiovascular risk factors were done before the CR program and after one year. Results: The data obtained in the present investigation indicated that, both groups were matched before the study with no significant differences between them (P>0.05). There were significant improvements in functional capacity and cardiovascular risk factors of the study group when comparing both groups, Percents of changes were (18% ↑ and 3% ↑ for 6-MWT, 75%↓ and 21 % ↓ for smoking, 8.4 % ↓ and 2% ↓ for BMI, 18.8 % ↓ and 1.2% ↓ for fasting blood glucose, 4.2 % ↓ and 2.1% ↑ for systolic blood pressure, 2.6% ↓ and 2.3% ↑ for diastolic blood pressure, 11.5% ↓ and 0.75% ↓ for cholesterol, 10.9% ↓ and 0.86% ↓ for TG, 5.3% ↑ and 3.6% ↓ for HDL, and 16.3% ↓ and 0.44% ↑ for LDL) for study and control groups respectively. Also, the data obtained in the present investigation indicated that, comparison of both groups revealed statistical significant improvement of eight domains of SF-36 questionnaire in the study group. Percents of changes were (29.8% ↑and 21.4% ↑for physical functioning, 78.6% ↑ and 24.5% ↑for role limitations due to physical health, 79.2% ↑and 19.4% ↑for role limitations due to emotional problems, and 27.9% ↑and 12.5% ↑for energy/ fatigue, 13.4% ↑and 4.1% ↑for emotional well being, 32.6% ↑and 8.9% ↑for social functioning, 22.1% ↑and 8.3% ↑for pain, and 52.5% ↑and 41% ↑for general health) for study and control groups respectively. It was concluded the effectiveness of long term effect of cardiac rehabilitation program in improving functional capacity, controlling the cardiovascular risk factors and improving quality of life of patients after PCI.

Key words	**1.**	**Cardiac rehabilitation**
	2.	**cardiovascular risk factors**
	3.	**functional capacity**
	4.	**Percutaneous Coronary Intervention**
Classification number	**:**	**000.000.**
Pagination	**:**	**145 p.**
Arabic Title Page	**:**	**التأثير طويل المدى لبرنامج تأهيل مرضى القلب بعد القسطرة التداخلية.**
Library register number	**:**	**4877-4878.**

Author	**:**	**Amany mohamed abd elhafez**
Title	**:**	**Effect of shock wave therapy versus ultrasound on ventilatory functions on chronic neck pain in elderly**
Dept.	**:**	**Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.**
Supervisors	**1.**	**Azza Abd Elaziz Abd Elhady**
	2.	**Ahmed Fathy Geneidy**
Degree	**:**	**Doctoral.**
Year	**:**	**2016.**
Abstract	**:**	

Purpose: The present study was conducted to investigate the efficacy of shock wave therapy versus ultrasound on ventilatory function of elderly patients with chronic neck pain. Subjects and Methods: Forty five elderly patients (24 women and 21 men) with chronic neck pain were selected from Kobri El Koba military hospital and assigned into 3 groups (A, B and C) with 15 patients in each group of both sexes (women and men), their age ranged between 60-70 years old. The three groups were group (A) who received hot packs, stretching exercises and shockwave therapy, while group (B) received hot packs, stretching exercises and ultrasound and group (C) received hot packs, stretching exercises only. The three groups received the treatment program for 3 days / week for 6 weeks and they were homogenous in age, weight, height and gender. The variables that were measured included Neck disability index, Visual analog scale, Pain pressure threshold and pulmonary functions tests which include slow vital capacity (SVC), forced vital capacity (FVC) and maximum voluntary ventilation (MVV). These variables were assessed before and after treatment program. Results: The results revealed significant improvement of all measured variables in the three groups after six successive weeks, also revealed significant difference between the three groups after treatment in favor of the group A then group B and group C with percent of improvement of 38.86%, 29.9% and 22.19% consequently. Conclusion: Shockwave therapy and ultrasound can be added to the conventional physical therapy program to improve ventilatory functions in elderly patients with chronic neck pain.

Key words	**1.**	**Chronic neck pain**
	2.	**Shock wave**
	3.	**Ventilatory function**
	4.	**Elderly**
	5.	**Ultrasound**
	6.	**ultrasound**
	7.	**neck pain**
Classification number	**:**	**000.000.**
Pagination	**:**	**146 p.**
Arabic Title Page	**:**	**تأثير الموجات التصادمية العلاجية مقابل الموجات الصوتية على وظائف التهوية التنفسية على الام الرقبة المزمنة للمسنين.**
Library register number	**:**	**5137-5138.**

Author	**:**	**Amira Ahmed Mohamed El-Naggar**
Title	**:**	**Post burn scoliosis in mansoura city (survey study)**
Dept.	**:**	**Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.**
Supervisors	**1.**	**Zakaria Mowafy Emam Mowafy**
	2.	**Ahmed Bahaa EL-Deen**
	3.	**Ashraf Hassan Mohamed**
Degree	**:**	**Doctoral.**
Year	**:**	**2016.**
Abstract	**:**	

Introduction: Scoliosis may occur because of asymetrical burn injures of the trunk, pelvis and shoulder regions. Material and Results: This work aimed to estimate the frequency of incidence of post burn scoliosis in Mansoura City, three hospitals were included. Results: We had studied 500 patients from both sexes; children aged from 10-16 years (N=115 patients); male children were 46 patients and female children were 69 patients. Adults patients aged from >16-50 years (N=385 patients); male patients were 160 and female patients were 225. All patients are subjected through clinical examination and for the chronic patients plain X-ray (P-A view) for the vertebral column and Cobb angle done using Surgimap spine software. Adult female patients with burn injury were predominant than male patients, Young adult patients were more reported, and female children were predominant than male children patients. Flame burn was highly predominant in adult patients and scald burn was significant for the female (adult and children) patients. The incidence of post burn scoliosis in Mansoura City was 0.006.
Conclusion: scoliosis is a rare disease as a complication of postburn injury.

Key words	**1.**	**Post Burn Scoliosis**
	2.	**mansoura city**
	3.	**survey study**
Classification number	**:**	**000.000.**
Pagination	**:**	
Arabic Title Page	**:**	**جنف العمود الفقاري لمرضي الحروق فى مدينة المنصورة (دراسة مسحية)**
Library register number	**:**	**4781-4782.**

Author	**:**	**Ashraf Helal Farag Amar**
Title	**:**	**Diaphragmatic Response to Inspiratory Muscle Training Versus Aerobic Exercise after Lung Decortication**
Dept.	**:**	**Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.**
Supervisors	**1.**	**Awny Fouad Rahmy**
	2.	**Khaled Mahmoud Kamel**
	3.	**Mohamed Abd El-Halim Mohamed Shendy**
Degree	**:**	**Doctoral.**
Year	**:**	**2016.**
Abstract	**:**	

Background: Decortication is a surgical procedure that consists in restoring the ventilatory function of the lung by removing the constricting membrane that compresses it over the mediastinum. The diaphragmatic dysfunction is a major factor in the etiology of postoperative pulmonary complications after lung decortications. The objective of this study: was to establish the efficacy of inspiratory muscle training versus aerobic exercise on diaphragmatic muscle strength, excursion and pulmonary functions post lung decortication. Methods: Thirty patients from both sex, second day post lung decortication surgery participated in this study, their aged ranged from 20-50 years old Patients assigned randomly into two equal groups Group (I) consisted of 15 patients post lung decortication received inspiratory muscle training (IMT) in addition to conventional chest physiotherapy, Group (II) consisted of 15 patients post lung decortication received aerobic exercise (AE) in addition to conventional chest physiotherapy. Results: In this study, the measuring variables showed no significant differences in between both groups at the baseline (P< 0.05). The results showed that both IMT and AE increased significantly, maximum inspiratory pressure (MIP) within each group, Significant differences of the post treatment mean values between both groups in favor of group IMT were recorded (p<0.05).and increased significantly diaphragmatic excursion, FVC, FEV1, MVV within each group, Significant differences of the post treatment mean values between both groups in favor of group AE were recorded (p<0.05).but had no significant effect (P>0.05) on FEV1/FVC ratio within each group or on comparing the two groups. Conclusion: Both IMT and AE provided a statistically significant improvement in the ventilatory functions, diaphragmatic strength and excursion due to increasing the respiratory muscles strength and endurance .These findings advocate for application of IMT and AE in thoracic surgery rehabilitation programmes.

Key words	**1.**	**Diaphragmatic response**
	2.	**Lung decortication**
	3.	**Inspiratory muscle training**
	4.	**Aerobic Exercise**
Classification number	**:**	**000.000.**
Pagination	**:**	**185 p.**
Arabic Title Page	**:**	**استجابة الحجاب الحاجز لتدريب عضلة الشهيق مقابل التمرينات الهوائية بعد تقشير الرئة.**
Library register number	**:**	**4649-4650.**

Author	**:**	**Faten El-Tohamy Megahed Ali**
Title	**:**	**Effect of Inspiratory Muscle Training on Resipatory Muscle Functions in Multiple Sclerosis**
Dept.	**:**	**Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.**
Supervisors	**1.**	**Azza Abd El Aziz Abd El Hady**
	2.	**Hoda Ali Abo-Yousef**
	3.	**Mohamed El-said**
	4.	**Mona Mohamed Taha**
Degree	**:**	**Doctoral.**
Year	**:**	**2016.**
Abstract	**:**	

Background: This study aimed to investigate the effect of inspiratory muscle training on respiratory muscle functions in multiple sclerosis patients. Methods: Forty Multiple Sclerosis patients from both gender (29 women &11men), their age ranged 25-45 years selected from neurology department of Kasr Al-Aini hospital, were assigned randomly into two groups equal in number , each group received 24 sessions, 3 times /week for 8 weeks: Group A Twenty Multiple Sclerosis patients received inspiratory muscle training using IMT device in addition to conventional chest physiotherapy , Group B Twenty Multiple Sclerosis patients received conventional chest physiotherapy only. Respiratory muscle functions& Fatigue severity were assessed for both groups before and after treatment. Results: There were significant increases in the pulmonary functions (PImax, FVC, FEV1, MVV, PEF),Diaphragmatic excursion(DE), Fatigue severity (FS), and pulmonary dysfunction index(PDI) by 40.33%,23.41%, 27.94% ,31.43, 35.18%,49.76% , 13.98%, 35.16% respectively in group (A) after treatment program while in group (B) there were significant increases in PImax , DE, FS and PDI only by 17.37%, 6.87% , 5.04% ,12.76% respectively. Conclusion: Inspiratory Muscle Training (IMT) provided a significant improvement in respiratory muscle functions due to increasing the respiratory muscle strength, efficiency and endurance, So IMT should be considered in rehabilitation program of multiple sclerotic patients.

Key words	**1.**	**Multiple sclerosis**
	2.	**pulmonary functions**
	3.	**Inspiratory muscle training**
	4.	**Inspiratory Muscle Training**
	5.	**Resipatory Muscle Functions**
Classification number	**:**	**000.000.**
Pagination	**:**	**157 p.**
Arabic Title Page	**:**	**تأثير تدريب عضلات الشهيق على وظائف عضلات التنفس لحالات التصلب العصبي .**
Library register number	**:**	**4873-4874.**

Author	**:**	**Gohar Mohammed Gohar Albady**
Title	**:**	**Effect of Different Exercise Intensities on Type 2 Diabetic Patients**
Dept.	**:**	**Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.**
Supervisors	**1.**	**Awny Foud Rahmy**
	2.	**Hany Farid Eid Morsy Elsisi**
	3.	**Manal Ahmed Mohamed**
Degree	**:**	**Doctoral.**
Year	**:**	**2016.**
Abstract	**:**	

Purpose: The aim of this study was to compare between the effects of different exercise intensities on nitric oxide and insulin resistance in type 2 diabetes mellitus. Methods: sixty women patients with type 2 diabetes mellitus selected from Kasr al Aini hospital (out patients diabetes clinic), their age ranged from 40 to 50 years included in the present study. Patients divided into two groups equal in number: Group (A) received a program of aerobic exercise practicing on cycle ergometer for 25 minutes three times per week for 8 weeks. Group (B) received a protocol of high intensity interval exercise on cycle ergometer for 25 minutes three times per week for 8 weeks. The biochemical changes in nitric oxide and insulin resistance levels were measured at the beginning of the study and after eight weeks.Results: The results showed that nitric oxide increased significantly (P<0.05) within each group, Significant differences of the post treatment mean values between both groups in favor of group (B) were recorded (p<0.05), Also it showed that insulin resistance decreased significantly within each group but had no significant difference between both groups. Conclusion: Both traditional moderate intensity exercise and high intensity exercise provided a significant increase in nitric oxide and decrease in insulin resistance. Moderate intensity exercise and high intensity exercise should be considered in the management and rehabilitation of type 2 diabetes mellitus.

Key words	**1.**	**nitric oxide**
	2.	**insulin resistance**
	3.	**moderate exercises**
	4.	**Type 2 Diabetic**
Classification number	**:**	**000.000.**
Pagination	**:**	**123 p.**
Arabic Title Page	**:**	**تأثير التمرينات مختلفة الشدة على مرضى السكرى (النوع الثاني)**
Library register number	**:**	**4705-4706.**

Author	**:**	**Hadeer Abd El Hay Abd El Hameed**
Title	**:**	**Histological changes of thoracic aorta after laser therapy in hypertensive rats**
Dept.	**:**	**Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.**
Supervisors	**1.**	**Abdel Razik Hussein Farrag**
	2.	**Akram Abd EL Aziz Sayd,**
	3.	**Shereen Hamed EL-Sayed**
Degree	**:**	**Doctoral.**
Year	**:**	**2016.**
Abstract	**:**	

Purpose: The aim of the present study was to investigate the effect of laser therapy on histological changes of thoracic aorta in hypertensive rats. Methods: This study was conducted on a total number of 35 hypertensive adult female albino rats, their body weight ranging from 100 to 150 g and age from 3 to 4 months. Five rats were served as a normal healthy control group; the remaining 30 rats were subjected to experimental induction of hypertension and divided into two equal groups (15 rats each) as treated and untreated subgroups. Hypertension was induced by daily oral administration of L- NAME (5 mg/rat) for one month. A tail cuff was used to measure blood pressure, Laser Therapy was used, the energy output of the treatment for a total of 16 minutes. Each acupoint (ST 36, LR3, pc-6, L1-11) for blood pressure, was received 4 minutes of treatment, after 1.5 month from treatment and 3 months after treatment the rats were anesthetized with light ether and aorta and heart were dissected out and fixed in 10% formal saline for 24 hours, histologically processed and examined. Results: there were significant increase in systolic blood pressure in expermintal induction L-NAME for 1 month and hypertensive untreated sub group in comparison with (normal) control group , on the other hand there were significant decrease in systolic blood pressure in treated group after 1.5 month in comparsion with normal group, and also there were significant decrease in systolic blood pressure after 3 month in comprsion with hypertensive untreated group , and there were also significant decrease in diastolic blood pressure in treated hypertensive group after three months in comparsion with hypertensive untreated group.Microscopic examination of the heart of experimental rats induction of hypertension after daily oral administration of L- NAME (5 mg/rat) for 1 month showed a separation of muscle fibers associated with intracardial congestion and hemorrhage, on the other hand rates treated with laser for 1.5 month showed regeneration of the cardiac muscle and intracardial congestion and hemorrhage, and after 3 months showed regeneration of the cardiac muscle. While, microscopic examination of the aorta of experimental rats induction of hypertension showed irregularity in the structure of the elastic fibrils in the tunica media, and also deterioration in the formation of elastic lamellae, Histopathological of aorta treated with laser for 1.5 showed progression of aorta intima and endothelial structure are attenuated , the other group treated with laser for 3 months showed intima with little endothelial cell drop, and media smooth muscle cells proliferated with uniform thickness and regular arrangement. In conclusion: Laser therapy has beneficial effect on hypertension as indicated by the changes in systolic and diastolic blood pressure and the histological changes of thoracic aorta.

Key words	**1.**	**Lasers**
	2.	**Blood pressure**
	3.	**Histological changes**
	4.	**hypertensive rats**
	5.	**L-NAME.**
	6.	**thoracic aorta**
Classification number	**:**	**000.000.**
Pagination	**:**	**79 p.**
Arabic Title Page	**:**	**التغيرات الهيستولوجية فى الشريان الأورطى بعد الليزر العلاجى فى حالات ارتفاع ضغط الدم فى الفئران .**
Library register number	**:**	**4767-4768.**

Author	**:**	**Lobna Ali Ali**
Title	**:**	**Nitric oxide response to aerobic versus anaerobic training in type 2 diabetic women**
Dept.	**:**	**Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.**
Supervisors	**1.**	**Zahra Mohamed Hassan Serry**
	2.	**Mohammed Mohammed El-Sawy**
	3.	**Hany Ezzat Obaya**
Degree	**:**	**Doctoral.**
Year	**:**	**2016.**
Abstract	**:**	

Background and purpose:Diabetes mellitus is a chronic syndrome with major implications on vascular system. The atheroticchangesin peripheral vasculature are affected by the level of nitric oxide, a mediator that has many effects on the vascular system. Exercise was proven to improve the levels of nitric oxide. The purpose of this study was to compare between the response of nitric oxide level (NOx) to aerobic versus anaerobic exercises in type 2 diabetic women.Methods and results: the study was conducted to measure the response of nitric oxide to aerobic versus anaerobic exercises in type 2 diabetic women. Forty subjects aging from 50-60 years old were selected from Kom Hamada General Hospital visitors.Theywere divided into 2 groups equal in number, group A and group B. Group A subjects engaged a moderate aerobic exercise program on treadmill for 3 months 3 times/week, with an intensity of 55-70 % maximum heart rate. Group B performed anaerobic exercise program in form of resistance training using various weights for specific muscles, 1 bout each consists of 8-10 sets for every individual muscle at 50 % of (1-RM) for 3 months 3 times/week.Results:The results showed that regarding group (A) there was a significant increase in the measures of nitric oxide (↑ 423.08%), and a significant decrease in the levels of both cholesterol (↓ 11.98%), and LDL (↓9.76%). There was a mild improvement in the values of HDL (↑1.97%) but it wasn't statistically significant as well as the decrease in the levels of HbA1c (↓ 5.21%). Group (B) results showed that there was a significant increase in the levels of nitric oxide (↑ 605.88%), and a significant decrease in the levels of cholesterol (↓14.65%) and LDL (↓ 16%).There was a mild increase the levels of HDL (↑ 1.98%) but it had no statistical significance, as well as for the decrease in the HbA1c levels (↓ 6.28%). Conclusion: The study concluded that anaerobic training has a significant improvement ofnitric oxide levels in diabetic women compared to aerobic training. While there was a significant improvement within group A. Recommendations are made to type 2 diabetic women to participate in a regular anaerobic activity in form of resistance training to improve their nitric oxide measures.

Key words	**1.**	**Nitric oxide**
	2.	**type 2 diabetic**
	3.	**Aerobic training**
	4.	**Anaerobic training**
	5.	**women**
Classification number	**:**	**000.000.**
Pagination	**:**	**75 p.**
Arabic Title Page	**:**	**استجابة أكسيد النيتريك للتمرينات الهوائية مقابل تمرينات اللاهوائية في حالات السكري النوع الثاني في السيدات.**
Library register number	**:**	**4759-4760.**

Author	**:**	**Manar Mohamed Badawy Mohamed**
Title	**:**	**Impact of Low Frequency Ultrasound and Lymphatic Drainage on Triglycerides with Coronary Atherosclerotic Patients**
Dept.	**:**	**Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.**
Supervisors	**1.**	**Zahra M.H Serry**
	2.	**Nesreen Ghareeb Elnahas**
	3.	**Basem Alzareef Fouad**
Degree	**:**	**Doctoral.**
Year	**:**	**2016.**
Abstract	**:**	

Purpose: The aim of this study was to determine the effect of low frequency ultrasound plus lymphatic drainage on Blood Triglycerides in Cardiac patients (chronic coronary atherosclerosis patients, with high ranges of fat mass and triglycerides). Methods: Forty female patients with age ranges from 40 to 50 years were selected from Palestine Hospital , They were Diagnosed as obese atherosclerotic patients and referred to physical therapy out patients clinic, they were assigned into 2 groups according to their BMI based on the classification of the world health organization ,Each patient in the two groups (Group A and Group B), Group A :20 patients with BMI ranged between (35 – 39.9) kg/ m^2 and Group B 20 patients with BMI ranged between (≥ 40) kg/m^2 .They were evaluated before and after 24 sessions of treatment program by using the combination of ultrasound and lymphatic drainage machine, The assessment of blood serum triglycerides by UDICHEM-310 ANALYSER, have been done before and after the end of 24 sessions and Re-assessment after 2 months from the last treatment session. The collected raw data were statistically analyzed to evaluate the results of the two groups to find out the effect of using the combination of ultrasound and lymphatic drainage machine on blood serum triglycerides. Results: The results of this study revealed statistically significant improvement of blood serum triglycerides before and after the treatment with more improvement had been achieved after 2 months after last session. Conclusion: low frequency ultrasound technique plus lymphatic drainage technique improve blood serum triglycerides of chronic coronary atherosclerosis patients, with high triglycerides.

Key words	**1.**	**Low Frequency Ultrasound**
	2.	**lymphatic System**
	3.	**Lymphatic Drainage**
	4.	**Coronary Atherosclerotic**
	5.	**Triglycerides**
Classification number	**:**	**000.000.**
Pagination	**:**	
Arabic Title Page	**:**	**تأثير الموجات فوق الصوتية ذات التردد المنخفض مع التصريف الليمفاوي على الدهون الثلاثية بمرضى تصلب الشرايين التاجية.**
Library register number	**:**	**4933-4934.**

Author	**:**	**Mohamed Abd El-Sattar Mohamed Hemida**
Title	**:**	**Effect of Aerobic Exercise Training on Cardiovascular Response in Type 1 Diabetic Autonomic Neuropathy**
Dept.	**:**	**Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.**
Supervisors	**1.**	**Awny Fouad Rahmy**
	2.	**Ayman Fathy Kaddah**
	3.	**Gihan Samir Mohamed**
Degree	**:**	**Doctoral.**
Year	**:**	**2016.**
Abstract	**:**	

Background: type 1 Diabetes Mellitus is a chronic, multifaceted disorder caused by reduction in insulin secretion. One complications of diabetes is cardiovascular autonomic neuropathy (CAN), which resulting in abnormalities in heart rate control and vascular dynamics. Subjects and Methods: Fifty diabetic patients type-1, form both sexes, with autonomic neuropathy, aged from 45 to 65 years old, they were chosen from National Institute for Diabetes and Endocrine Glands, They were assigned to two groups. Study group (A) included twenty five patients (19 men & 6 women), practiced a program of aerobic exercise with intensity from 60 to 75 % of maximal heart rate (HR_{max}) on treadmill for 40 minutes for 3 sessions / week for three months and received their medical. while control group (B) included twenty five patients (18 men & 7women) they received only their medical treatment. All patients had been evaluated to measure age, Body mass index (BMI), fasting blood glucose, heart rate (HR) responses to valsalva maneuver, HR response to deep breathing, HR response to change of position, systolic blood pressure (BP) response to valsalva maneuver , systolic BP response to sustained hand grip and systolic BP response to change of position. ECG machine and its accessories will be used to do stress test for each patient by attending physician and to monitor heart rate, rhythm, R-R interval and Q-T interval for each patient of both groups before and after the study program. Results: After completion of the study, a significant improvement was observed by decreasing in (BMI) (5.3 % ↓), fasting blood glucose (7.5 % ↓), (HR) responses to valsalva maneuver (4.7% ↓), HR response to deep breathing (4.4% ↓), HR response to change of position (4.4% ↓).also decreasing in systolic blood pressure (BP) response to valsalva maneuver (2.4% ↓) , systolic BP response to sustained hand grip (3.9% ↓) and systolic BP response to change of position (3.2% ↓) ($P < 0.05$), when compared to control group. Conclusion: Aerobic moderate intensity exercise training could improve cardio vascular responses in diabetic autonomic neuropathy. Aerobic exercise is a good method that improve cardiac autonomic neuropathy in type 1 diabetes mellitus.

Key words	**1.**	**Aerobic Exercise**
	2.	**type 1 diabetes mellitus**
	3.	**cardiac autonomic neuropathy**
Classification number	**:**	**000.000.**
Pagination	**:**	**107 p.**
Arabic Title Page	**:**	**تأثير التمرينات الهوائية على استجابة الجهاز الدورى فى مرضى السكر ى للنوع الأول المصحوب باضطرابات الجهاز العصبي اللاإرادي.**
Library register number	**:**	**5043-5044.**

Author	**:**	**Mohamed Ibrahem Mohamed Al-Ahwany**
Title	**:**	**Senobi versus Diaphragmatic Breathing Exercise to Ameliorate Depression in Obese Women**
Dept.	**:**	**Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.**
Supervisors	**1.**	**Azza Abd Elaziz Abd Elhady**
	2.	**Ahmed Anwar Shaheen**
	3.	**Gihan Samir Mohamed,**
Degree	**:**	**Doctoral.**
Year	**:**	**2016.**
Abstract	**:**	

Purpose: The aim of the currant study was to compare the effect of different breathing techniques, (Senobi breathing exercise (SBE) and Diaphragmatic breathing exercise (DBE)) for amelioration of depression in obese women. Subjects: Forty obese women aging from (40-50) years with body mass index 30-34.9kg/m^2 participated in this study. They were chosen from the Comprehensive Health insurance Clinic in Belbeis, Alsharkia Egypt. Methods: subjects were assigned randomly into two groups equally in number: Group (1) performed SBE for three times daily for one month and Group (2) performed DBE for three times daily for one month. Results: The results showed that both SBE and DBE were significantly ameliorating depression in obese women, the percentage of decrease in HAM-D scores was 27.4% in group (1) and 14.8% in group (2) also the urinary concentration of Estradiol and Growth hormones showed percentage of improvement by 193% and 246% in group (1) respectively and 96.9% and 100% in group (2) respectively. Moreover, SBE was better than DBE. Conclusion: Both SBE and DBE were effective physical therapy modalities to ameliorate depression in obese women, with SBE showing more significant improvement than DBE.

Key words	**1.**	**Obese Women**
	2.	**Depression**
	3.	**Senobi Breathing exercise**
	4.	**Diaphragmatic Breathing exercise**
	5.	**Obese Women**
Classification number	**:**	**000.000.**
Pagination	**:**	**84 p.**
Arabic Title Page	**:**	**تمارين سنوبي التنفسية مقابل تمارين الحجاب الحاجز على تخفيف الإكتئاب لدى السيدات البدينات.**
Library register number	**:**	**5025-5026.**

Author	**:**	**Mohamed Taha Said**
Title	**:**	**Cold Laser Versus Ultrasound Cavitation On Lipid Profile In Abdominal Obesity**
Dept.	**:**	**Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.**
Supervisors	**1.**	**Azza Abdel Aziz Abdel Hady**
	2.	**Soheir Abdel Fattah Abo El Fadl**
	3.	**Nesreen Ghareeb Elnhas**
Degree	**:**	**Doctoral.**
Year	**:**	**2016.**
Abstract	**:**	

The aim of this study was to compare between the effect of cold laser and ultrasound cavitation on lipid profile (serum total cholesterol, serum triglyceride, HDL and LDL levels) among abdominal obese women. Subjects and Method: Forty sedentary women were included in this study, they were recruited from outpatient clinic of Kasr Al Aini Hospital, their age ranged from 30 to 40 years, their body mass index ranged from 30.00 to 34.9 kg/m² and their waist circumference ranged from 91 to 122 cm. They were divided randomly into two equal groups in number; group-I: Twenty women received cold laser on abdomen for 30 minutes, 2 times per week for 6 weeks, while group-II: Twenty women received ultrasound cavitation on abdomen for 30 minutes, 2 times per week for 6 weeks. Serum lipid profile (total cholesterol, triglyceride, HDL and LDL levels); BMI and WC were measured at the beginning and end of the study for both groups. Results: Statistical analysis revealed that there was a significant decrease in serum total cholesterol, serum triglyceride, LDL, weight and WC levels with a percentage of change (decrease) of 7.28%, 13.26%, 6.79% 0.06% and 3.19 % respectively, while there was a non-significant change in HDL in group-I. In group-II there was a significant decrease in HDL, weight and WC levels with a percentage of change (decrease) of 4.83%, 1.40 % and 3.90 % respectively, while there is non-significant change in serum total cholesterol, triglyceride and LDL. Conclusion: These findings suggest that both cold laser and ultrasound cavitation can be effective methods to decrease waist circumference, weight and some indices of blood lipid profile. Hence, reduce the risk of cardiovascular complications in obese women.

Key words	**1.**	**cold laser**
	2.	**cholesterol**
	3.	**ultrasound cavitation**
	4.	**lipoproteins**
	5.	**triglycerides**
	6.	**abdominal obesity**
	7.	**Obesity**
	8.	**Lipid Profile In Abdominal**
Classification number	**:**	**000.000.**
Pagination	**:**	**102 p.**
Arabic Title Page	**:**	**الليزر البارد مقابل الموجات فوق الصوتية التجوفية على صورة الدهون في سمنة منطقة البطن.**
Library register number	**:**	**5207-5208.**

Author	**:**	**Mona Ahmed Ahmed Abdul Mohsen.**
Title	**:**	**Incentive Spirometer versus Resisted Breathing Exercises on Vital Capacity and Diaphragmatic Excursion Post-Liver Transplantation.**
Dept.	**:**	**Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.**
Supervisors	**1.**	**Hala Mohamed Ezz Eldeen**
	2.	**Essam Anwar Morsy**
	3.	**Samah Mahmoud Ismail**
Degree	**:**	**Doctoral.**
Year	**:**	**2016.**
Abstract	**:**	

Purpose: This study was conducted to compare the efficacy of incentive spirometer versus resisted breathing exercises on vital capacity and diaphragmatic excursion post-liver transplantation. Subjects: Forty patients of both sexes (25 men,15 women) underwent liver transplantation surgery with age ranged from 40 to 50 years participated in this study,They were recruited from liver transplant unit of El-Sahel Teaching Hospital and were divided randomly into two groups with equal numbers. The study was performed at the incubated ICU of liver transplantation. Both groups received routine post-operative chest physical therapy in the form of breathing exercises (diaphragmatic), coughing and early ambulation (walking), in addition to incentive spirometer (I.S) for group A and resisted diaphragmatic breathing exercises for group B,the study program was 3 days/week for 8 weeks. The vital capacity and diaphragmatic excursion were measured for the two groups before and after the treatment.Results: There was a significant increase of the vital capacity and the diaphragmatic excursion ($p<0.001$) in liver transplant patients. The vital capacity results of incetive spirometer (group A) and resisted diaphragmatic breathing (group B) were 57.74% and 45.07% respectively. The diaphragm excursion results of incetive spirometer (group A) and resisted diaphragmatic breathing (group B) were 76.64 % and 91.24 % respectively. Conclusion: The incentive spirometer training and resisted breathing exercises are considered effective rehabilitation methods that increase the vital capacity and diaphragmatic excursion in post liver transplantation patients.

Key words	**1.**	**Liver transplantation**
	2.	**Resisted breathing exercises**
	3.	**Vital capacity**
	4.	**Incentive spirometer**
	5.	**Diaphragmatic excursion**
Classification number	**:**	**000.000.**
Pagination	**:**	**177 p.**
Arabic Title Page	**:**	**المقياس الرئوي الحافز مقابل التمرينات الهوائية ذات المقاومة علي التهوية الرئوية وحركة الحجاب الحاجز بعد عملية زراعة الكبد.**
Library register number	**:**	**5185-5186.**

Author	**:**	**Rania Mohamed Abdelmohsen Elmahy**
Title	**:**	**Influence of Laser Puncture on Endothelial Dysfunction in Hypertensive Patients**
Dept.	**:**	**Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.**
Supervisors	**1.**	**Azza A. Abd El-Hady**
	2.	**Laila Ahmed Rashed**
	3.	**Gihan Samir Mohamed**
Degree	**:**	**Doctoral.**
Year	**:**	**2016.**
Abstract	**:**	

Background: Hypertension had a very high occurrence. Purpose: To investigate the influence of laser applied on acupuncture points on endothelial dysfunction in hypertensive obese patients. Methodology: sixty patients from both genders (36 men and 24 women) aged between 40-50 years old with pre and stage 1 hypertensive (the range 130 to 149 mm Hg systolic blood pressure and diastolic blood pressure in the range 85– 99 mm Hg) they were of class (I and II) of obesity with BMI ranged from 30.0:39.9kg/m^2, they were selected from internal medicine department and obesity unit of El Sahel Teaching Hospital; they were assigned into two groups equal in number. Group (A): received a program of aerobic exercises and laser on acupuncture points 16Joule/ point and group (B): received a program of aerobic exercises and sham laser (placebo) on acupuncture points. The program was 2 times per week for 24weeks. Blood pressure measurement by mercurial sphygmomanometer, urinary nitric oxide (NO) and blood superoxide dismutase (SOD) were measured at the beginning and at the end of the study. Result: There was a significant decrease in systolic blood pressure (↓ 10.40%) and diastolic blood pressure (↓ 12.50%) and a significant increase in nitric oxide (81.82%) and superoxide dismutase (78.72%) levels for study group andThere was a significant decrease in systolic blood pressure (↓ 8.02%) and diastolic blood pressure (↓ 9.86%) and a significant increase in nitric oxide (60.58%) and superoxide dismutase (50.00%) levels for control group, which means reduction in oxidative stress and improvement in endothelial function. Conclusion: Using laser puncture and aerobic exercise two times per week in hypertensive patients improved their Nitric oxide and Superoxide dismutase levels which important antioxidants in the body aiming to improve general health and reduce blood pressure.

Key words	**1.**	**Hypertension**
	2.	**Endothelial Dysfunction**
	3.	**Laser**
Classification number	**:**	**000.000.**
Pagination	**:**	**119 p.**
Arabic Title Page	**:**	**تأثير الليزر على نقاط الوخز على اختلال وظيفة بطانة الأوعية في مرضى ارتفاع ضغط الدم.**
Library register number	**:**	**5065-5066.**

Author	**:**	**Saif Eldeen Ahmed Ragab Mehmed**
Title	**:**	**Efficacy Of Vagus Nerve Stimulation In Bronchial Asthma**
Dept.	**:**	**Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.**
Supervisors	**1.**	**Awny Fouad Rahmy**
	2.	**Khaled Eid Sobhy**
Degree	**:**	**Doctoral.**
Year	**:**	**2016.**
Abstract	**:**	

Background: Asthma is a major public health problem worldwide, which when uncontrolled, can severely limit the patient's daily life. Between 300 and 400 million people worldwide suffer from asthma and about 250,000 people die each year. Physical therapy research is recommended to find techniques as substitutions or complementary for medications to reduce its use, dose and/or side effects. Purpose: to measure the efficacy of bilateral non-invasive cervical vagus nerve stimulation(nVNS) on ventilatory functions and perceived exertion of dyspnea in acute exacerbation of patients diagnosed with bronchial asthma. Subjects and procedures: 52 subjects divided to 10 normal and 11 diagnosed with bronchial asthma not in(acute attack) both 21 subjects were involved as a pre request to assess safety efficacy and any adverse effect of VNS both groups underwent pulmonary functions test (flow-volume curve)to measure (FVC,FEV1,PEF and FEF25-75 as % of predicted after that 31 patients in(acute attack) aged between 21-70 years were assigned randomly into two groups 2/1ratio: VNS group (I) 21 patients and sham VNS group (II) 10 patients both groups underwent pre and post treatment pulmonary functions test (flow-volume curve)to measure parameters of (FVC,FEV1,PEF and FEF25-75%) as % of predicted and modified borg scale of dyspnea(MBSD) to rate difficulty of breathing ,group (I) treated with VNS and group (II) with sham VNS for 20 minutes Results: for VNS group (FVC,FEV1,PEF and FEF25-75%) as a % of predicted showed significant increase and reversibility of 10.76%,10.19% , 10.43% and 10.40% respectively and for sham VNS showed decline of 0.4%,1.7%,5.5% and 6.8% respectively Conclusion: nVNS is effective ,safe and low cost treatment for dyspnea and bronchoconstriction and this may be attributed to VNS of afferent fibers with central desensitization reducing dyspnea and reflex release of catecholamines from suprarenal gland .

Key words	**1.**	**vagus nerve**
	2.	**bronchial asthma**
	3.	**ventilatory functions**
	4.	**dyspnea**
	5.	**acute exacerbation**
	6.	**electrical stimulation**
	7.	**Nerve Stimulation**
Classification number	**:**	**000.000.**
Pagination	**:**	**134 p.**
Arabic Title Page	**:**	**تأثير تنبيه العصب الحائر في الربوالشعبي.**
Library register number	**:**	**5157-5158.**

Author	**:**	**Sarah Medhat Mohammed Mohammed Kamel**
Title	**:**	**Effect of Cardiac Rehabilitation on Ejection Fraction after Percutaneous Coronary Intervention**
Dept.	**:**	**Physical Therapy Department for Cardiopulmonary Disorder and Geriatrics and its Surgery.**
Supervisors	**1.**	**Zahra M. Hassan Serry**
	2.	**Osama Sayed Abd El Moneem**
	3.	**Hany Ezzat Obaya**
Degree	**:**	**Doctoral.**
Year	**:**	**2016.**
Abstract	**:**	

The aim of this study was to determine the effect of cardiac rehabilitation (CR) on ejection fraction after percutaneous coronary intervention (PCI). Sixty patients of both sexes underwent PCI participated in this study. Their ages ranged from 45-60 years old. They were recruited from outpatient clinic of national heart institute (NHI) after one year of PCI procedure, Embaba, Giza. The study was conducted from April, 2014 to October, 2015. They were divided into 2 groups equal in number. The first group (study group): Thirty patients (21 men and 9 women) had received 50 minutes of moderate intensity aerobic exercise training in form of bicycle ergometer three times/week, day after day for 3 months with pharmacological and life style instructions. The second group (control group): Thirty patients (20 men and 10 women) had received the traditional cardiac care without any exercise training in form of routine pharmacological therapy and lifestyle education. Left ventricular ejection fraction (LVEF), left ventricle end diastolic diameter (LVEDD) and left ventricle end systolic diameter (LVESD) were assessed by Doppler echocardiography and quality of life (QoL) was assessed by Nottingham health profile (NHP) questionnaire before and after three month of CR program. The results of the study showed that there was significant increase in LVEF of the study group when comparing both groups, but LVEDD and LVESD did not show any significant changes. Percents of changes were (0.37%↑ and 5.3%↑ for LVEF, 0.59%↑ and 0.20 % ↑for LVEDD, 2.25 % ↓ and 1.43% ↓ for LVESD) for control and study groups respectively. Furthermore, there were statistical significant decreases (improve) of six domains of NHP questionnaire of the study group, and the control group did not show significant decreases. Percents of changes were (6.61%↓ and 33.44%↓ for energy level, 16.84%↓ and 41.06%↓ for pain, 10.98%↓ and 47.14%↓ for emotional reaction, 13.58%↓ and 40.09%↓ for sleep, 9.37%↓ and 34.80%↓ for social isolation, and 9.99%↓ and 42.67%↓ for physical ability) for control and study groups respectively. Comparisons between men and women for all parameters of the study were not significant. It was concluded that the exercise based CR program improve ejection fraction and QoL of patients after PCI.

Key words	**1.**	**Cardiac Rehabilitation**
	2.	**Ejection Fraction**
	3.	**Percutaneous Coronary Intervention**
Classification number	**:**	**000.000.**
Pagination	**:**	**106 p.**
Arabic Title Page	**:**	**تأثير تمارين تأهيل القلب على قوة ضخ الدم بعد عمليات القسطرة التداخلية.**
Library register number	**:**	**4859-4860.**