PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

Physical Therapy Department for Obstetrics and Gynaecology and Its Surgery

Master Degree

2018

Author	:	Asmaa Yossry Abdelrahman Ahmed.
Title	:	Effect of Different Types of Exercise on Menstrual
		Dysfunction and IgA in Female Athletes.
Dept.	:	Department of Physical Therapy for Health Women.
Supervisors	1.	Soheir Mahmoud Elkosery
	2.	Gihan Fathy Abdel Aziz
	3.	Doaa Ahmed Mohamed Osman
Degree	:	Master.
Year	:	2018.
Abstract	:	

This study was conducted to determine the effect of different types of exercise on menstrual dysfunction and serum IgA in female athletes. Twenty-eight female athletes participated in this study. Fifteen of them participated in aerobic exercise, while thirteen of them participated in anaerobic exercise. Their age ranged from 16 to 20 years old and their BMI ranged from 16 to 25 kg/m². The menstrual function was evaluated through a self-administered questionnaire and serum estradiol level while the immune function was assessed through serum IgA level. Results showed that there were non-significant differences between the aerobic and anaerobic groups regarding the percentage of eumenorrhea and menstrual dysfunction, menarche age, number of menstrual cycles in the last year, menstrual cycle length, serum estradiol and serum IgA levels (P>0.05). Additionally, there were non-significant correlations between serum estradiol and serum IgA in both aerobic and anaerobic groups (P>0.05). Consequently, it could be concluded that both aerobic and anaerobic exercises had the same impact on menstrual dysfunction and IgA in female athletes.

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Key words	1.	Aerobic exercise.
	2.	menstrual dysfunction.
	3.	anaerobic exercise
	4.	Estradiol.
	5.	IgA.
	6.	Female Athletes.
Classification number		000.000.
Pagination	:	86 p.
Arabic Title Page	:	تأثير أنواع مختلفة من التمرين علي إضطر البت الدورة الشهرية و الجلوبولين
		المن عي (أ) في الفتيات الرياضيات.
Library register number	:	5893-5894.

Author	:	Doaa Abd Al Nasser Abd Al Hady
Title	:	The effect of intermittent pneumatic compression belt on postnatal diastasis recti.
Dept.	:	Department of Physical Therapy for Health Women.
Supervisors	1.	Khadyga Sayed Abdul Aziz
	2.	Abd El Rahman Hegazy Abd El Wahab
	3.	Afaf Mohamed Mahmoud Botla
Degree	:	Master.
Year	:	2018.
Abstract	:	

PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

Aim: This study was conducted to determine the effect of intermittent pneumatic compression belt on postnatal diastasis recti. Subjects: Thirty postnatal women with diastasis recti participated in this study. They were selected from obstetrics and gynecology outpatient clinic at El-minia general hospital, their age ranged from 25-35 years and their BMI was 25-35kg/m², they were randomly distributed into two equal groups: Study group who received diet (1200 kcal/day), selected exercises program and intermittent pneumatic compression belt for six weeks and control group who received diet (1200 kcal/day) and selected exercises program for six weeks. Assessment of all women in both groups was carried out before and after treatment program through assessment of weight, BMI, waist circumference, W/H ratio, inter-recti distance(above and below umbilicus) and abdominal fat thickness. Results: the result of this study showed a statistical significant improvement (decrease) in weight, waist circumference, BMI, waist/hip ratio, inter-recti distance (above and below umbilicus) and abdominal fat thickness in both groups but in favoring to group A. Conclusion: usage of intermittent pneumatic compression belt is an effective method for reducing inter-recti separation and abdominal fat thickness in postnatal diastasis recti.

Key words	1.	Postnatal diastasis recti
	2.	intermittent pneumatic compression belt
	3.	Women - postnatal diastasis recti.
Classification number	:	000.000.
Pagination	:	87 p.
Arabic Title Page	:	تأثير الحزام الهوائي الضاغط المتقطع علي إنفراق العضلتين الباطنتين المستقيمتين بعد الولادة.
Library register number	:	5759-5760.

Author	:	Doaa Shaker Ahmed Abu Steit
Title	:	Effect of Shock Wave Therapy on Postpartum Low Back Pain
Dept.	:	Department of Physical Therapy for Health Women.
Supervisors	1.	Magda SayedMorsy
	2.	Mohamed Fawzy Abu Elenin
Degree	:	Master.
Year	:	2018.
Abstract	:	

PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

This study was conducted to determine the effect of shock wave therapy in treating postpartum low back pain. Thirty volunteers multiparous women suffering from postpartum low back pain for at least 3months following delivery were participated in this study. They were referred from the outpatient clinic of orthopedic and outpatient clinic of gynecology in Al- Agouza Police Authority Hospital. Their ages were ranged from 25-35 years old with a mean value 29.3±2.4 years. Their parity was ranged from (2-3) and their body mass index didn't exceed 30kg/m² with a mean value (26.11±1.76)kg/m². The patients were divided randomly into two equal groups (A&B). Patients in group A, (study group) were treated by shock wave therapy on the lumbar region in addition to performing abdominal strengthening exercises, posterior pelvic tilting together with postural correction exercises, 2 times per week for 4 weeks. Patients in group B, (control group) were asked to perform abdominal strengthening exercises, posterior pelvic tilting and postural correction exercises only, 2 times per week for 4 week. All patients in both groups (A&B) were evaluated by visual analogue scale (VAS) and plasma serotonin level before starting and after the end of treatment program. The results showed a highly significant ($p \le 0.0001$) decrease in VAS and an increase in plasma serotonin level after the treatment program in both groups, yet this decrease in VAS and the increase in serotonin plasma level were more pronounced and statistically significant ($p \le 0.0001$) in the study group when compared to the control group, So it could be concluded that shock wave therapy is an effective modality to alleviate postpartum low back pain.

Key words	1.	Shock wave therapy.
	2.	postpartum low back pain.
	3.	visual analogue scale.
	4.	abdominal exercises.
	5.	plasma serotonin level.
Classification number	:	000.000.
Pagination	:	124 p.
Arabic Title Page	:	تأثير الموجات التصادمية على آلام أسفل الظهر بعد الولادة.
Library register number	:	5735-5736.

Author	:	EL-Sayed Ragab EL-Sayed Mohamed:
Title	:	Effect of therapeutic exercises on pelvic inclination and low
		back pain during pregnancy
Dept.	:	Department of Physical Therapy for Health Women.
Supervisors	1.	Mohamed Ahmed Mohamed Awad
	2.	Asmaa Mahmoud El-bandrawy
	3.	Abdel Hamid Abdel Aziz Atta Allah
Degree	:	Master.
Year	:	2018.
Abstract	:	

PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

This study was conducted to determine the effect of therapeutic exercises on low back pain and the degree of pelvic inclination during pregnancy. Forty primigravida women in the 3rd trimester shared in this study. They were diagnosed as having pregnancy related low back pain and were selected from the outpatient clinic, Al Zahraa University Hospital in Cairo. Their ages were ranged between 20-35 years. Their body mass index did not exceed 35 Kg/m². They were assigned randomly into two groups equalin number (A&B):Group A:(Control group): 20 primigravida received superficial heat application at the lumbosacral area using an electric heating pad for 15 minutes from side lying position 3 times/week for 6 weeks and advice concerning low back pain during pregnancy. Group B: (Study group): 20 primigravida received the same treatment as group A in addition to specific exercises for low back pain3 times/week for 6 weeks. Intensity of low back pain and pelvic inclination angle were evaluated by VAS and Palpation Meter respectively before and after treatment program for both groups (A&B). Results showed that there is a statistically significant decrease in intensity of low back pain and a statistically highly significant increase in the degree of anterior pelvic tilt angle after treatment in both groups (A&B). When comparingboth groups together after treatment, there is a statistically highly significant decrease in low back pain in group B more than group A, while there was statistically significant increase in the degree of anterior pelvic tilt anglein group A more than group B.Also, there is a positive correlation between intensity of low back pain and the degree of anterior pelvic tilt angle during pregnancy. So, this study concluded that therapeutic exercises are considered an effective method for reducing low back pain and lessen the rate of increasing in the angle of pelvic inclination during pregnancy and confirmed that there is a positive correlation between intensity of low back pain and the degree of pelvic inclination angle during pregnancy.

Key words	1.	Therapeutic exercises
	2.	Pelvic inclination
	3.	Low back pain
	4.	Pregnancy
Classification number	:	000.000.
Pagination	:	111 p.
Arabic Title Page	:	تأثير التمرينات العلاجية علي درجة ميل الحوض و آلام أسفل الظهر أثناء الحمل.
Library register number	:	5785-5786.

Author	: Eman El Sayed Atta El Fekey	
Title	: Effect of Foot Reflexology on stress and anxiety	during
	pregnancy.	
Dept.	: Department of Physical Therapy for Health Women.	
Supervisors	1. Hala Mohamed Hanafy	
	2. Mohamed FawzyAbouElenin	
	3. GhadaEbrahim ElRefaye	
Degree	: Master.	
Year	: 2018.	
Abstract		

PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

This study was conducted to determine effect of foot reflexologyonstress and anxiety during pregnancy. Fifty pregnant women diagnosed clinically by gynecologist/ physician as primigravida at their third trimester, they were selected from outpatient clinic of obstetrics and gynecology in Damanhour Medical National Institute suffering from stress and anxiety based on psychiatric assessment. Their age ranged from 20 to 30 years. Their body mass index (BMI) \leq 30 kg/m². They were assigned randomly into two groups (A, B) equal in numbers. Group A (control group) received diaphragmatic breathing exercise, 5-10 minutes, 3-4 times per day as a home program and for 15 minutes per session for 6 weeks. While, group B (study group) received diaphragmatic breathing exercise plus reflexology on pressure points in feet for 30 minutes per session, 3 times/week for 6 weeks. Stress and anxiety were evaluated by blood pressure, pulse rate and Hamilton anxiety rating scale before and after the intervention. The obtained results of this study revealed that there was a statistical significant decrease in mean value of arterial blood pressure of study group (B) when compared with its corresponding value in control group (A) with p-value = 0.021, there was a statistical significant decrease in the mean value of heart rate of study group (B) when compared with its corresponding value in control group (A) with p-value = 0.012 and there was a highly statistical significant decrease in median value of Hamilton anxiety scale of study group (B) when compared with its corresponding value in control group (A) with p-value = 0.001. Therefore, it could be concluded that foot reflexology was very effective method in improving stress and anxiety during pregnancy.

Key words	1.	Pregnancy.
	2.	Stress.
	3.	Reflexology.
	4.	Anxiety.
	5.	Foot Reflexology during pregnancy.
Classification number	:	000.000.
Pagination	:	92 p.
Arabic Title Page	:	تأثير ريفليكسولوجي القدم على الضغط والقلق النفسي أثناء الحمل.
Library register number	:	5765-5766.

ELECTRONIC GUIDE TO THESES APPROVED BY PHYSICAL THERAPY DEPARTMENT FOR OBSTETRICS AND GYNAECOLOGY AND ITS SURGERY PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

Author	:	Eman Mahmoud Ibrahim Elbably.
Title	:	Effect Of Pilates Exercise On Primary Dysmenorrhea.
Dept.	:	Department of Physical Therapy for Health Women.
Supervisors	1.	Khadiga Sayed Abd El-Aziz
	2.	Asmaa Mahmoud Elbandrawy
	3.	Mohamad fawzy Abo El Enein
Degree	:	Master.
Year	:	2018.
Abstract	:	

Background: Primary dysmenorrhea complicates the lives among adolescents females, affects the quality of life of many women in their reproductive years. Pilates exercise is a safe, non invasive treatment modality to relief pain of primary dysmenorrhea. Aim of the study: To investigate the effect of Pilates exercises on primary dysmenorrhea. Subjects and methods: This study was carried out upon 30 girls ,their age ranged between 18-23years. They diagnosed as having primary dysmenorrhea with regular menstrual cycles. They were selected from students of Faculty of Physical Therapy, Cairo University with body mass index did not exceed 30kg / m². Participants were randomly assigned into two groups. Control group (A) received TENS (frequency 100Hz with pulse width of 95 microseconds) for 30 minutes once per day during the first three days of menstrual cycle for two consequtive cycle and the study group (B) received Pilates exercises in addition to TENS two times per week for two months. Assessment of all participants in both groups (A&B) was carried out through Visual analogue scale (VAS) and plasma cortisol level before and after treatment.Results: The results revealed a significant decrease in intensity of pain and plasma cortisol level for both groups (A and B) after the treatment program (study group, P<0.001&0.001 and control group, P<0.033&0.036) respectively but in favor of group B.There was a positive correlation between intensity of pain and the plasma cortisol level of pretreatment values where the r value equals (+0.571) with associated probability value of (0.001). Conclusion: Pilates exercises are effective, safe and non invasive therapeutic modality in reducing menstrual pain.

Key words	1.	Pilates exercise.
	2.	Primary Dysmenorrhea.
	3.	TENS.
	4.	Visual analogue scale.
	5.	Plasma cortisol level
Classification number	:	000.000.
Pagination	:	85 p.
Arabic Title Page	:	تأثير تمرينات البيلاتس علي عسر الطمث الاولي.
Library register number	:	6107-6108.

Author	: Ghada Mahmoud Mahmoud Abdel Hamid.	
Title	: Effect Of Aerobic Exercise On The Interle	ukin 6 In
	Postmenopausal Obese Women	
Dept.	: Department of Physical Therapy for Health Wome	n.
Supervisors	1. Khadija Sayed Abdul Aziz	
	2. Hossam Al Din Hussien Kamel	
	3. Marwa Abdel Rahman Mohamed	
Degree	: Master.	
Year	: 2018.	
Abstract	:	
Year	: 2018.	

PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

Obesity is an epidemic and a serious public health concern. The prevalence of obesity, which is closely associated with inflammatory markers risk, increases significantly in women after they reach age 45; the prevalence reaches 65% between 45 and 59 years, and 73.8% in women over age 60. The purpose: to investigate the effect of aerobic exercise on interleukin 6 in postmenopausal obese women. Methods: Thirty post menopausal obese women were recruited from EL SHEIKH ZAED AL NAHYAN hospital, their ages ranged from (45 - 55) years and their body mass index (BMI) ranged from (30-35) kg/m². All the participants were randomly divided into two groups equal in number group (A & B).Group (A)(Control group) fifteen women received a controlled balanced diet regime (Low caloric diet 1200 Kcal /day) for twelve weeks. And group (B)(Study group) fifteen women received the same controlled balanced diet regime as in group(A)(Control group) and aerobic exercise on a treadmill three times per week for twelve weeks. Interleukin- 6 was measured for all subjects participated in the study before and twelve weeks after the training program. And data obtained from both groups regarding weight, BMI, interleukin-6 and Vaginal Symptoms Questionnaire (VSQ) were statistically analyzed and compared. Results: The results of this study showed a statistically significant decrease in Interleukin-6 level in the participants of group (B)(Study group) (31.31%) more than group (A)(Control group) (11.06%) after using aerobic exercise on treadmill. Also there was a significant decrease in the VSO of group (B)(Study group) (44.61%) compared with that of group (A)(Control group) (25.1%) post treatment. Conclusion: The aerobic training on a treadmill is recommended for post-menopausal obese women due to its anti-inflammatory effect which in turn helping in decreasing the serum interleukin 6 level.

Key words	1.	Aerobic exercise.
	2.	Post-menopausal obese women
	3.	interleukin (6)
	4.	obese women in menopause.
Classification number	:	000.000.
Pagination	:	81 p.
Arabic Title Page	:	تاثير التمرينات الهوائيه علي الانترليوكين 6 في السيدات البدينات بعد انقطاع الطمث.
Library register number	:	6109-6110.

Author	: Mai Mohamed Sherif Mohamed.	
Title	: Effect of aerobic exercises on iron postnatal women	deficiency anemia in
Dept.	: Department of Physical Therapy for Hea	alth Women.
Supervisors	1. Hala Mohamed Hanafy	
	2. GhadaEbrahimElrefaye	
	3. Magdy Abdel-Rahman	
Degree	: Master.	
Year	: 2018.	
Abstract	:	

PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

This study was conducted to determine the effect of aerobic exercises on iron deficiency anemia in postnatal women. Fifty post natal women complain of iron deficiency anemia (diagnosied by gynacolgist/physician) shared in this study. Their ages were ranged from 20 to 35 years old, their body mass index were $<35 \text{ kg/m}^2$ and thir serum ferritin level were ranged from 30 to 70 ng/dl. They were devided randomly into two groups (A&B) equal in numbers, group A (study group) was treated by iron supplemnt tablets (ferrous sulfate 200 mg once per day), diet plan and aerobic exercises in a form of walking on elctrical treadmill (30 min/session, 3 times/ week for 3 months), while group B (control group)was treated by iron supplement tablets (ferrous sulfate 200 mg once per day) and diet plan only. Serum ferriten level, body weight and body mass index were measured befor and after performing the treatment program for both groups (A&B). The obtaied results showed that there was significant decrease (P<0.01) in the mean values of serum ferriten levels, body weight and BMI in group (A) post-treatment when it compared to pretreatment mean values , while in group (B) there was a statitcally significant increase (P<0.01) in the mean values of serum ferritin levels post-treatment when compared to pre-treatmen mean values and there is significant decreace in mean values of body weight in post-test when it compared to pretest mean values with no significant difference in mean values of BMI in pre and post-test. the percentage of decreasing in body weight was founded to be more in group (A) than group (B). Accordingly, it could be concluded that aerobic exercises had a negative effect on serum ferritin level in patients with iron defiency anemia during postnatal period.

E E		
Key words	1.	Iron deficiency anemia
	2.	Postnatal period
	3.	Serum ferritin
	4.	Aerobic exercises
	5.	Body mass index
	6.	women in postnatal
Classification number	:	000.000.
Pagination	:	89 p.
Arabic Title Page	:	تأثير التمرينات الهوائية على أنيميا نقص الحديد لدى السيدات في مرحلة ما بعد
)		الولادة.
Library register number	:	6185-6186.

PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

Author	:	Marwa Abdel-MoniemAhmed Biomy.
Title	:	Effect Of Aerobic Exercise On Bone Mineral Density In Lean
		Postmenopausal Women.
Dept.	:	Physical Therapy Department for Obstetrics and Gynaecology
		and its Surgery.
Supervisors	1.	Mohamed Ahmed Mohamed Awad.
	2.	Mohamed Riad Soliman.
	3.	Engy Mohamed Ibrahim El- Nahas.
Degree	:	Master.
Year	:	2018.
Abstract	:	

This study was conducted to determine the effect of aerobic exercises on bone mineral density in lean postmenopausal women. Forty osteoporotic lean postmenopausal women participated in this study. They were selected from physiotherapy department in Abu-Elmatameer General Hospital inAbu-Elmatameer city, Behera Governorate. Their ages were ranged from 49-69 years. Their body mass index (BMI) was less than 25 kg/m². Their T-Score was less than -2.5. Duration of this study was 6 months from January 2017 to July 2017. They were divided randomly into two groups equal in number (A and B). Group A (study group) performed aerobic exercise in the form of walking on treadmill, for thirty minutes, three times per week for twelve weeks, starting with warming up exercises and ended by cooling down exercises in addition to their usual daily calcium intake (calpreg tablets 1200 mg/day). Group B(control group) took only their usual daily calcium intake (calpreg tablets 1200 mg/day). All women in both groups (A and B) were assessed pre and post treatment through measuring bone mineral density (BMD) of lumbar regain, left femur and forearm by using DEXA. The results showed that: there was highly statistical significant increase in the mean values of BMD and T-score of lumbar spine, left femur and forearm post treatment in both groups A and B. There was no statistical significant difference between both groups (A&B) pre treatment in the mean values of BMD & T-score of lumbar spine, left femur and forearm where the p value was (> 0.05). While, post treatment there was a statistical significant difference between both groups (A&B) in the mean values of BMD & Tscore of lumbar spine, left femur and for arm where, the p value was (< 0.05) in favor of group A (more increase). It can be concluded that aerobic exercise has been shown to be effective in improving bone mineral density in lean post-menopausal women.

Key words	1.	Aerobic exercise
	2.	Bone mineral density
	3.	Post menopause
	4.	Women - Bone Mineral Density.
Classification number	:	000.000.
Pagination	:	101 p.
Arabic Title Page	:	تأثير التمرينات الهوائية علي كثافة العظام في السيدات النحيفات بعد انقطاع الطمث.
Library register number	:	6047-6048.

PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

Author	:	Marwa Mohamed Samir Abdelghani
Title	:	Positional Release Technique versus Stabilizing Exercise on
		Postpartum Low Back Pain
Dept.	•	Department of Physical Therapy for Health Women.
Supervisors	1.	Adly Ali Sabbour
	2.	Asmaa Mahmoud Faied
	3.	Abeer Mohamed El-Deeb
Degree	:	Master.
Year	•	2018.
Abstract	:	

Postpartum low back pain (LBP) is a common problem, which affects physical and social activities in women after delivery. Purpose: This study aimed to investigate the effect of positional release technique versus stabilizing exercise on LBP in postpartum women. Forty-five women, suffering from LBP during pregnancy and persisting after labor for more than 3 months, participated in this study; their age ranged from 20 to 35 years, and body mass index (BMI) was >25 kg/m2 and < 30 kg/m2. Patients were randomly distributed into 3 groups; group (A) received back care advices; group (B) received back care advices and stabilizing exercises 3 days/week for 12 weeks and group (C) received back care advices and positional release technique 3 days/week for 12 weeks. Pain intensity was measured by visual analogue scale (VAS); lumbar range of motion (ROM) was measured by inclinometer, and functional disability was measured by Oswestry disability index (ODI). Results: revealed that Group B and C showed highly significant decrease (P=0.0001) in pain intensity and ODI score and highly significant increase (p=0.0001) in spinal flexion, extension, right and left bending ROM after treatment. However, group A showed significant decrease only in pain intensity. Compared to group A, group C showed highly significant decrease in pain intensity (P=0.0001), and highly significant increase (P=0.0001) in spinal flexion, extension, right and left side bending ROM. However group B, in comparison with group A, showed highly significant decrease in pain intensity (P=0.0001) and highly significant increase in right side bending (P=0.001) and left side bending (P=0.002). Compared to group B, group C showed highly significant increase in spinal flexion ROM (P=0.0001). Positional release technique and stabilizing exercises are effective treatments in reducing pain, improving functional disability and increasing spinal ROM. However, positional release technique produces more percentage of improvement especially in spinal flexion ROM.

Key words	1.	Postpartum low back pain,
	2.	positional release technique.
	3.	stabilizing exercises.
Classification number	:	000.000.
Pagination	:	89 p.
Arabic Title Page	:	تقنية الإنفراج الوضعي مقابل تمريزات التثبيت على آلام أسفل الظهر ما بعد الولادة.
Library register number	:	6063-6064.

Author	:	Marwa Samir Mahmoud Abu Shady
Title	:	Effect of Pulsed Electromagnetic Field on Female Stress
		Urinary Incontinence
Dept.	:	Department of Physical Therapy for Health Women.
Supervisors	1.	Hala Mohamed HanafyOmara
	2.	Hossam Al-Din HussienKamel Salem
	3.	MarwaAbd El Rahman Mohamed
Degree	:	Master.
Year	:	2018.
Abstract	:	

PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

This study was conducted to investigate the effect of Pulsed Electromagnetic Field on Female Stress Urinary Incontinence (SUI). Fortymultiparous women were participated in this study and randomly divided into two equal groups; group A, received PEMF two times per week with pelvic floor exercises, group B, received pelvic floor exercises only. Their ages ranged between 30 to 40 years old, They were selected from the Outpatient Clinic of Gynecology of Al Mataria Teaching Hospital. Evaluations of both groups (A & B) were done before starting and after the end of the study(8weeks) through measuring their squeeze vaginal pressure using biofeedback and measuring scores of urogenital distress inventory questionnaire-short form (UDI-6). Results of this study showed a statistically significant increase in the mean valueof squeeze vaginal pressure in both groups (A&B) favoring group (A). There was a statistical significant decrease in the mean value of (UDI-6) in both groups (A,B) favoring group (A). There was a negative (an inverse) significant correlation between difference in squeeze vaginal pressure and difference in urogenital distress inventory questionnaire (UDI-6) in all patients.Conclusion, Pulsed electromagnetic field is an alternative, effective, safe, non-invasive and painless treatment method for treatment of female stress urinary incontinence.

Key words	1.	Stress urinary incontinence
	2.	Pulsed electromagnetic field
	3.	Biofeedback
	4.	Pelvic floor exercises
	5.	Female Stress Urinary Incontinence
Classification number	:	000.000.
Pagination	:	97 p.
Arabic Title Page	:	تأثير المجال الكهرومغناطيسي على السلس البولي الإجهادي لدى السيدات.
Library register number	:	5863-5864.

Author	:	Mina Nageb Soliman
Title	:	Effect of ultrasound versus low level laser therapy in
		treatment of postnatal low back pain
Dept.	••	Department of Physical Therapy for Health Women.
Supervisors	1.	Mohamed Ahmed Mohamed Awad
	2.	Asmaa Mahmoud Aly El Bandrawy
	3.	Abdel Hamid Abdel Aziz Atta Allah
Degree	••	Master.
Year	:	2018.
Abstract	:	

PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

This study was carried out to compare between the effect of ultrasound and low level laser in treatment of postnatal low back pain. Thirty women were diagnosed with postnatal low back pain shared in this study. The study was conducted from June to December 2016. They were selected randomly from outpatient clinic of obstetrics department at Al Zahraa University Hospital in Cairo, Al Azhar University. Their ages ranged from 20 to 35 years old and their body mass index (BMI) did not exceed 30 kg/m². Patients with spinal fracture, lumbar spinal stenosis from lumbar disc herniation, degenerative joint diseases, or spondylolisthesis, women with BMI exceed 30 kg/m², patients who had polyneuropathy or other neurological disorders and patients with skin diseases interferes with ultrasound or laser application are excluded from the study. They were divided randomly into two groups equal in number; Group (A) consisted of 15 women and treated by therapeutic ultrasound three times per week for 4 weeks. Group (B) consisted of 15 women and treated by low level laser therapy three times per week for 4 weeks. Evaluations of all patients in both groups (A&B) were done before and after the treatment program through measuring pain intensity using VAS, lumber flexion and extension range of motion using Modified Schober method as well as lateral flexion for right and left sides using tape measurement. Results showed that: There was a statistically significant improvement of pain intensity, significant improvement of lumbar flexion, extension ROM and significant improvement of lateral side bending for right side and left side in both groups (A&B) when comparing post-treatment values to its corresponding pre-treatment values. When comparing both groups together, LLLT group (B) showed significant decrease in pain intensity, significant increase in lumbar flexion and extension and significant improvement of trunk side bending for right side and left side compared with ultrasound group (A). From the previous finding, the study revealed that both ultrasound and low level laser therapy are effective modalities for treating post-natal low back pain. LLLT is better than ultrasound in decreasing pain intensity and increasing lumbar flexion, extension and lateral side bending ROM.

Key words	1.	Ultrasound.
	2.	Postnatal low back pain.
	3.	Low back pain.
	4.	Low level laser therapy.
Classification number	:	000.000.
Pagination	:	98 p.
Arabic Title Page	••	تأثير الموجات فوق الصوتية مقابل العلاج بالليزر منخفض الشدة على علاج آلام
		أسفل الظهر بعد الولادة.
Library register number	:	5873-5874.

Author	:	Miral Saleh Mohammed Mohamed
Title	:	Effect of Cryolipolysis and Electroliplysis on Post Menopausal
		Abdominal Adiposity
Dept.	:	Physical Therapy Department for Obstetrics and Gynaecology
		and its Surgery.
Supervisors	1.	Khadiga Said Abd El Aziz
	2.	Amir Arabi Gabr
	3.	Marwa Abd El Rahman Mohammed
Degree	:	Master.
Year	:	2018.
Abstract	:	

PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

This study was conducted to determine the effect of cryolipolysis and electrolipolysis on postmenopausal abdominal adiposity. Fourty five post menopausal women participated in this study from the outpatient clinic of obstetrics and gynecology at Kasr Al Aini Hospital. Their age ranged from (45-55) years, BMI was > 30kg/m² and waist hip ratio was > 0.85. They were assigned randomly into three equal groups (A,B&C). Patients of group (A) received cryolipolysisand low calorie diet (1200 Kcal/day). While patients of group (B) received electrolipolysis and low caloric diet as in group (A). And patients of group (C) received cryolipolysis and electrolipolysis and low caloric diet (1200 Kcal/day). Evaluation pre and post study was done by measuring waist circumference (evaluated by tape measurments), suprailiac skin fold (evaluated by body fat caliper) and body weight, waist hip ratio, body mass index, abdominal fat percentage (evaluated by bioelectrical impedance analysis). Results showed that there was a significant decrease in waist circumference, suprailiac skin fold, body weight, waist hip ratio, body mass index and abdominal fat in the three groups A, B and C when comparing between pre and post study results in groups (A, B and C). On comparing results of the three groups post treatment, there were significant differences between the three groups, as: There were significant differences in WC, WHR and trunk fat % in group (A) than group (B) and non significant differences between SISF, BW and BMI in group (A) than group (B), while there were significant differences in BW, BMI, and SISF in group (A) than group (C), while non significant differences between WC, WHR and trunk fat % in group (A) than group (C) and finally there were significant differences in BW, BMI, WC, SISF, WHR and trunk fat % in group (B) than group (C). Thus, it can be concluded that Crvolipolysis and Electrolipolysis are effective in reducing abdominal adiposity in post menopausal women.

menopuusui women.		
Key words	1.	Cryolipolysis.
	2.	Low caloric Diet.
	3.	Electrolipolysis
	4.	Post Menopausal
	5.	Abdominal Adiposity
Classification number	:	000.000.
Pagination	:	118 p.
Arabic Title Page	:	تأثير تفتيت الدهون بالتجميد و التحليل الكهربائي علي سمنة البطن في السيدات بعد
		انقطاع الطمث.
Library register number	:	5733-5734.

Author	:	Mohamed Mokhtar Amin Abo-Zaid.
Title	:	Aerobic versus strengthening exercises on fibromyalgia in postmenopausal women.
Dept.	:	Department of Physical Therapy for Health Women.
Supervisors	1.	Hala Mohamed Hanafy.
	2.	Hossam El Din Hussein Kamel.
	3.	Ghada Ebrahim El Refaye.
Degree	:	Master.
Year	:	2018.
Abstract	:	

PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

This study was aimed to determine which is more effective in alleviating pain and fibromyalgia symptoms; aerobic exercises or strengthening exercises in postmenopausal women. Sixty postmenopausal women with FMS were selected according to American College of Rheumatology (ACR) criteria from the physical therapy department in Naser General Hospital to share in this study, their age ranged from 50-60 years and their body mass index (BMI) did not exceed 30 kg/m², the participants were assigned into two groups of equal numbers. The group (A) received aerobic exercise program, in the form of treadmill 2 times/week for 8 weeks. Each session took about 30 minutes, while the group (B) received strengthening exercises for the four limbs and trunk using their body weight or resistance band (Thera band) 2 times/week for 8 weeks. Each session took about 30 minutes. All subjects in both groups were assessed through the visual analogue scale (VAS) for pain and the fibromyalgia impact questionnaire (FIQ) for the fibromyalgia related symptoms. The results of the present study revealed that there was a statistically significant improvement in both pain and fibromyalgia related symptoms in group (A) than in group (B). It seems that aerobic exercises is more effective than strengthening exercises in relieving pain and fibromyalgia related symptoms in postmenopausal women.

Key words	1.	Aerobic exercises.
	2.	Fibromyalgia.
	3.	Postmenopausal women
	4.	Strengthening exercises.
	5.	women in postmenopausal.
Classification number	:	000.000.
Pagination	:	97 p.
Arabic Title Page	:	التمارين الهوائية في مقابل تمارين التقوية علي متلازمة الألم العضلي الليفي لدي
		النساء بعد انقطاع الطمث.
Library register number	:	6117-6118.

PREPARED	BY	NERVEEN	ABD	БL	SALAM	ABD	ЪL	KADER	AHMED

Author	:	Nessrin Philip Bassaly
Title	:	Effect of Continuous Versus Intermittent Exercises on Bone
		Metabolism in Postmenopausal Women
Dept.	:	Department of Physical Therapy for Health Women.
Supervisors	1.	Hala Mohamed Hanafy
	2.	Hossam El Din Hussein Kamel
	3.	Wafaa Mohammad Kamal
Degree	:	Master.
Year	:	2018.
Abstract	:	

Background: physical exercise plays a role in the maintenance of the skeleton, but the specific mechanisms by which exercise increases bone mass are not understood. Purpose: The purpose of this study was to investigate the effect of continuous versus intermittent aerobic exercise on serum parathyroid hormone (PTH), ionized calcium (Ca²⁺) and bone alkaline phosphatase (B-ALP). Subjects: Thirty postmenopausal women aged between 50–60 years were randomly assigned into two groups: Continuous exercise group (A) (n=15), and intermittent exercise group (B) (n=15). Materials and Methods: Continuous exercise consisted of walking exercise on treadmill for 40 minutes with moderate exercise intensity at 60%-70% of maximal heart rate. Intermittent exercise comprised walking exercise on treadmill for 20 minutes then 40 minutes of rest period followed by 20 minutes walking exercise with moderate exercise intensity 60%-70% of maximal heart rate for each period. Venous blood samples were collected immediately before and after the exercise session in both groups. Post ExercisesResults: The PTH was significantly higher in both groups (P<0.001), but it was significantly higher (p<0.05) in continuous exercise group compared to intermittent exercise group. TheCa²⁺decreased significantly in both groups (P<0.001), while it wassignificantly decreased (p<0.05) in continuous exercise group compared to intermittent exercise group. The B-ALP was increased significantly in both groups (P<0.001), but it was significantly higher in intermittent exercise group compared to continuous exercise group. Conclusions: It could be concluded firstly that rest period between two bouts of aerobic exercise might have similar effects to intermittent secretion of PTH; Secondly that aerobic exercise programs could build bone most effectively if it is partitioned into smaller periods of exercise separated by rest periods.

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Key words	1.	Continuous exercises
	2.	Intermittent exercises
	3.	Bone Metabolism
	4.	Postmenopausal Women
	5.	Women in Postmenopausal
Classification number	:	000.000.
Pagination	:	97 p.
Arabic Title Page	:	تأثير التمرينات المستمرة مقابل التمرينات المتقطعة على أيض العظم لدى السيدات
		بعد انقطاع الطمث.
Library register number	:	6199-6200.

Author	:	Nouran Mahmoud Ibrahim Awad.
Title	:	Effect of endermology on postpartum abdominal obesity.
Dept.	:	Department of Physical Therapy for Health Women.
Supervisors	1.	Soheir Mahmoud el-kosery.
	2.	GhadaEbrahim El refaye.
	3.	GihanFathy Abdel Aziz.
Degree	:	Master.

2018.

:

Year

PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

Abstract : This study was conducted to determine the effect of endermology on postpartum abdominal obesity. Fifty postpartum women diagnosed clinically by gynecologist/ physician as postpartum women with abdominal obesity; they were selected from outpatient clinic of obstetrics and gynecology in Damanhour Medical National Institute. They suffered from abdominal obesity based on BMI, waist hip ratio and skin fold thickness assessment. Their age ranged from 25 to 35 years. Their body mass index (BMI) \ge 30 kg/m². They were assigned randomly into two groups (A, B) equal in numbers. Group A(control group) received aerobic exercise, 30 minutes, 3 times per week for 6 weeks. While, group B (study group) received aerobic exercise plus endermology on abdomen for 30 minutes per session, 3 times/week for 6 weeks. Abdominal obesity was evaluated by BMI, waist hip ratio and skin fold thickness assessment before and after the intervention. The results of this study revealed that there was astatistically highly significant decrease in mean value of waist hip ratio, skin fold thickness of study group (B) who received endermology and aerobic exercise when compared with its corresponding value in control group (A) who received aerobic exercise only. Therefore, it could be concluded that endermology was an effective method in decreasing postpartum abdominal obesity.

Key words	1.	Postpartum
	2.	abdominal obesity
	3.	endermology
Classification number	:	000.000.
Pagination	:	91 p.
Arabic Title Page	:	تاثير الإندر مولوجي علي سمنة البطن بعد الولادة.
Library register number	:	6149-6150.

Author	:	Peter Bahgat Milad
Title	:	Effect of continuous therapeutic ultrasound and stretching
		exercise on calf muscle cramp during pregnancy.
Dept.	:	Department of Physical Therapy for Health Women.
Supervisors	1.	Hala Mohamed Hanafy
	2.	Marwa Abd El Rahman Mohamed
	3.	Amir Arabi Gabr
Degree	:	Master.
Year	:	2018.
Abstract	:	

PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

Objectives: This study aimed to investigate the effect of continuous therapeutic ultrasound and stretching exercise on calf muscle cramp during pregnancy. Design: Randomized clinical trial. Location: This study conducted at Nahea Family medical center, Giza, Egypt. Subjects: Thirty volunteers of pregnant women suffering from calf muscle cramp assigned into two equal groups. Their ages ranged from 20-35 years. Intervention: Group (A): received home program education about stretching exercise, calf muscle self stretching exercise to be applied during cramp and general advice to decrease the severity and frequency of muscle cramp. Group (B): received the same as in group(A) in addition to continuous therapeutic ultrasound with frequency 1 MHz, intensity 1.5w/cm², 5 minutes in each session and stretching exercise of calf muscle by 15 seconds of passive stretch to the calf muscle followed by 30 seconds of rest with repetition 6 times per session. Treatment sessions were applied 3times/ week for 4 weeks for two groups. Outcome measures: standardized cramp questionnaire with description of muscle cramps with Visual analogue scale was used to assess severity and frequency of pain. Evaluation was performed before and after treatment. Results: There was no significant difference between control and study group in pre and post treatment in severity of cramp exaggerating factors, localization of cramp. There was significant difference between study group and control group in frequency, time of having cramp, duration of cramp and Quality of life deterioration. Conclusion: stretching exercise is an effective method in treating calf muscle cramp during pregnancy, adding therapeutic continuous ultrasound to stretching exercise is making significant difference than stretching exercise alone in decreasing the frequency of calf muscle cramp, decreasing time of having cramp, decreasing duration of muscle cramp and in decreasing the deterioration of quality of life due to muscle cramp during pregnancy

quality of file due to muscle of	ci aiii	b during pregnancy.
Key words	1.	US.
	2.	Calf.
	3.	pregnancy.
	4.	cramp.
	5.	stretching exercise.
Classification number	:	000.000.
Pagination	:	98 p.
Arabic Title Page	:	تأثير الموجات فوق الصوتية العلاجية المستمرة و تمارين الاستطالة على الشد
		العضلى لعضلة السمانة اثناء الحمل.
Library register number	:	5775-5776.

Author	:	Radwa Ayad Mohamed ElSaid
Title	:	Effect of Aerobic Exercise on Menstrual Dysfunction in
		Volleyball Players
Dept.	:	Department of Physical Therapy for Health Women.
Supervisors	1.	Hala Mohamed Hanafy Emara,
	2.	Hossam Al-Din Hussein Kamel
	3.	Abeer Mohamed ElDeeb
Degree	:	Master.
Year	:	2018.
Abstract	:	

PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

This study was conducted to evaluate the effect of replacing a part of the training regimen with low intensity aerobic exercise on menstrual function and bone mineral density (BMD) in volleyball players. Fortygirl's (volleyball players) experiencing menstrual dysfunction were randomly distributed into two groups. The control group received deep breathing exercises, nutritional recommendation and medical treatment in the form of vitamin B₆, Ca supplements and minerals once daily for 24weeks while, the study group received the same treatment, as well as replaced a part of the training with a program of low intensity aerobic exercise for 24 weeks. Serum estradiol, number of menstrual cycles in the last year, menstrual cycle length and BMD measurements were evaluated pre and post-treatment.Results: Control group showed non-significant difference in serum estradiol (P=0.457), number of menstrual cycles (P=0.678), menstrual cycle length (P=0.600), L1-2BMD (P=0.335) and right femoral neck (P=0.791) post-treatment. Study group showed significant increase in serum estradiol (P=0.003) and number of menstrual cycles (P=0.0001) and significant decrease in the menstrual length (P=0.0002), as well as non-significant difference in L1-2 BMD (P=0.094) and right femoral neck BMD (P=0.241) post-treatment. Compared to control group, the study group showed significant increase in the number of menstrual cycles (P=0.0003) and significant decrease in the menstrual length (P=0.0009), however non-significant difference in serum estradiol (P=0.312), L1-2 BMD(P=0.145) and right femoral neck (P=0.202). It can be concluded that replacing a part of training with a program of low intensity aerobic exercise, improved the number of menstrual cycles in the last year and with the menstrual cycles length in volleyball **Players**

Key words	1.	Aerobic Exercise.	
	2.	Volleyball Players.	
	3.	Menstrual Dysfunction.	
Classification number	:	000.000.	
Pagination	:	77 p.	
Arabic Title Page	:	تأثير التمرينات الهوائية على إضطرابات الدورة الشهرية للاعبات الكرة الطائرة .	
Library register number	:	5761-5762.	

PREPARED	BY	NERVEEN	ABD	EL	SALAM	ABD	EL	KADER	AHMED

Author	•	Reham Salah Al Din Ebrahim
Title	:	Effect of aerobic exercise on inflammatory cytokine levels in postmenopausal women
Dept.	:	Physical Therapy Department for Obstetrics and Gynaecology and its Surgery.
Supervisors	1.	Sohier Mahmoud El Kosery
	2.	GihanFathy Abdel Aziz
	3.	Engy Mohamed El- Nahas
Degree	:	Master.
Year	:	2018.
Abstract	•	

The main objective of this study was to determine the effect of aerobic exercise on inflammatory cytokine levels in postmenopausal women. Thirty post-menopausal womenwere selected from Ain shams University. Their ages ranged from 44 to 55 years, they were divided randomly according to closed numerical envelop into two groups equal in number, study group (group A) who performed aerobic exercises in form of walking on treadmill for 30 min/day, 3 times per week for 12 weeks, at 55% of maximum HR, and control group (group B) who didn't perform any kind of aerobic exercise and instructed to maintain their current physical activity levels during the study.Before starting and at the end of study, all participants were assessed by measuring the level of IL-6 (pro-inflammatory) and FSH. The results of this study showed that there was a non statistical significant difference in the level of IL-6 and FSH pretreatment in both groups, while post treatment there was a highly statistical significant difference in the level of IL-6 and FSH (p value < 0.005) in favor of group (A). It could be concluded that aerobic exercise was effective in decreasing inflammatory cytokine levels in postmenopausal women.

Key words	1.	Postmenopausal
	2.	Inflammatory cytokine levels
	3.	Aerobic exercise.
	4.	aerobic exercise on inflammatory cytokine
	5.	women in postmenopausal
Classification number	:	000.000.
Pagination	:	83 p.
Arabic Title Page	:	تأثير التمارين الهوائية على مستويات السيتوكيناتالإلتهابية في السيدات فترة ما بعد
		انقطاع الطمث
Library register number	:	5977-5978.

Author	:	Sara Asem Abd El-Ghaffar Amr
Title	:	Effect of Arch Support on Prevention of Foot Pain During
		Pregnancy.
Dept.	:	Department of Physical Therapy for Health Women.
Supervisors	1.	Mohamed Ahmed Mohamed Awad
	2.	Abd El-Hamid Abd El-Aziz Atta Allah
	3.	Afaf Mohamed Mahmoud Botla
Degree	:	Master.
Year	:	2018.
Abstract	:	

PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

This study was conducted to investigate the effect of arch support on prevention of foot pain during pregnancy. Sixty pregnant women shared in this study. They were selected randomly from Al-Zahraa university hospital, Al-Azhar University, in Cairo. Their ages were ranged from 20 to 30 years old and their BMI were less than 30 Kg/m². They were divided randomly into two groups equal in number: Group A (Control group) which consisted of 30 pregnant women received no intervention and group B (Study group) which consisted of 30 pregnant women wore arch support from the beginning of 2nd trimester till 6 weeks postpartum. All women in both groups were evaluated through navicular index (NI) and visual analog scale (VAS) at the beginning of the 2nd trimester(at the beginning of the 4th month of pregnancy), at the end of third trimester (at the end of 9th month of pregnancy) and at the end of puerperium (six weeks postpartum). Results of this study revealed that there was no statistically significant difference in navicular index between both groups (A and B) at the 4th month of pregnancy and after six weeks postpartum (p=0.403). But there was statistically significant difference between them at 9th month of pregnancy in favour of group B (decrease) (p=0.002). There was a statistically significant difference in VAS between both groups at both 9th month of pregnancy and 6 weeks postpartum in favour of group B (decrease) (p= 0.001). Accordingly, it can be concluded that wearing arch support prevents foot pain during pregnancy.

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Key words	1.	Arch support
	2.	Foot pain
	3.	Pregnancy
	4.	Women - Foot Pain.
Classification number	:	000.000.
Pagination	:	78 p.
Arabic Title Page	:	تأثير دعم قوس القدم علي الوقاية من ألم القدم أثناء الحمل.
Library register number	:	6049-6050.

Author	:	Sara Mohamed Esmaiel
Title	:	Intermittent versus continuous exercises on weight loss of
		obese postmenopausal women
Dept.	:	Department of Physical Therapy for Health Women.
Supervisors	1.	Mohamed Ahmed Mohamed Awad
	2.	Mohamed Mohamed Al Hoseny
	3.	Engy Mohamed Ibrahim Elnahas
Degree	:	Master.
Year	:	2018.
Abstract	:	

PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

This study was conducted to determine the effect of intermittent versus continuous exercises on weight loss of obese postmenopausal women. This study was conducted on sixty obese post menopausal women; they were selected from Port Said Teaching Hospital. They were randomly divided into two equal groups. Group A (Intermittent exercises group): It consisted of thirty women who preformed intermittent exercise in the form of treadmill walking for two sequences 36 sessions each 30 min. separated by 1 hour of passive recovery, 3 times / week for 12 weeks in addition to diet program. Groups B (Continuous exercises group): It consisted of thirty women who preformed continues exercise in the form of treadmill walking for continuous 30 min without rest, 3 times/week, for 12 weeks in addition to diet program. BMI was assessed by using weight-height scale. Abdominal circumference was assessed by using tape measurement. Skin fold was assessed by using skin fold caliper. The results of this study showed that, there was significant decrease in BMI in both groups (A & B) post treatment. There was no significant difference between both groups (A & B) pre treatment and post treatment. There was significant decrease in abdominal circumference and skin fold in both groups (A & B) post treatment. When comparing post treatment values, there was significant difference between both groups A and B (more decrease in group A). So, it can be concluded that both intermittent and continues exercises are effective in reducing obesity in post-menopausal women. But intermittent exercises are effective more than continuous exercises in reducing abdominal obesity in post-menopausal women.

Key words	1.	Intermittent Exercises	
	2.	Continuous Exercises.	
	3.	Postmenopausal.	
	4.	weight loss	
	5.	obese postmenopausal women	
Classification number	:	000.000.	
Pagination	:	92 p.	
Arabic Title Page	:	تأثير التمرينات المتقطعة مقابل التمرينات المستمرة على فقدان الوزن لدى السيدات	
		البدينات بعد إنقطاع الطمث.	
Library register number	:	5855-5856.	

Author	:	Suzy Samih Nazmy.
Title	:	Effect of Compression Therapy Versus Calf Muscle
		Strengthening Exercise on Varicose Vein in Obese Post-
		Menopausal Women.
Dept.	:	Department of Physical Therapy for Health Women.
Supervisors	1.	Amel Mohamed Yousef
	2.	Mohmed Hasan Mostafa,
	3.	Gehan Ali Ebd El- Samea
Degree	:	Master.
Year	:	2018.
Abstract	:	

PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

Background: It is generally believed that women are more commonly affected by varicose veins than men and most studies have shown a female predominance of varicose veins. Obesity has been identified as a risk factor associated with the development of chronic venous disease. Purpose of study: was conducted to compare between the effect of compression therapy and calf muscles strengthening exercise on varicose veins in obese post-menopausal women. Subjects and methods, Thirty obese post menopausal women complaining from unilateral leg varicose veins were selected from out patient clinic El Kasr El Ainy-University Hospital, their age ranged between 48-65 years old and their Body mass index (BMI) ranged from 30 to 35 kg/m². They were divided randomly into two groups equal in number : Group A consists of fifteen women, they received compression therapy on affected leg just above the toes until the level of the thigh for 20 minutes three session per week for 4 weeks. Group B consists of fifteen women. They performed calf muscles strengthening exercise, 10 repeations for each exercise -three sessions per week for 4 weeks. Doppler ultra sound is used to assess diameter of Short Saphenous Vein(SSV), Lowenberg provaction test was used to assess venous capacitance and Pain Intensity scale to measure pain intensity for both groups (A&B) before and after treatment. Result: Mixed design MANOVA was used to compare the tested variables of interest at different tested groups and measuring periods, the results within groups showed that there was statistically significant difference in diameter of SSV in group (A), Lowenberg Provaction test and Pain Intensity scale in groups (A&B) in favor to group A. Comparison between groups(A&B) at pre as well as post treatment showed non statistically significant difference in all parameters Except Lowenberg Provaction test show significant difference post treatment in favor to group(A) than (B) (p>0.05) Conclusion: There was clinical improvement with compression Therapy than calf muscles strengthening exercise.

Key words	1.	varicose vein.	
	2.	compression therapy.	
	3.	Menopause.	
	4.	Obesity.	
	5.	Calf Muscle Strengthening.	
	6.	Women in Menopausal.	
Classification number	:	000.000.	
Pagination	:	75 p.	
Arabic Title Page	:	تأثير العلاج بالضغط مقابل تمرينات التقوية لعضلة بطن الساق وعلاقتها بالدوالي في السيدات البدينات بعد انقطاع الطمث	
		في السيدات البدينات بعد انقطاع الطمث	
Library register number	:	6147-6148.	

PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED

Author	:	
Title	:	
Dept.	:	Department of Physical Therapy for Health Women.
Supervisors	1.	
	2.	
	3.	
Degree	:	Master.
Year	:	2018.
Abstract	:	
Key words	1.	
	2.	
	3.	
	4.	
	5.	
Classification number	:	000.000.
Pagination	:	р.
Arabic Title Page	:	
Library register number	:	0.