Doctoral Degree

Physical Therapy
Department for
Cardiopulmonary
Disorder and
Geriatrics and its
Surgery

: Eman Yassin Salim Abdou. **Author**

Title : Low intensity laser therapy versus

cardiac rehabilitation program for ischemic heart disease patients.

: Physical Therapy Department of Dept.

Cardiopulmonary Disorder

Geriatrics.

: Nagwa Mohamed Hamed Badr, **Supervisors**

Mostafa Abd El- Salam, Zienab

Mohamed Helmy.

Degree : Doctoral.

Year 2001.

Abstract

Arabic Title Page :

The aim of this study is to investigate the effect of laser therapy as a new trend for improving L.V. function versus C.R in patients with IHD to disease. Sixty patients aged 45-70 years old were selected form national heart institute- Imbaba- Cairo. they were randomly assigned into 4 groups, each consisted of 15 patients. first group received laser therapy, second group enrolled in an exercise training program, third group received laser therapy and exercise training, and the fourth groups their medication only. Assessment was cardiopulmonary stress exercise test, 24 hour holter monitoring, and dobutamine stress echo cardiography before and after 3 months of the study. data were collected and calculated and the results showed significant increase in peak oxygen consumption, significant increase in R-R intervals of the 24 hour holter monitoring, and significant improvement in the results of determine stress echocardiography of the 3 studies groups, whether there was no significant results in the control group also there were no significant results in between the 3 studies groups 50 we concluded that the laser therapy, cardiac rehabilitation and the leaser therapy combined with cardiac rehabilitation are three effective methods in the rehabilitation of ischemic heart disease patients.

Key words : Laser cardiac therapy, rehabilitation. heart disease.

physical therapy.

مقارنة بين الليزر العلاجي ذو الشدة المنخفضة

وبرنامج تأهيل القلب علي مرضي الذبحة الصدرية.

Author : Hamada Eid Seef Hassan.

Title : Efficacy of laser acupuncture

versus exercise program on

elderly's immune system.

Dept. : Physical Therapy Department of

Cardiopulmonary Disorder and

Geriatrics.

Supervisors : Nagwa Mohamed Hamed Badr,

Fawzy A. Halawa, Aziz Guirguis

Aziz.

Degree : Doctoral.

Year : 2001.

Abstract :

This study aimed to investigate both effects of laser acupuncture and exercise program on modululation of the function of immune system (Serum interleukin-2) in elderly. So, forty volunteer healthy elderly subjects were selected randomly with mean age ranged from 55 - 68 years. They were classified into two equally homogenous groups. Laser group: included 10 males and 10 females, each subject of the laser group received 90 seconds, 3 time / weak for one each of the acupuncture points specific for the immune system Exercise group: Included 10 male and 10 females. Each subject performed the first 3 grades of symptom limited modified burse protocol, 3 times / week for one month. The result of this study concluded that , both laser acupuncture and exercise program play an important regulatory role in the immune system response in elderly's immune system . Thus laser acupuncture therapy and practicing of moderate training exercise program has a beneficial effect on the immune system of sedentary elderly subjects.

Key words : lasers, exercises, immune system.

Arabic Title Page : علي التمرينات علي المقاءة الليزر وبرنامج التمرينات علي المقاءة الليزر

الجهاز المناعي للمسنين.

Physical Therapy Department for Obstetrics and Gynaecology and its Surgery

Author : Adly Aly Heider Sabbour.

Title : Transvaginal electrical stimulation

versus vaginal cones in female

idiopathic detrusor instability.

Dept. : Physical Therapy Department of

Obstetrics and Gynaecology.

Supervisors : Fahima Metwally Okeel, Sobhi

Khalil Abo Louz, Salwa Mostafa

El-Badry.

Degree : Doctoral. Year : 2001.

Abstract :

This study was conducted to determine the effectiveness of transvaginal electrical stimulation versus vaginal cones in reducing the bladder over activity. Fifty volunteers' postmenopausal women participated in this study. They were divided randomly into two groups. Group (A) had been treated with transvaginal electrical stimulation while group (B) had been treated with vaginal cones. The outcome measures included: (VAS), pad test and the urodynamics studies. The results of both groups showed decreased in urine loss in (VAS) and pad test. However, comparing the results in both groups, showed decreased in groups (A) compared to group (B). Group (A) showed increased in the EMG of the external urethral sphincter and the parameters of bladder volumes while detrusor pressure results showed decreased. Comparing the results of both grouped after at end of treatment there were increased in the vol. at fs. At cys-cap. Also, was decreased in detrusor pressure at 20ml infusion and vol. at fs in group (A). Accordingly it could be concluded that transvaginal electrical stimulation was found to be more effective than vaginal cones in treating idiopathic detrusor instability.

Key words : Electrical stimulation,

Versus vaginal, physical therapy.

Arabic Title Page : التنبيُّهُ الكهربائي المهبَلَي مقابل الأثقال

المخروطية المهبلية لعلاج الاختلال المرضي

الذاتي لعضلة المثانة لدى السيدات.

Author : Magda Sayed Morsy.

Title : The efficacy of electrical

stimulation and traditional exercise program on abdominal muscles

strength after childbirth.

Dept. : Physical Therapy Department of

Obstetrics and Gynaecology.

Supervisors : Fahima Metwally Okeel, Samia

Abd El-hamid Abd El-magid,

Mostafa Mahmoud Assem.

Degree : Doctoral.

Year : 2001.

Abstract :

this study was carried out to determine the effectiveness of neuromuscular electrical stimulation, graduated strengthening exercises and neuromuscular electrical stimulation superimposed strengthening exercise on the abdominal muscle strength after childbirth forty parous women were participated in this study. They were divided randomly into four groups equal in number (A,B,C,D)group(A). was instructed to perform activities of livening only, group(B)was instructed to perform a graduated strengthening exercise program, group (C) was instructed to receive an electrical stimulation on their abdominal muscles and group(D)was instructed to receive an electrical stimulation on their abdominal muscles and concurrently perform the graduated strengthening exercise program for 4 weeks, All results showed that the neuromuscular electrical stimulation superimposed strengthening exercises was the most effective method to strengthen abdominal muscles after childbirth.

Key words : Electrical stimulation, Childbirth,

physical therapy.

Arabic Title Page : تقييم مدى فاعلية التنبية الكهربائي وبرنامج

التمرينات التقليدية على قوة عضلات البطن بعد

الولادة.

Physical Therapy Department for musculoskeletal disorder and its Surgery

Author : Enas Fawzy Youssef.

Title : Kinetic chain exercises in

restoration of knee dynamic stability after anterior cruciate

ligament reconstruction.

Dept. : Physical Therapy Department of

musculoskeletal disorder and its

Surgery.

Supervisors : Bassem G.El Nahass, Ahmed Abdel

Aziz Ahmed, Salawa Fadle Abd

Elmageed.

Degree : Doctoral.

Year : 2001.

Abstract :

The anterior cruciate ligament (ACL)is the most frequently injured ligament in the knee joint. The rehabilitation after reconstruction is a critical point to be considered. The purpose of the current study is to compare between open kinetic chain (OKC) exercise program during the rehabilitation after arthroscopic-assisted ACL reconstruction using semitendinosus and gracilis tendons auto graft. Thirty male subjects participated in the study. The patients were randomly assigned into two groups, OKC exercise group (15 patients) received OKC exercises in from of isometric and isotonic resistive exercises and CKC exercise group (15 patients)received CKC exercises in from of weight bearing exercises. The two exercise programs started immediately after ACL reconstruction for 3 months and then the patients follow up assessment was at the 6th month after surgery. It was found that the CKC exercise group had higher functional score (91.3%)and more knee stability (2.67mm tibial displacement)than OKC exercise group which gained only 85.8% score and high (3.73 mm)knee laxity. No significant difference between both groups in muscle power, muscle girth and knee effusion. It was concluded that CKC exercise program functionally is better and safer for the graft after ACL reconstruction.

Key words : Knee, exercises, rehabilitation,

 $stability, \, reconstruction, \, mechanics, \,$

laxity, physical therapy.

مرينات السلسلة المركية في استعادة الثبات : Arabic Title Page

الحركي للركبة بعد اعادة بناء الرباط الصليبي

لامامي.

Physical Therapy Department of Surgery

Author : Emad Tawfic Ahmed.

Title : Helium neon versus gallium

aluminum arsenide laser irradiation on burn wound healing

in rats.

Dept. : Physical Therapy Department of

Surgery.

Supervisors : Emam Hassan El-Negamy, Adel

Abd El-Hamid Nossier, Galila

Mohamed Abd El-Latif.

Degree : Doctoral.

Year : 2001.

Abstract:

The aim of this work were to explore the role of laser therapy application in burn wound healing acceleration and detect the amount and frequency of laser therapy to decrease burn wound area . in this study 90 female albino rats, their mean age and weight were 6.49 + 0.52 months and 179.96 + 9.34 gram respectively . they were divided randomly into 3 equal groups : groups (1)(he - Ne group)30 female albino rats which are further subdivided according to energy density into 3 equal groups: group (I-A)which receive He - Ne laser at 1 J/cm2, group (I-B)which receive He - Ne laser at 2 J/cm2, and group (I-C)which receive He - Ne laser at 4 J/cm², (2)(Ga-Al-As group)³⁰ female albino rats which are further subdivided according to energy density into 3 equal group: group (II-A)which receive Ga-Al-As laser at 1 J/cm2, group (II-B) ehich Ga-Al-As laser at 2 J/cm2, and group (II-C)which receive Ga-Al-Aslaser at 4 J/cm2, group (3)(control group)which doesn't receive any treatment. the result showed a significant difference between both groups and control group regarding both WSA and colony count, also the best result obtained by He-Ne at intensity of 2 J/cm2.

Key words : Helium neon, gallium aluminum

arsenide, lasers, burn wound healing, rats, physical therapy.

اشعاع ليزر هيليم نيون مقارنة بجاليوم المونيوم : Arabic Title Page

ارسنيد علي التئام الحروق في الفئران.

Physical Therapy
Department for
Neuromuscular and
Neurosurgical
Disorder and its
Surgery

Author : Abeer Abo Bakr El-Wishy.

Title : Tens versus air splint pressure in

cerebral and spinal spasticity.

Dept. : Physical Therapy Department of

Neuromuscular and Neurosurgical

Disorder.

Supervisors : Mohamed Sadek Badawy, Azza

Abaas Helmy, Mohamed El-said

Saleh.

Degree : Doctoral. Year : 2001.

Abstract :

The aim of this work was to compare the effect of two physiotherapy modalities i.e. air splint pressure and TENS in controlling spastic hypertonia in CVA and focal spinal lesions. In this study, the H / M ratio was measured before treatment, after the first session and after four weeks of treatment . The results showed significant decrease of H / M after the first session as well as at the end of the treatment program. This work recommended that both air splint pressure and TENS are effective physiotherapy modalities in controlling spastic hypertonio, improving lower limb motor strength and standing balance. Moreaver, TENS improved the ambulation pattern in CVA and paraparetic patients.

Key Words:

Key words : air splint pressure, Spasticity, H/M

ratio, TENS, Motoneneuron

excitability.

Arabic Title Page : التنبيه الكهربائي للعصب عبر الجلد مقابل

الجبيرة الهوائية الضاغطة في الشلل التقلصي

المخي والفقري.

Author : Eman Samir Mohamed Fayez.

Title : Influence of exercises on levodopa

bioavailability in parkinsonian

patients.

Dept. : Physical Therapy Department of

Neuromuscular and Neurosurgical

Disorder.

Supervisors : Nahed Ahmed Salem, Ahmed Tallat

El-Ghoniemy, Mohamed Nabil El-

Bahrawy.

Degree : Doctoral.

Year : 2001.

Abstract :

The aim of this work was to determine the effect of moderate intensity exercises on levodopa bioavailability and its relationship with the degree of motor impairment in Parkinson Ian patients. in this study the bioavailability of levodopa was measured at time of drug ingestion and at 30 min , 45 min , 60 min. and 75 min. after drug ingestion in both exercises and non exercise day. tremors, rigidity and bardykinesia were assessed by using (UPDRS)at time of drug ingestion and at 60 min . after drug ingestion. the results showed significant improvement in levodopa bioavailbility as well as significant improvement in motor impairment signs with exercises. this work recommended that physical therapy intervention in form of moderate intensity exercise is effective in improving levodopa bioavailability and in turn improving motor impairment signs in Parkinson's disease patients .

Key words : Parkinson's disease, Bioavailability,

levodopa, exercises, physical

therapy.

Title Page : ناثير التمارين على مستوى الليفودوبا في مرضى

الشلل الرعاش.

Physical Therapy
Department for
Growth and
Developmental
Disorder in Children
and its Surgery

Author : Alaa Ibrahim Ismail.

Title : Transcranial magnetic stimulation

for evaluation and modulation of central motor pathway in hemiparetic cerebral palsied

children.

Dept. : Physical Therapy Department of

Growth and Developmental Disorder in Children and its

Surgery.

Supervisors : Emam Hassan El-Negamy, Ann A.

Abdel-Kader, Maged M. Abdel-

Naseer.

Degree : Doctoral. Year : 2001.

Abstract :

Thirty subjects invited in this study, with age ranging from 3 to 6 years. They divided into two equal groups (study and normal). Subjects of the study group were spastic hemiparetic cerebral palsied patients. The study group subjected to a physical therapy program for six month's period. transcranial magnetic stimulation parameters and foot print parameters were recorded for every patient in the study group before and after treatment, while recorded once only for the normal group. Results showed prolongation of the cortical MEP latency and CMCT as well as reduction of the cortical MEP amplitude and duration in the study group when compared to the normal group. CMCT was the only TCS parameter that reduced after the application of treatment. In addition, the inter-side differences of both cortical MEP latency and CMCT were also reduced after treatment. Step and stride lengths are decrease in hemiparetic children while foot angle is increased with almost unchanged step width. After treatment the step and the stride lengths of the affected lower limb were increased while the foot angle and the step width were decreased.

Key words : Transcranial magnetic, magnetic stimulation, hemiparetic cerebral

palsied, cerebral palsied children,

children, physical therapy.

التنبيه المغناطيسي عبر خلايا المخ لتقييم وتعديل : Arabic Title Page

المسار الحركي في حالات الاطفال المصابين

بالشلل المخي النصفي.

Author : Fatma Abd El-Fattah Hegazy.

: Influence of long exposure to **Title**

electromagnetic field on immune system and elucidation of the issue

of infantile health impact.

Dept. : Physical Therapy Department of

Developmental Growth and Disorder in Children and its

Surgery.

Supervisors : Fadel Mohamed Ali, Kamal El-

Sayed Shoukry, Hoda Abd El-Azim

El-Talawy.

Doctoral. Degree

Year 2001.

Abstract

EMF is considered on of the common used modalities in the field of the physical therapy. Physical therapists use almost all types of EMF (high, middle, and low frequency EMF) in the management of different cases. Recently, there are many diseases (cancer one of them) increased with high percentage as compared with the years before 1990. Therefore, the aim of this work is to investigate the effect of EMF on the alterations and in spleen and lymph nodes as secondary lymphoid organs by using optic and electron microscopy. for this purpose 90 albino rats, were divided into three equal groups, namely control (C)unexposed group, intrauterine (I.U.), and post-natal (P.N.) exposed groups, 10 animals died at I.U. group and 2 at P.N. group during running of the experiment. other animals, (at 3 weeks old) from different groups were anaesthetized with ether, the blood samples were collected from eye vein by heparinated capillary tubes and blood films were done. Then the dissection of animals was done the four lymphoid organs were taken to the processing of optic and electron microscope. The results suggested cause-effect relationship between exposure to EMF for a long duration, and the development of myeloid leukemia and malignant lymphoma.

Kev words : Electromagnetic, immune system, health. elucidation, infantile

physical therapy.

اثر التعرض لمجال كهرومغناطيسي لفترات **Arabic Title Page :**

طويلة علي الجهاز المناعي واستنباط نتائجه على صحة الطفل.

Author : Gehan Hassan El-Meniawy.

: Investigation into technique for **Title**

improving posture of adolescent

girls with thoracic hypnosis.

: Physical Therapy Department of Dept.

> **Developmental** Growth and Disorder and its in Children

Surgery.

Amira Mohamed El-Tohamy, Alaa **Supervisors**

> Mahmoud, **El-Din El-Zoheiry**

Hassan Galal Mourad.

Degree : Doctoral.

Year 2001.

Abstract

The aim of the present study was to determine the effect of threedimensional dynamic correction, via a specially designed jacket with traction, when added to chiropractic adjustment and exercise therapy on lymphatic deformity, in adolescent girl . Forty adolescent girls suffering form non-bony structural hypnosis, ranging in age from 15 to 18 years (X' 16.43+ 0.817 yr.) represented the sample of this study. They were free from any associated deformities other than hypnosis of the thoracic spine. The angle of hypnosis of the study sample was chosen according to the Cobb's angle to be ranging from 50 to 65 degrees. Evaluation for each girl of both groups was conducted before treatment, after three month, and after six months of treatment. Changes in the degree of hypnotic curve were determined for each girl of both groups, via measuring the Cobb's angle and using the flexible ruler. Girls representing the sample of this study were then divided randomly into two equal groups (I and II). Group I (control) received chiropractic adjustment and a designed exercise program, while group II (study) received three-dimensional dynamic correction, in addition to chiropractic adjustment and the exercise program given to group I. The results of the present study after the suggested period of treatment revealed significant improvement in all measuring variables of group II after three months and after six months of treatment as compared with each other and with its per-treatment results and also with the post-treatment results group I (after three months and after six month of treatment). However, no significant deference was observed when comparing the pre-treatment results of groups I and II. So, it is recommended that three-dimensional dynamic correction could be used in conjunction with chiropractic adjustment and exercise therapy for correcting non-bony structural hypnosis in adolescent girls.

Key words : Posture, adolescent girls.

استقصاء عن أسلوب علاجي لتحسين قوام حالات الحدب في مرحلة البلوغ عند البنات. **Arabic Title Page**

: Samia Abdel-Rahman Mohammed. Author

Title : Effect of cross- education program

on certain perceptual motor activity

in spastic hemipaetic children.

Dept. : Physical Therapy Department of

> Growth and **Developmental** Disorder in Children and its

Surgery.

: Amira M. El - Tohamy, Amine H. **Supervisors**

Salem, William P. Bartlett.

Degree : Doctoral. Year 2001.

Abstract

The purpose of this study was to investigate whether crosseducation is an effective modality in improving performance of the affected upper extremity in specific perceptual motor activity used to improve the gross manual dexterity as well as to compare between the effect of two suggested types of the cross-education program (independent and partially independent). the box and block test as well as the percentage of motor learning were used to assess the performance of the affected upper extremity. the box and block activity and the ring container activity were used for the cross-education program in addition to the traditional physical therapy program . forty-five children with spastic hemiparetic cerebral palsy participated in this study. they were divided into three equal groups. group (I)received the independent cross-education program , group (II) received the partially independent cross-education program and group (III) the independent nor the neither independent cross-education program . all groups received the traditional physical therapy program . the results revealed the effectiveness of the cross-education program in the habilitation of the upper extremity in spastic hemiparetic cerebral palsied children. The results also revealed the superioritic of the partially independent cross-education program in the habilitation of the upper extremity in the same children. It is recommended that the cross-education program might be used in conjunction with the traditional physical therapy program during the habilitation of: the upper extremely in spastic hemiparetic cerebral palsied children.

: cross-education, bilateral transfer, **Key words**

contralateral, hemiparesis, cerebral

palsy, physical therapy.

تاثير برنامج التعليم المتبادل على نشاط إدراكى **Arabic Title Page**

حسى حركي معين في الأطفال المصابين بالشلل النصفي التشنجي.

Author : Diaa Ramzy Ismail.

Title : Hazards during exposure to low

and high electromagnetic fields.

Dept. : Department of Biomechanics.

Supervisors : Awatif Mohamed Labib, Soad

Mahmoud Mohamed, Fadel

Mohamed Ali.

Degree : Doctoral. Year : 2002.

Abstract :

Physiotherapists use wide range of frequencies of electromagnatic spectrum (0.1Hz - 2.5GHz) for treatments of patients . they receive accumulative and unmeasured does from their professional work daily . therefore the aim of the present work is to investigate the radiation hazards from occupational exposures physiotherapists and try to interact the phenomena with animal studies . since physiotherapists are exposes to extremenly low and high frequency, radiation epidemiological study will include low and mixed low and high frequency effects . the work also studied the effect of short wave 27.2MHz on the blood on Guinea pig as well as 50 Hz eclectics fields . it was concluded that there is a risk from occupational exposures of physiotherapist to electromagnatic radiation and there is an insist need for considering them is radiation workers . this demands periodical medical investigation for them all workers . this demands periodical medical investigation for them and all workers in the department of physiotherapy in hospitals and giving stress on the CPK, ALP and SGOT level . it was also recommended that authorities should bay down low for mobilizing radiation exposures to protect and control safe exposures of physiotherapist and measure the radiation fields around radiation emitting equipment.

Key words : Low and high electromagnetic

fields, enzymatic activities, human exposure, animal exposure, Physical

Therapy.

المخاطر التي تحدث اثناء التعرض للمجالات : Arabic Title Page

الكهرومغناطيسية المنخفضة والمرتفعة.

Author : Abeer Taha Ali.

Title : Ventilatory functions response to

respiratory exercises program in workers of tourah cement factory.

Dept. : Physical Therapy Department for

Cardiopulmonary Disorders and

Geriatrics and its Surgery.

Supervisors : Nagwa Mohamed Hamed Badr,

Mohamed Mahmoud El Batanony,

Zahra Mohamed Hassan Seri.

Degree : Doctoral.

Year : 2002.

Abstract:

This work aims to improve the workers ventilatory functions and so increasing their productivity . the subjects of this study are classified into two groups according to the duration of their work in this factory : group (I): thirty workers spent less than ten years in this job . group (II): thirty workers spent more than ten years in this job . ventilatory exercise program is applied in this study for three months every other day . by comparison of the results of both groups , lt appeared that the improvement occurred in all parameters for the two groups . but the improvement in the first group is higher than that of second group . the interpretation was that the duration of exposure to cement dust greatly affect on the ventilatory functions of cement factory .

Key words : ventilatory functions, respiratory

exercises program, cement workers,

physical therapy.

استجابة الوظائف الرئوية لبرنامج تمارين : Arabic Title Page

تنفسية لعنال مصنع طرة للاسمنت.

Author : Abla Mohamed Hamed.

Title : Outcomes pulmonary rehabilitation

on pulmonary functions after spinal surgical correction of adolescent

scoliosis.

Dept. : Physical Therapy Department for

Cardiopulmonary Disorders and

Geriatrics and its Surgery.

Supervisors : Nagwa Mohamed Hamed Badr,

Youssry M. K. El-Hawary, Hala M.

E. Hamed.

Degree : Doctoral.

Year : 2002.

Abstract :

One hundred twenty seven students complaining from IS were selected surgery caused reduction in all pulmonary functions by 50%, decrease and in Cobb angle by 85%.for doublegroup the pulmonary functions increased by 80% and chest expansion by 31% while respiratory rate decreased by 25%, the posterior group gained another improvement in oulmonary fuctions equals 65% with increase in chest expansion equals 25% and decrease in respiratory rate equals 23%, after application of PRP, regarding experimental and control groups the differences inpulmonary fuctions equals 25% while posterior group the average was 20%.

Key words : Scoliosis, surgical correction,

pulmonary rehabilitation, Physical

Therapy.

نتائج التاهيل الرئوى على وظائف الرّئة بعد : Arabic Title Page

اصلاح الانحناء الجانبي للعمود الفقرى جراحيا

للمر اهقين.

Author : Mervat Abd El-Rahman Mohamed.

Title : Leg strengthening exercise versus aerobic training in rehabilitation of

chronic heart failure patients.

Dept. : Physical Therapy Department for

Cardiopulmonary Disorders and

Geriatrics and its Surgery.

Supervisors : Nagwa Mohamed Hamed Badr,

Diaa El Dien Abou Shokka, Mohamed Abdul Hameed Sallam.

Degree : Doctoral.

Year : 2002.

Abstract :

This study was conducted to study the effect of aerobic training and strengthening exercise programs on the indiced of exercise tolerance for rehabilitation of chronic heart failure patients sixty male chronic heart failure patients due to ischaemic cardiomyopathy form national heart institute , outpatient clinic , participated in this study the results of this study revealed significant reduction of resting heart rate , resting systolic blood pressure , and resting diastolic blood pressure for both groups it also showed significant increase of oxygen pulse , peak Vo2 , anaerobic threshold and peak work load in both roups .

Key words : aerobic training, strengthening

exercise, cardiac rehabilitation, chronic heart failure, ischaemic cardiomyopathy, physical therapy.

مريّنات التقوية لعضلات السّاق مقابل التدريبات : Arabic Title Page

الهوائية في تاهيل مرضى فشل عضلة القلب

مز من.

Author : Neiven Hemamy Mohamed.

Title : Exercise versus low level laser on

oxidative balance in mild

hypertension.

Dept. : Physical Therapy Department for

Cardiopulmonary Disorders and

Geriatrics and its Surgery.

Supervisors : Nagwa Mohamed Hamed Badr,

Fawzi Ahmed Halawa.

Degree : Doctoral. Year : 2002.

Abstract:

The aim of this study is to investigate the effects of treadmill training, low level laser and both of them on resting blood pressure and selected markers of resting serum oxidative balance. forty five mild hypertensiv patients, aged 40 to 60 years, were selected from the national heart institute. they were assigned into 3 groups, each consisted of 15 patients; group A enrolled into a treadmill training program, group B received low level laser to acupuncture points, and group C received both of the programs. the duration of study was 4 weeks. evaluation included, measurement of resting pulse rate reasing blood pressure, chemical analysis of malondial dehyde (MDA) and glutathione peroxidase enzme (GPX). the results showed that the application of the three study programs significantly reduced resting pulse rate, resting blood pressure and resting serum MAD, while glutathione peroxides was significantly reduced by treadmill training and was not significantly altered by the other two programs.

Key words : Treadmil training, low level laser,

lipid peroxidation, antioxidants,

physical therapy.

مقارنة التمرينات العلاجية والليزر منخفض : Arabic Title Page

الشدة علي التوازن التاكسدى في الضغط العالي

البسيط

Author : Randa Farouk Hebisha.

Title : Therapeutic ultrasound versus

diaphragmatic breathing exercise in management of chronic obstructive

pulmonary disease.

Dept. : Physical Therapy Department for

Cardiopulmonary Disorders and

Geriatrics and its Surgery.

Supervisors : Nagwa Mohamed Hamed Badr,

Samiha M. Abu Bakr, Azza Fekry

Ismail.

Degree : Doctoral. Year : 2002.

Abstract :

The aim of this study is to determine the efficacy of therapeutic ultrasound as new trend versus diaphragmatic breathing exercise in management of chronic obstructive pulmonary disease (COPD). Ninty patiens with COPD participated in the study, aged 40-55 years old were selected from al-zahraa university hospital and divided into three equal groups . the first group received therapeutic ultrasound with the medical treament,the second group accomplished diaphragmatic breathing exercise with the medical treatment and thethird group recevied therapeutic ultrasound and diaphragmatic breathing exercise with the medical treatment . the programs continued for eight weeks (three sessions per week). there were an improvement in subjective symptoms and significant increase in the pulmonary function following the four and eight weeks programs but there was a greater significant increase in pulmonary function following a program of theraputic ultrasound and diaphragmatic breathing exercise than the other two experimented groups . so ultrasound can be considered as a valuable method for treating COPD patients.

Key words : therapeutic ultrasound, ultrasound,

breathing exercise, pulmonary

disease, physical therapy.

مقارنة بين الموجات فوق الصوتية العلاجية و : Arabic Title Page

تمرينات التنفس للحجاب الحجاز في حالات السدة

الرنوية المزمنة.

Author : Hanan El-Sayed El-Mekawy.

Title : EMG biofeedback versus

interferential electrical stimulation

in genuine stress incontinence.

Dept. : Physical Therapy Department for

Obstetrics and Gynaecology and its

Surgery.

Supervisors : Fahima Metwaly Okeel, Ismail

Osman Abd-Elhafeez, Salwa

Mostafa El-Badry.

Degree : Doctoral. Year : 2002.

Abstract :

This study was conducted to determine the effectiveness of biofeedback versus electrical stimulation in the treatment of mild or moderate stress urinary incontinence . fourty five volunteers' woman participated in this study,they were divided randomly into three groups(A,B,C). group(A)treated by biofeedback ,group (B)treated by interferential stimulation,while group (C)treated by exercises to the pllvic floor ms . all group were assessed by vaginal pressure , VLPP,subjective as well as objective stress related leakage scales before and after the treatment program.it was found that group (A)recorded a statistically significant improvement and cure rate more than the other two groups.

Key words : emg biofeedback,genuine stress

incontinence, strss urinary, pelvic diaphragm, physical therapy.

التغذية الرَّجعة الحيوية ومقارنتها باستخدام : Arabic Title Page

التنبية الكهربي المتداخل في التاثير على حالات

السلس البولي.

Author : Ashraf Ramadan Hafez.

Title : Modified physical therapy program

versus surgical approach in management of spondylolisthetic

patients.

Dept. : Physical Therapy Department for

musculoskeletal disorder and its

Surgery.

Supervisors : Bassem G. EL Nahass, Youssry

Mohamed Kamal El-Hawary,

Salwa Fadle ABD El-Mageed.

Degree : Doctoral. Year : 2002.

Abstract :

The purpose of this study was to compare between the effect of modified physical therapy program and surgical approach in management of spondylolisthetic patients and to detect the main indications for surgical approach . the study,included fourty patients divided into two groups,the first group (20 patients)following a modified physical therapy program,three sessions per week for three months , the second group(20 patients)submittd to surgical approach only . there was a highly significant improvement in the exercise group and no or low improvement in the second group therapeutic exercise program can be described for spondylolisthetic patients as an alternative to surgical interference which is indicated only in cases of bowel or bladder disturbances .

Key words : Low back pain, posture,

pathomechanics, lumbar stability, lumbar mobility, lumbosacral

angle, spondylolisthesis,

surgical management, conservative

management, physical therapy.

مقارنة بين برناج علاج طبيعي معدل والجراحة : Arabic Title Page

لمرضى الانزلاق الفقارى الامامى.

Author : **Huda** Mohyee Mohammed

Ibrahim.

Title : Physical examination vs.

ultrasonography in the evaluation of the lateral ligament injury of the

ankle.

Dept. : Physical Therapy Department for

musculoskeletal disorder and its

Surgery.

Supervisors : Bassem G. El-Nahass, Naguim

Abdel Wahab, Alyosmanel Mofty.

Degree : Doctoral. Year : 2002.

Abstract :

The purpose of this study was to compare the efficiency of the clinical physical examination in relation to ultrasonography in the evaluation of the lateral ligament injury of the ankle, within 48 hours after injury, after 4-7 days of injury, and after 6 weeks of functional rehabilitation program. thirty-two patients participated in the study . they were evaluated by physical examination and ultrasonography in the three evauations. functional eahabilitation program was applied for all the patients. data were collected and analyzed . results showed that the difference was not statistically significant between the intial and delayed physical examination and ultrasonography for most of the ligaments . there was significant difference betweew initial and delayed ultrasonography (US)evaluations asregard to anterior talofibular ligament (ATFL)injury, and between both physical examinations for grade I of calcaneofibular ligament (CFL)injury . there was significant difference between physical examination and ultrasongraphy for CFL in the intial evalution, but it was not significant for all the ligaments in the delayed evaluation . it was concluded that the physical examination is efficient in relation to ultrasonography in the evaluation of the lateral ligament injury of the ankle . follow-up evaluations proved the efficiency of the rehabilitation program.

Key words : Ankle, later ligaments, sprain,

evaluation, physical examination, ultrasonography, rehabilitation,

Physical Therapy.

Arabic Title Page : فوق عارنة بالموجات فوق

الصوتية في تقييم اصابة الرباط الوحشي لمفصل

لكاحل.

Author : Nabil Saber Farag.

Title : Predicton of mechanical

patellofemoral dysfunction as a result of muscle endurance insufficiency in patients suffering

from anterior knee pain.

Dept. : Physical Therapy Department for

musculoskeletal disorder and its

Surgery.

Supervisors : Bassem G. El-Nahass, Yehia Nasef

Mohomed.

Degree : Doctoral.

Year : 2002.

Abstract :

The purpose of this study was to find if there is a relationship between endurance insufficiency of the quadriceps and hamstring muscles and maltracking of the patella in sedentary individuals this study stated that therre is aclose relationship between the muscle endurance insufficiency and hamstring -quadriceps endurance insufficiency is considered a predisposing factor for patellar maltracking patellar cartilage derangement.

Key words : patellofemoral, malalignment,

muscle insufficiency, isokinetics, endurance insufficiency, anterior

knee pain, physical therapy.

Arabic Title Page : استنتاج الخلل الميكانيكي لمفصل عظمة الرضفة

مع اسفل عظمة الفخذ نتيجة لعدم كفاية تحمل العضلات في المرضي الذين يعانون من الم امامي بمفصل الركبة.

Author : Mohamed Mahmoud Abdel Khalek

Khalaf.

Title : The role of ultrasonic therapy in

controlling the hypertrophic scar.

Dept. : Physical Therapy Department for

Surgery.

Supervisors : Emam Hassan El-Negamy, Adel

Abd El-Hamid Nossier, Ashraf Abd

El-Kader Ahmed.

Degree : Doctoral. Year : 2002.

Abstract:

The purpose of this study was to evaluate the maturity of hypertrophic scar in thermally burned patients following participation in program of ultrasonic therapy. Sixty subjects, aged 20 to 30 years with hypertrophic scars participated in this study. the vascularity, pliability, height, volume of hypertrophic scars and range of motion of the joint affected by the scar was assessed before, after three months and after six months of initiation of the treatment using modified vancouver burn scar assessment scale, dental impression material and standard geniometer. the non-significant improvement in continuous U.S group and the significant worsening of the scar in the pulsed ultrasonic group were recorded after participation in the therapeutic program of ultrasonic application . from the obtained results in this study, it can be concluded that, ultrasonic therapy is not a beneficial therapeutic modality for controlling hypertrophic scae .

Key words : Ultrasound, hypertrophic scar,

burn, physical therapy.

Arabic Title Page : التحكم ألتحكم فوق الصوتية في التحكم

في ندبات ما بعد الحروق.

Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery

Author : Hadya Mourice Ibrahim.

: Effect of vibratory stimulation on **Title**

> spastic crouch gait diplegic

children.

: Physical Therapy Department for Dept.

> **Developmental** Growth and Disorder in Children and its

Surgery.

: Hoda Abdel Aziem El Talawy, Hala **Supervisors**

Ibrahim Ahmed Kassem.

Degree : Doctoral. Year 2002. :

Abstract

The aim of study was to evaluated the effect of high and low frequency vibratory stimulation and a specially designed exercise program on crouch gait in spastic diplegic cerebral palsied children. sixty diplegic children (35 males and 25 females), ranging in age from three to years old participated in this study . the study sample was classified randomly into two study groups and one control group. the first study group received a program of high frequency vibratory stimulation in addition to especially designed exercise program . the second study group received a program of low frequency vibratory stimulation in addition to the specially designed exercise program given to the first group, while the control group received the specially designed exercise program only . the angles of hip, knee and ankle joints and temporal - distance parameters of gait were evaluated before and after three months of application of different treatment programs . the results of the study revealed highly significant improvement in all measuring variables of the first and second study groups (except the step width), while no significant improvement was observed in the results of the control group. Improvement in the two study groups may be attributed to the effect of vibratory stimulation program on improving muscle function.

: CP, vibratory stimulation, crouch **Key words**

gait, gait analysis, **Physical**

Therapy.

تأثير الاهتزاز الكهربي على المشية الجاثمة في **Arabic Title Page :**

الأطفال ذوى الشلل المخي التشنجي.

Author : Manal Salah El-Dien Abdel-

Wahab.

Title : Effect of augmented feed - back on

changing visual - perceptual and fine - motor skills in diplegic

cerebral - palsied children.

Dept. : Physical Therapy Department for

Growth and Developmental Disorder in Children and its

Surgery.

Supervisors : Hoda Abdel - Azim El-Talaw,

Kamal El - Sayed Shoukery, Nadia

Adib Bamieh.

Degree : Doctoral.

Year : 2002.

Abstract :

The purpose of this study was to investigate the effect of using advanced technology in a form of computer set and a designed computer program directed towards improving fine motor abilities through stimulation of visual-perceptual skills as well as compares this new trend of treatment with the traditional one used form improving fine-motor abilities. Visual motor integration (VMI) test and denier developmental test (DDT) were used to assess visual-perceptual and fine-motor abilities respectively. forty young patients with spastic diplegic form of cerebral palsy (CP)participated in this study in addition to twenty normal children ranged in age from four to eight years to be used as a standard measures . spastic patients were randomly divided into two groups of equal number . the first group (group I)treated by using a computer set and a designed computer program with muse movements in different directions . the second group (groupII)treated by a traditional line of treatment used for improving fine-motor abilities, all patients in both groups received their ordinary physical therapy treatment program used for improving their physical activities . the results revealed that using a designed computer program in a form of attractive games had the ability to drag the child's attention and concentration for longer period of time leading to improvement of visual-perceptual skills and consequently improvement of fine-motor abilities more in group I than in group II was recorded . it is recommended that using of advanced technology in a form of attractive playing games as: As a source of augmented feedback might be used in conjunction with the traditional line of treatment in the habilitation of upper extremities of children with spastic diplegic cerebral palsy.

Key words : augmented feedback, visual-motor

interaction, fine-motor skills, diplegia, cerebral palsy, physical

therapy.

علير التعدية الاسترجاعية المرادة على تحسين : Arabic Title Page : كلا من مهارات الادراك البصري و المهارات الدوية في حالات الاطفال المصابدن

بالشلل المخي التقلصي.

Author : Nagui Sobhi Nassif.

Title : An investigation on the static and

dynamic balance in patients with knee osteoarthritis before and after

a specific training program.

Dept. : Physical Therapy Department for

Growth and Developmental Disorder in Children and its

Surgery.

Supervisors : Amira Mohamed El-Tohamy,

Ahmed Hassan Hussein, Mohamed

Mohamed Ibrahim Hanafy.

Degree : Doctoral.

Year : 2002.

Abstract :

The purpose of this study was to investigate the dynamic and static balance ability of patients suffering from knee osteoarthritis and document the effect of specific balance training program on these balance variables . forty subjects with moderate degree of unilateral and bilateral knee osteorthritis participated in this clinical procedure. they were divided equally between two groups, group I were the patients suffering from unilateral knee osteoarthritis while group II were the patients suffering from bilateral knee osteoarthritis a matched control group III of twenty normal subjects was selected for comparative data analysis and reference the patients were tested using a functional scale, isokinetic dynamometer and balance stability system three sessions per week for four weeks were given for each patient on the biodex stability system the results showed improvements which was reflected on the significant difference in the functional scale, the peak torque, the static and dynamic balance in group I and II compared to group III, which concluded the importance of using a stability balance system in the rehabilitation program of patients suffering from knee joint osteoarthritis.

Key words : biomechanics, static, dynamic, balance, isokinetic, knee.

balance, isokinetic, knoosteoarthritis, physical therapy.

بحث عن التوازن الاستأتيكي والديناميكي : Arabic Title Page

لمرضي التهاب الركبة العظمى المقصلى قبل وبعد

مزاولة برنامج تدريبي خاص.

Sabry Salem Abd El-Rahman. **Author**

Title Reciprocal electrical stimulation in

spasticity control of hemiparetic

cerebral palsied children.

Dept. Physical Therapy Department for

> Growth and **Developmental** Disorder in Children and its

Surgery.

Supervisors Emam Hassan El-Negamy, Hoda

A.El-Talawy.

Degree Doctoral.

Year 2002.

Abstract

The purpose of this study was to evaluate the effect of reciprocal electrical stimulation of opposing groups of muscles alternatively on spasticity control and improvement gait pattern in spastic hemiparetic cerebral palsied children. the study was conducted on thirty spastic hemiparetic children, ranging in age between 4 and 6 years, they were divided randomly into 2 groups of equal number (control and study groups)each one containing 15 patients the control group was subjected to traditional physical therapy program in addition to faradic stimulation on the antispastic muscles (anterior tibial muscle group), while study group was subjected to reciprocal electrical stimulation on opposite groups of muscle alternatively, anterior tibial muscle group was first stimulated then the calf muscles was stimulated alternatively in addition to traditional physical therapy program . Hoffman reflex / myogenic response ratio was recorded and gait parameters, including step length for both the affected and non affected limbs, stride length, step width and foot angle for both the affected and non-affected limbs, were determined via the use of foot print methods. both groups were evaluated before and after treatment program which was conducted for 3 months at 3 session per week bases . in comparing the changes recorded in both groups, the results showed significant difference in H/M ratio and significant difference in measured gait variables between the study and control groups in favor of the study group. from the obtained results it can be concluded that reciprocal: electrical stimulation could be used in addition to the traditional methods of treatment to improve gait pattern and increasing motor control of the muscles of spastic hemiparetic cerebral palsied.

Key words Cerebral palsy, spasticity,

electrical reciprocal stimulation,

Physical Therapy.

ندام التنبية الكهربائي العصبي للعضالات الله بالتناوب لعلاج حالات السلل المخي في في الاطفال للتحكم في زيادة النغمة **Arabic Title Page**

Department of Basic Science

Author : Amir Mohamed Saleh.

Title : Effect of angle-specific isometric

strengthening exercises on quadriceps muscles in total knee

replacement's patient.

Dept. : Department of Basic Science.

Supervisors : Mohsen M. El-Sayyad, Judith L.

Stoecker.

Degree : Doctoral.

Year : 2003.

Abstract :

Background rehabilitation after total knee arthroplasty (TKA)plays an important role in the success of the surgery improving the power of the thigh muscles and obtaining early range of motion (ROM)after TKA may be related to improve of rehabilitation cast the purpose of this study was to investigate the effect of angle specific isometric strengthening exercises on thigh muscles and standard physical therapy rehabilitation program. subjects: fifty subjects (mean age= 68.70+2.77)30 female and 20 male post primary TKA were randomly assigned to one of two groups ; 25 patents in each group. In group A, control group received standard physical therapy rehabilitation. group B experimental group received a modified rehabilitation program which include angle-specific isometric exercises for the thigh muscles . active knee flexion and active knee extension deficit, quadriceps and hamstring isometric force and 5 functional activities were measured on the first home health visit and by the of the 4 weeks. the romaes measured by using the universal goniometer, the muscle power was measured by the hand-held dynamometer while the functional activities were measured by using the patient's specific functional scale (PSFS). Results: there was a significant increase in knee ROM, thigh muscle power and P.S.F.S for both groups . There was a statistically significant difference (p<0.05) between the two groups in knee ROM, thigh muscle power and functional activities. Discussion and conclusion: modified rehabilitation program is an effective program in rehabilitation: program is an effective program in rehabilitation of post - operative TKA.

Key words : Total knee arthoplasty, angle

specific isometric exercises, functional outcomes, Physical

Therapy.

Title Page : عند زاوية محددة الساكنة عند زاوية محددة

عند عضلات الفخذ الامامية عند مرضي تغيير

مفصل الركبة.

Author : Neveen Abd El-latif Abd El-Raoof. : Balance in subjects **Title** with

without scoliosis implication for

physical therapy treatment.

Department of Basic Science. Dept.

Supervisors Mohsen M. El-Sayyad, Abd El -

Megeed El- Ashmawe.

Doctoral. **Degree** Year 2003. **Abstract**

The purpose of this study was to investigate the difference in balance responses between SIS patients and normal subjects and also to investigate the efficacy of physical therapy management on spinal curve and balance response of AIS patient's subjects. thirty-three patients with AIS (23 males and 10 females), age (16 \cdot 1 + 2 \cdot years \cdot eighty healthy subjects (48 males and 32 females)age (15 + 2.9)years . experimental group (AIS)was evaluated by both moire topography to measure spinal angles and biodex stability system (BSS)to measure medico-lateral stability index in six testing conditions . then this group had applied conservative treatment in the form of lateral electrical stimulation, therapeutic exercise and balance training, this program was applied every other day for twelve weeks . control group was evaluated by BSS to measure stability indices . results . there was a significant decrease in spinal angle from (17 .+ 5.) to (10.3+ 5.5)as well as significant decrease in stability indices in all testing conditions except for standing on left foot with eye closed . discussion and conclusion . the relation between balance and spinal angles revealed that balance could be used as predictor for scoliosis it's recommended to include balance in physical therapy program for treating patients complaining from AIS.

Key words : Screening, Scoliosis, balance, moire topography.

الاتزان لدى الاشخاص المصابين والغير **Arabic Title Page :**

المصابين بالانحناء الجانبي للعمود الفقرى

وتطبيقاتة في العلاج الطبيعي.

Physical Therapy
Department for
Cardiopulmonary
Disorder and
Geriatrics and its
Surgery

Author : Akram Abd El-Aziz Sayed.

Title : Selected immunological effects of

low level laser therapy in patients

with pulmonary tuberculosis.

Dept. : Physical Therapy Department for

Cardiopulmonary Disorder and

Geriatrics and its Surgery.

Supervisors : Aziz Guirguis Aziz, Adel Wadie

Falasteen.

Degree : Doctoral.

Year : 2003.

Abstract :

Forty pulmonary tuberculosis patients were subjected for the study to investigate the effect of laser acupuncture on gig serum level. The subjects divided equally into two groups. The first group received laser on acupuncture points and medical treatment-the second group received placebo laser and medical treatment-the study group includes 13 males and 7 females and second group includes 13 males and 7 females. Two venous blood samples (2.5 ml) had been taken from each patient of both groups before and immediately after the laser session post 6 weeks. The result of this study indicated a highly significant increase in lug serum level representing changes of 65% compared to 4% in the control group.

Key words : low level laser, immunity,

acupuncture, Physical Therapy, immunoglobulin (G), pulmonary

tuberculosis.

بعض التاثيرات المناعية للعلاج بالليزر في : Arabic Title Page

مرضى السل الرئوى.

Author : Amany Raafat Mohamad.

Title : Myocardial perfusion imaging and

functional assessment for the efficacy of rehabilitation program

post myocardial infarction.

Dept. : Physical Therapy Department for

Cardiopulmonary Disorder and

Geriatrics and its Surgery.

Supervisors : Naguib M.salem, Alia H.Abd El-

Fattah, Awny F.Rahmy.

Degree : Doctoral.

Year : 2003.

Abstract:

The effects of cardiac rehabilitation on patients in the recovery stage within 2 weeks after the first attack of acute myocardial infarction were assessed in this study. A total of 16 pts with mean age 52 yrs. admitted to the critical care department, Cairo University. All pts subjected to clinical, laboratory investigations and myocardial perfusion imaging prior and post the intervention of cardiac rehabilitation that included gradual treadmill exercises for 10 weeks with frequency 3 sessions a week the results of the study revealed the ability of the cardiac rehabilitation to improve the myocardial perfusion and exercise tolerance in our patients even in pts with anterior ML over the age of 50 years.

Key words : acute myocardial infarction,

myocardial perfusion, cardiac rehabilitation, Physical Therapy.

معدل الارتواء وتقييم وظيفي لكفاءة القلب : Arabic Title Page

في برنامج تاهيلي لما بعد احتشاء عضلة القلب.

Author : Farag Abd El-Moneim Ali

Mohamed.

Title : Comparison between different

aerobic exercise training intensities on outcomes of cardiac rehabilitation programs in patients

with ischemic heart diseases.

Dept. : Physical Therapy Department for

Cardiopulmonary Disorder and

Geriatrics and its Surgery.

Supervisors : Nagwa Mohamed Hamed Badr,

Lotfy Mohamed Eees, Mostafa

Hussein Ahmed Ali Gad.

Degree : Doctoral.

Year : 2003.

Abstract :

This study was conducted to compare between different intensities of aerobic exercise training on the outcome of cardiac rehabilitation program in patients with ischemic heart disease. SIXTY male patients diagnosed as having ischemic heart disease, mainly post operative have been selected from patients referred to out patient clinic of the national heart institute. They have been randomly assigned into three groups to participate in three different intensities of aerobic exercise training for three months, three times per week. Cardiopulmonary exercise test and risk profile analysis have been conducted for all patients before and after the rehabilitation period. The result of this study revealed that the severe intensity of aerobic exercise produced safe and greatest improvement in the physical work capacity indices as it significantly increased the VO2 max, anaerobic threshold, and maximum workload. This in addition to the significant reduction in the resting heart rate, resting systolic, diastolic blood pressure, and maximum systolic, and diastolic blood pressure. Severe exercise had also induced a greater improvement in the risk profile indices, as it reduced the total risk score, cholesterol, triglycerides, total body weight, percentage of body fat, and LDL-C levels. It also showed a significant increase in the plasma level of high density lipoprotein.

Key words : Aerobic training, cardiac

rehabilitation, lschemic heart disease, physical work capacity,

risk profile, Physical Therapy.

مقارنة بين تاثير التمرينات الهوائية مختلفة الشدة : Arabic Title Page

على نتائج البرامج التاهيلية لمرضى قصور

الدورة الدموية للقلب.

Physical Therapy Department for Obstetrics and Gynaecology and its Surgery

Author : Hala Mohamed Hanfy Emara.

Title : Transcutaneous electrical nerve

stimulation versus acupressure in alleviating emesis and hyper emesis gravid arum during pregnancy.

Dept. : Physical Therapy Department for

Obstetrics and Gynaecology and its

Surgery.

Supervisors: Fahima Metwally Okeel, Ibrahim

Mahrous Kandil, Salwa Mostafa

EI-Badry.

Degree : Doctoral. Year : 2003.

Abstract :

This study was conducted to compare the effect of transcutaneous electrical nerve stimulation versus acupressure in alleviating emesis and hyperemesis gravidarum. Ninety volunteers primigravid women participated in this study . they were divided randomly into two groups (A and B)equal in numbers, each group was subdivided into three subgroups equal in numbers (A1, A2, A3)and (B1, B2, B3). subgroup (A1)treated with TENS, subgroup (A2) treated by acupressure and subgroup (A3)treated by antiemetics, while subgroup (B1)treated by antiemetics and TENS, subgroup (B2)treated by antiemetics and acupressure and subgroup (B3)treated by antiemetics only . the outcome measures included: heart rate, blood pressure, nausea and vomiting scores, haemoglobin and haematocrite. Assessment of bilirubin, alkaline phosphates, glutamic pyretic transaminase and glutamic oxaloacetic transaminase were done to the patients of group (B)only. the results of both groups showed decrease of heart rate in all subgroups, increase of systolic and diastolic blood pressures in both subgroups (B1 and B2)and increase of diastolic blood pressure in subgroup (A2), decrease of nausea and vomiting scores in all subgroups except both subgroups (A3)and (A2)respectively, increase of haemoglobin in subgroup (A1, B1 and B2) while it decreased in subgroup (A3), decrease of haematocrite in both subgroups (A1 and B1)and increase in both subgroup (A3 and B2), increase of bilirubin in subgroup (B1), increase of alkaline phosphates in subgroup (B1), increase of glutamic pyretic transaminase in subgroup (B2), increase of glutamic oxaloacetic transaminase in both subgroups (B1 and B2). accordingly, it could be concluded that TENS was found to be more effective and subgroup as an adjunct to acupressure in alleviating emesis and hyperemesis gravidarum.

Key words : Transcutaneous Electrical Nerve

Stimulation, TENS, acupressure, emesis gravidarum, hyperemesis gravidarum, Physical Therapy.

التنبيه الكهربي للعصب الحسى عبر الجلد مقابل : Arabic Title Page

الضغط الوخزى في تخفيف القي والقي الشديد

المتكرر اثناء الحمل.

Author : Soheir Mahmoud Ali El-Kosery.

Title : Efficacy of relaxation technique as

a prophylactic method in controlling preeclampsia.

Dept. : Physical Therapy Department for

Obstetrics and Gynaecology and its

Surgery.

Supervisors : Fahima Metwlly Okeel, Salwa

Mostafa El-Badry, Mohamed

Mostafa Radwan.

Degree : Doctoral.

Year : 2003.

Abstract:

This study was conducted to determine and compare the effectiveness of Mitchell's simple physiological relaxation technique and oral calcium supplementation versus oral calcium supplementation only in reducing the incidence of preeclampsia in highly risk pregnant women. Forty highly risk pregnant women at 16 weeks' gestation participated in this study. They were divided randomly into two groups (A and B)equal in numbers . Group "A" performed Mitchell's simple physiological relaxation technique and received oral calcium supplementation while, group "B" received oral calcium supplementation only. both groups were assessed by systolic, diastolic and MAP pressures, pulse, respiratory rate and proteinuria before and every 4 weeks after receiving the prophylactic treatment till the end of 32 weeks' gestation. it was found that Mitchell's simple physiological relaxation technique and oral calcium supplementation were more effective as a prophylactic method gestational hypertension and preeclampsia in group "A" were (15%) compared to (35%) in group "B".

Key words : highly risk pregnant women,

Mitchell's relaxation technique, proteinuria, gestational hypertension, preeclampsia,

Physical Therapy.

فاعلية الاسترخاء كوسيلة وقائية للتحكم في : Arabic Title Page

احتمالات حدوث تسمم الحمل.

Physical Therapy Department for musculoskeletal disorder and its Surgery

Author : Mohamed Farouk Ali.

Title : Electromyographic analysis of the

> extensor muscle during knee standing up and sitting down on

chair in knee osteoarthritis.

Dept. : Physical Therapy Department for

musculoskeletal disorder and its

Surgery.

Nadia A.Faiaz, Mohamed Reda **Supervisors**

Awad, Yahia Nassef Mohamed.

Degree : Doctoral. Year 2003.

Abstract

The purpose of this study was to find out the level of difference of quadriceps electrical activity between healthy and osteoarthritis knee joints during concentric and eccentric contraction. Forty volunteer subjects participated in this study. Ten healthy of them served as a control group. The other thirty subjects had knee osteoarthritis served as patients group. rigth quadriceps muscles of both groups were electromyogramed for vastus lateralis, rectus femoris and vastus medicals oblique during standing up and sitting down on chair without arm assistance . Average EMG data was normalized with that of maximal isometric contraction amplitude . results of these studies revealed that with knee osteoathritis there were significant increase of vastus lateralis amplittude and rectus femoris duration and significant decrease of vastus medialis oblique amplitude in comparison with the control group. Electrical activity of eccentric contraction was lower significantly than concentric contraction in osteoarthritic group. in conclusion, the results of this study proved that the electrical activity of quadriceps of osteoarthritic knee joints differed from the healthy knees and hence the physical therapy rehabilitation program must focus on eccentric contraction closed chain type of exercise.

Key words : kneesosteoarthritis, EMG,

> contraction quadriceps type,

Physical Therapy

تحليل التخطيط الكهربي لعضْلة فرد الركبة اتناء **Arabic Title Page :**

الوقوف واثناء الجلوس على كرسى في حالات التهاب الركبة العظمى المفصلي.

Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery

Author : Ali Mahmoud taha.

Title : Low intensity laser therapy in

osteoarthritis.

Dept. : Physical Therapy Department for

Neuromuscular and Neurosurgical

Disorder and its Surgery.

Supervisors : Abd El-Rahman A.R. Chabara,

Yehia Abd El-Hamid Badr, Ahmed

Abd El-Aziz Ahmed.

Degree : Doctoral.

Year : 2003.

Abstract :

The purpose of this study was to investigate the effect of photobiostimulation on chandroprotection and degradation processes in osteoarthritis. Seventy and five rabbits are divided in to equal seven groups and five rabbits (control group). Partial medial menisectomy was done and after three months each group was treated with different laser weave for one month. Histological study for knee joint of rabbits was performed after death. Studies revealed that laser therapy increased matrix formation, chondroblasts and cell nests of chondrocytes in deep parts of particular cartilage.

Key words : Osteoarthritis, low intensity laser,

laser therapy, Physical Therapy.

Arabic Title Page : الليزر منخفض الشدة في علاج حالات الالتهاب

العظمى المفصلى.

Physical Therapy
Department for
Growth and
Developmental
Disorder in Children
and its Surgery

Author : Amel El-Sayed H.Abd El-Karim.

Title : Role of specialized perceptual

motor training program in children

with chronic lead poisoning.

Dept. : Physical Therapy Department for

Growth and Developmental Disorder in Children and its

Surgery.

Supervisors : Emam Hassan El-Negamy, Gamil

Amin Tawdrous, Eman Ibrahim El-

Hadidy.

Degree : Doctoral. Year : 2003.

Abstract :

The purpose of this study was belt up around the investigation of the adverse effect of elevating blood lead level on children chronically exposed to lead, through evaluation of perceptual motor function of those children one hundred children comprised the study group, where 63 males and 37 female were selected at moderate blood lead level 20 -45 mg/dl and at age ranged from 7 to 15 years old . Another 30 normal children free from lead poisoning at the same age of study group were selected to be the control group. in this evaluation of perceptual motor abilities was evaluated by certain, scale quick neurological screening test (QNST), fine motor skill was evaluation by fine motor skill accomplished task measured per time as well as hand grip strength which measured by hand grip dynamometer scored per kilograms. The children of the study group were participated in specific designed perceptual motor program lasted after four months. Study group was evaluated per and post treatment program. Fine motor skills as well as handgrip strength were evaluated for control group to be compared with study group to point out specific disabilities. Evidences of this study revealed the significant differences between results of pre and post treatment program in the study group. This work also strongly supported the significant of perceptual motor program in treating perceptual motor disabilities in children chronically exposed to lead.

Key words : Children lead poisoning, perceptual

motor evaluation, treatment,

Physical Therapy.

دور برنامج متخصص لتدريب الادراك عند : Arabic Title Page

الاطفال المصابين بالتسمم المزمن للرصاص.

Author : Hebatallah Mohamed Kamal El-

Din Ibrahim.

Title : Effect of locomotion therapy on gait

pattern in spastic hemiparetic

children.

Dept. : Physical Therapy Department for

Growth and Developmental Disorder in Children and its

Surgery.

Supervisors : Hoda Abd El-Aziem El-talawy,

Hekmat Mohamed El-Ghadban,

Hala Ibrahim Ahmed Kassem.

Degree : Doctoral.

Year : 2003.

Abstract :

The purpose of this study was to evaluate the changes of gait pattern in spastic hemiparetic cerebral palsied children following the participation in a program of locomotion therapy inducing; treat mill and bicycle ergometer training in addition to a specially designed exercise program. sixty spastic hemiparetic children, ranged in age from 6 to 7 years old participated in this study. they were classified randomly into two groups of equal number, (control and study), the control group received traditional neurodevelopment program, addition to a specially designed exercise program . the study group received treadmill and bicycle ergometer training in addition to the program given to the control group. gait parameters were assessed before and after three months of application of the treatment program using motion analysis system (qualisys medical AB system). the results of the study revealed statistically highly significant improvement in all measuring variables of the study group (p< 0.0001)while, significant improvement (p< 0.001) was observed in the results of the control group. from the obtained results of this study, it can be concluded that, treadmill and bicycle ergometer are beneficial modalities that may be used to improve gait pattern in spastic hemiparetic cerebral palsied children.

Key words : gait, Physical Therapy.

Title Page : تأثير العلاج الحركى على انموذج المشى عند

الاطفال المصابين بالشلل النصفي التقلصي.

Author : Olfat Abdel Rahman Diab kandil.

Title : Spinal injury predictors for safe

lifting activities.

Dept. : Department of Biomechanics.

Supervisors : Nahed A. Salem, Mohsen M. El-

Sayyad.

Degree : Doctoral.

Year : 2004.

Abstract :

Given that prevention is superior to treatment, injury prevention requires prediction of the outcomes of the injurious nature of activity these have been manipulated through motion analysis system synchronized with EMG. Kinematics and Kinetic data were collected prior to and after voluntarily induced fatigue for back extensors, ankle joint dorsi and planter flexors. There was a significant difference in L5/S1 load pre and post fatigue. The results revealed direct predictors for compression and shear force that can be driven from the stepwise multiple regression models considering the effect of fatigue.

Key words : Spine, Motor Control, Fatigue,

Ergonomic disorder, MMH,

Physical Therapy.

متنبأت اصابة العمود الفقري نحو معاملة يدوية : Arabic Title Page

لرفع الاحمال اكثر امانا.

Author : Raafat Mohamed Fawzy.

Title : Relationship between some

predictor variables and isokinetic knee flexor and extensor torque in

young athletes.

Dept. : Department of Biomechanics.

Supervisors : Nadia Abd Elazeem Fayaz, Abd

Elaziz Mohamed Abd Elaziz Elsengergy, Ghade Mohamed EL

Hafez.

Degree : Doctoral.

Year : 2004.

Abstract :

The purpose of this study was to find out if age,weight,height,thigh grith,percentage of body fat,dominacy,and duration of training are good predictors of isokintic moment of force for both knee extensors and flexors . 121 young soccer players from Al-Ahly spotting club were a fanged in one group The peak knee extension and flexion torque production at two angular velocities (60/sec and 18/sec) were measured using Biodex isokinetic machine .Stepwise regression analyses were used to examine the relationship between each torque-dependent variable and the measured anthropometric independent variables . the results indicated that peak knee torque production can be predicted with statistically significant accuracy (multiple r = 88% to 91% for knee extension at 180% sec and 60% sec respectively and 66% to 78% at 180% sec respectively for knee flexion) the normative data and predictive models generated in this study can be used to establish muscular strength goals for patient rehabilitative programs.

Key words : Knee, Muscle, performance,

Soccer, Children, Rehabilitation,

Physical Therapy.

Arabic Title Page : العلاقة بين بعض المتغيرات التنبؤية والعزوم

الايزوكنيتيكية للعضلات القابضة والباسطة

للركبة في ناشئي الرياضيين.

Author : Magdy Mostafa Ahmed.

: Serum leptin response following Title

weight reduction program diabetic and non - diabetic obese

women.

Dept. : Physical Therapy Department for

Cardiopulmonary Disorders and

Geriatrics and its Surgery.

: Nagwa Mohamed Hamed Badr, **Supervisors**

Hazem Mahmoud Atta, Azza Fikry.

: Doctoral. **Degree**

Year 2004.

Abstract

Leptin is the protein product of obese (CB) gene in human. the known association between leptin and adiposity, and the suggested role of leptin in the control of body weight, led to the present study which was planned to determine the effect of weight reduction program on serum leptin, insulin, blood glucose levels and lipid profile in diabetic and non diabetic obese women . Samples from 60 obese women were classified into group 1 (30 diabetic obese women) and group ll (30 non-diabetic obese women). Lab. investigations (leptin , insulin , blood glucose and lipid profile levels) were performed 3 times (before the study, after 3 months, and after 6 months). Both groups were subjected to weight reduction program (diet regime and exercise) for 6 months. Leptin levels were higher (hyerleptinemia) in both groups before the study than after the weight reduction program serum leptin levels were positively cosseleked with body weight and BMI. This work confirms the other studies which suggsted that human obesity is probably due to leptin resistance and that weight reduction program best affecting serum leptin, insulin and lipid profile in both groups.

Kev words : leptin, obesity, diabetes, weight

reduction, Physical Therapy.

استجابة هرمون الليبتين لبرنامج انقاص الوزن **Arabic Title Page :**

في السيدات البدينات من مرضى وغير مرضى البول السكري.

Physical Therapy Department for musculoskeletal disorder and its Surgery

Author : Ibtissam Mohamed saab.

Title : The effect of changing the

frequency of bending load on bone formation after two different periods of unloading in adult

Wister rats.

Dept. : Physical Therapy Department for

musculoskeletal disorder and its

Surgery.

Supervisors : Bassem Galal El Din El Nahass,

Abdalla Sayed Ahmad Mohamed, Hana Abd El Kader Ibrahim Meky.

Degree : Doctoral.

Year : 2004.

Abstract :

The purpose of this study was to investigate the influence of changing frequency of mechanical bending load and two different periods of unloading on bone formation. One hundred-thirty (65 females, 65 males) adult Wister rats were randomly assigned into 3 control (I, II, and III) and 4 experimental (A1, A2, B1, and B2) groups. Control I and II were rail suspended for 2 and 1 week, respectively; control III were free movable; both tibiae of experimental groups A1 and A2 were treated for 2 weeks by 3-point bending load of 40N, with 1 and 2 Hz, respectively, for 36 cycles/day, every other day, after being suspended for 2 weeks; B1 and B2 received the same treatment but after suspension for 1 week. Measurements taken were tibial bone length (BL), bone strength (BS), calcium content (CaC), and histomorphometry. Results showed that, changing frequency from 1 to 2 Hz after both periods of unloading did not change significantly BL, BS, CaC, and osteoblast (ObS) and osteoclast (OcS) surfaces. Bone area (BA) showed slight increase while wall thickness (WT) and trabecular surface (TrS) demonstrated significant increases with 2 Hz compared to 1 Hz only after 2 weeks. We concluded that, the effect of changing bending load frequency on BA, WT, TrS, and ObS depends on the unloading period. Increase of strain rate after 2 weeks of unloading resulted in better enhancement in BA, WT, TrS, and osteboblast number and activity. Cortical bone was less affected by skeletal unloading than trabecular bone. Cortical bone cells sensitivity might be higher after 2 weeks of unloading while that of trabecular bone might be higher after 1 week.

Key words : load frequency, unloading, bone

formation, bone length, bone mechanical properties, bone calcium content, bone

histomorphometry;

Arabic Title Page : علي تأثير تغير تردد الحمل المسبب للآلتواء علي :

تكوين العظام بعد مدتين مختلفتين من عدم التحميل عند الفئران ويستر البالغين.

Zein El-Abden Hassan Morsv. **Author**

Title The effectiveness of flatfoot

> orthotics and muscle energy techniques in the management of

patellofemoral dysfunction.

Physical Therapy Department for Dept.

musculoskeletal disorder and its

Surgery.

Supervisors Mohamed Bassem El-Nahass,

Ossama Hegazi.

Degree Doctoral. Year 2004.

Abstract

The purpose of this study was to investigate the effect of postisometric relaxation combined with semi rigid flatfoot orthotics in the treatment of patellofemoral dysfunction resulting from excessive subtler promotion secondary to the flatfoot deformity, twenty patients with bilateral patellofemoral dysfunction were randomly assigned in one of two groups; both groups have received flatfoot orthotic, semi rigid type, active quadriceps isometric exercises and stretching of both quadriceps and hamstring muscles; the experimental group received besides the previous program post isometric relaxation twice weekly for eight weeks. The pain was evaluated by visual analogue scale of different activities as walking, ruining, stair activities, sitting for one hour and squatting; quadriceps angle measured from supine laying position and congruence angle using Merchant technique X-ray was also evaluated pre and post treatment simultaneously with gadriceps isometric toque using isokinetic machine (MERAC). however, both groups showed a significant difference between pre and post treatment measurements of the congruence angle, retro patellar pain and VMO muscle torque, the quadriceps angle was recorded no significant difference; , although a significant difference was recorded only in pain reduction and isometric quadriceps muscle torque, comparing group to the control one, the experimental group showed the means of differences of the experimental more improvement of congruence angle.the results of the study recommend the use of semirigid flatfoot orthotoc combined with post isometric relaxation of VMO and active exercise program in the management of patellofemoral dysfunction

Kev words : Patellofemoral dysfunction, malt racking, flatfoot, subtler probation,

footorthotics, muscle energy technique, post isometric relaxation

technique.

تأثير استخدام جبيرة تفلطح القدم واساليب الطاقة **Arabic Title Page**

العضلة في علاج الخلل الوظيفي لمفصل الرضفة مع اسفل عظمة الفخذ.

Physical Therapy Department for Neuromuscular and Neurosurgical Disorder and its Surgery

Author : Enas Elsayed Mohamed.

Title : Role of physical therapy in patients

with focal dystonia injected with

botulinum toxin.

Dept. : Physical Therapy Department for

Neuromuscular and Neurosurgical

Disorder and its Surgery.

Supervisors : Nahed Ahmed Salem, Mohamed

Soliman El-Tamawy, Mohamed

Nabil El-Bahrawy.

Degree : Doctoral.

Year : 2004.

Abstract :

The purpose of this study is to evaluate the effects of prolonged stretch and transcutaneous electrical nerve stimulation (TENS) on the overactive muscles in patients with cervical dystonia injected with botulinum toxin. Thirty patients of both sex participated in this study. The program consisted of; botulinum toxin injection with the suitable dose, prolonged stretch for 10 min each muscle and tens application for 30 min each muscle. The program was conducted for 8 weeks (three times / week). The patients were assessed before and after treatment regarding severity of dystonia, neck ROM at resting posture and the ratio between EMG amplitude under maximum contraction and spontaneous conditions. The results of this study show significant improvement of those variables in the study group. It can be concluded that this suggested program is effective in increasing the inhibitory effect in patients with cervical dystonia injected with botulinum toxin.

Key words : Focal Dystonia, Botulinum Toxin,

Prolonged Stretch, Transcutaneous Electrical Nerve Stimulation,

TENS, Physical Therapy.

دور العلاج الطبيعي في مرضى الخلل التوترى : Arabic Title Page

الموضعي الذين تم حقنهم بسم البتيولينوم.

Author : Hayam Mahmoud Sayed

Mahmoud.

Title : The use of vestibular galvanic

stimulation in stroke patients.

Dept. : Physical Therapy Department for

Neuromuscular and Neurosurgical

Disorder and its Surgery.

Supervisors : Naeima Hamdy Hassan, Ann Aly

Abd El-Kader, Magdy Ahmed

Arafa.

Degree : Doctoral.

Year : 2004.

Abstract :

The purpose of this study was to evaluate the effect of galvanic vestibular stimulation (GVS) on functional recovery and brain plasticity promotion in stroke patients. Forty spastic hemiplegic patients were randomly assigned equally into control / study group subjects. Both groups received the ordinary designed program of treatment. The study group received in addition to this transmastoid GVS. Both groups were treated three times per week for successive three months and evaluated pre and post treatment through clinical (muscle tone, muscle power, and functional activities assessment) and electrophysiological evaluation (somatosensory evoked potentials). Results showed that both groups were improved clinically and electro physiologically with significant improvement of study group subjects more than control group subjects. It was concluded that GVS is a beneficial central non-invasive modality to improve functional recovery and promote neural plasticity of stroke patient.

Key words : Vestibular Stimulation, Recovery,

Somatosensory, Evoked Potential, Plasticity, Stroke, Physical

Therapy.

Arabic Title Page : تنبية دهليز الاذن باستخدام التيار الكهربائي

المستمر في حالات مرضى السكتة الدماغية.

: Hoda Mohammad Zakaria Zaki. **Author**

Title **Task** oriented rehabilitation

therapy via early program of proprioceptive training in stroke

patients.

: Physical Therapy Department for Dept.

Neuromuscular and Neurosurgical

Disorder and its Surgery.

: Naima Hamdy Hassan, Magdy **Supervisors**

Ahmed Arafa, Abdel-Moez Abd El-

Aziz.

Degree : Doctoral. Year 2004.

Abstract

The purpose of this study was to determine the influence of task-oriented approach on functional outcome in stroke patients. Thirty stroke patients were randomly assigned into study and control groups. The study group recieved selected task specific training. The control group relived a conventional physical teary program. Each treatment program was conducted three times per week, for eight weeks. The patients were assessed for static and dynamic balance parameters, gait, functional outcomes, muscle tone and muscle strength of the upper and lower limbs, and handgrip. These measurements were recorded two times during the period of the study; pre-treatment and post treatment. The results of this study revealed statistically highly significant improvement in all variables of the study group. From the obtained results of this study, it can be concluded that task-oriented approach is a beneficial modality that can be used to improve the functional outcome in stroke patients.

Key words : stroke, rehabilitation, task.

training, proprioceotion, Physical

Therapy.

العلاج التأهيلي لعمل موجه من خلال التمرين **Arabic Title Page :**

المبكر للمستقبلات الحسية العميقة لمرضي السكتة الدماغية.

Author : Nashwa Sayed Hamed Mohammad.

relearning **Title** : Motor of gluteus maximums and gluteus mediums

muscles: its effect on standing

balance in stroke patients.

Dept. : Physical Therapy Department for

Neuromuscular and Neurosurgical

Disorder and its Surgery.

Naiema Hamdy Hassan, **Supervisors Omar**

> Elserafy, Salah Abd-Ameen

Elmonem Sawan.

Degree : Doctoral.

Year 2004.

Abstract

The purpose of this study was to investigate the effect of motor relearning program of gluteus maximums and gluteus mediums muscles on stroke patients' standing balance. Forty recent hemiplegic stroke patients were randomly assigned into study and control groups equally. Twenty normal subjects were assigned into the normal group. The study group received motor relearning program to the gluteus maximums and the gluteus Medias muscles. The normal group was evaluated by the Kinisiological integrated electromyography, balance assessment and muscle strength assessment. Both study and control groups were treated three times per week for successive six weeks. Assessment consisted of balance scores, muscle strength, kinisiological integrated electromyography, time of single leg stance and muscle tone of the affected lower limb . Serial evaluations were performed at pre-treatment, after two weeks, after four weeks and after six weeks. The results of this study showed that both groups were improved in all assessment results. However, the study group showed more significant improvement than the control group in balance scores, muscle strength scores, time of single leg stance as well as muscle tone scores. This improvement is postulated to the early use of motor relearning program. It was concluded that the motor relearning program of gluteus maximums and gluteus maximums and gluteus mediums muscles is beneficial for the improvement of standing balance of stroke patients.

Key words Motor relearning, stroke, standing

balance, Physical Therapy.

تأثير اعادة التعليم الحركي لعضلة الالبية العظمي **Arabic Title Page**

وعضلة الاليية الوسطي علي الوقوف المتوازن لدى مرضي السكتة الدماغية.

Physical Therapy
Department for
Growth and
Developmental
Disorder in Children
and its Surgery

Author : Ehab Kamal Abd El Moaty Zayed.

Title : Effect external high frequency

oscillation on some cardiopulmonary parameters after major upper abdominal surgeries.

Dept. : Physical Therapy Department for

Growth and Developmental Disorder in Children and its

Surgery.

Supervisors : Azza Abd El Aziz Abd El Hady,

Adel Abd El Hamed nossier, Khaled Abd El Hamed Nostafa.

Degree : Doctoral.

Year : 2004.

Abstract:

The purpose of this study was to evaluate the potential effect of external high frequency oscillation with negative baseline (EHFO-NB)on some cardiopulmonary parameters in oncological patients after major upper abdominal surgery . Forty male oncological patients following major upper abdominal surgery were randomly assigned equally in to control and study groups subjects. Both groups received conventional physical therapy treatment, but the study group received (EHFO-NB) in addition. Both groups were treated for two consequent days after zero days of operation and follow up daily up to one week. Cardiorespiratory parameters and blood gases were evaluated prior to, during, and one hour later of treatments application. Results showed that the cardiovascular and pulmonary complications were insignificant in both groups, with significant better oxygenation and carbon dioxide removal of study group than control group. It was concluded that EHFO-NB is beneficial physical therapy method in the early postoperative period after major upper abdominal surgery.

Key words : Hayek oscillator, postoperative

pulmonary complications, cardiorespiratory parameters, conventional physical therapy.

Title Page : علي الذبذُبات ذات التردد العالي الخارجي علي :

بعض المتغيرات الرئوية القلبية بعد جراحات

البطن العلوية الكبري.

Author : Ehab Mohamed Abo El-Soad Abd

El-Kafy.

Title : Proprioceptive training in the

rehabilitation of cerebral palsied

children.

Dept. : Physical Therapy Department for

Growth and Developmental Disorder in Children and its

Surgery.

Supervisors : Emam Hassan El-Negamy, Kamal

El-Sayed Shoukry, Ibrahim

Shoukry.

Degree : Doctoral.

Year : 2004.

Abstract:

The purpose of this study was to evaluate the effect of proprioceptive training in the form of joint compression in modulation of muscle tone and promotion of motor development in cerebral palsied children. Twenty children of spastic type aged from 1 to 4 years participated in this study. They were divided randomly into four groups of equal numbers (three study one control groups), in addition to ten cerebral palsied children of hypotonic type of the same age range also participated. They were divided into two groups, ten cases each (one study group another control group). All participated groups received a traditional physical therapy program. Various joint approximation training was also added to the study groups program. the H/M ratios and motor development levels were recorded before and after the suggested treatment, using computerized EMG apparatus Denver developmental screening test respectively. Treatment was conducted for 3 months at 3-times/ week basis. The results of this study revealed a significant H/M ratios reduction in the study spastic groups and a significant H/M ratio increase in the two hypotonic groups. The results also showed a significant motor development improvement in all participated groups from the obtained results it can be concluded that joint approximation may be considerer an important treatment modality that can modulate muscle tone and enhance motor development.

Key words : cerebral palsy, proprioceptive

training, joint approximation, H/M

ratio, Physical Therapy.

معارسة اعادة تاهيل الذاتي في ممارسة اعادة تاهيل : Arabic Title Page

الاطفال المصابين بالشلل المخي.

Author : Heba Mohamed Youssr Mohamed

El Basatiny.

Title : Postural control training: effect on

balance and locomotion in

hemiparetic children.

Dept. : Physical Therapy Department for

Growth and Developmental Disorder in Children and its

Surgery.

Supervisors : Amira Mohamed EI-Tohamy,

Elham EL-Sayed Salem.

Degree : Doctoral.

Year : 2004.

Abstract :

The purpose of this work was to study the effect of postural control training on balance Locomotion in spastic hemiparetic children. The study was conducted on forty-two children, ranging in age from 7 to 12 years from both sexes , they include: fifteen normal children served as control group (A) twenty-seven ambulant spastic hemiparetic children as study group (B) . They received a balance training program on Biodex system in addition to a physical therapy program 3 times/week for 3 months. The post treatment stability indices gait parameters results showed significant improvement in balance Locomotion of study group (B) after treatment which confirm the importance of postural control training (by using Biodex system) in the rehabilitation program of spastic hem-iparetic children .

Key words : Postural, Control, Balance,

Locomotion, Hemiplegic, Physical

Therapy.

التدريب على التحكم القوام وتاثيره على الاتزان : Arabic Title Page

والتنقل عند الاطفال المصابين بالفالج.

Author : Abeer abd Al Rahman Mohamed.

Title : Effect of pulse configuration of

induced current on sciatic nerve

regeneration.

Dept. : Department of Basic Science.

Supervisors : Wadida Hassan Abd Elkader, Fadel

Mohamed Ali, Soheir Assadd

Filobbos.

Degree : Doctoral.

Year : 2005.

Abstract:

The purpose of this work was to study the effect of induced electrical current with specific pulse configuration (shape, frequency and amplitude) that nearly resonates with the pulse for biological excitation of the sciatic nerve and Nerve Growth Factor (NGF) on regeneration of rat sciatic nerve. Surgical crushing of the left sciatic nerve of sixty rats was done. The rats were divided according to treatment into two equal groups; (1) Untreated control group and (2) Treated group received specific pulse determine by preliminary study for 45 min daily for up to five weeks. This pulse had RC-Square Amplitude Modulating Wave (RC-SAMW) shape with 2.5 Hz frequency and 2.5 Vpp amplitude carried on 0.5MHz wave carrier frequency and 10 V pp amplitude. The regeneration rate was measured by Sciatic Function Index (SFI), Toe Spread Reflex (TSR) and histo-morphometeric study after one, three and five weeks postoperative. The results indicated that SFI and TSR improved progressively in Treated group and the improvement % was 83% and 89% compared to 68% and 71%% in Untreated group after five weeks, respectively. The number of myelinated nerve fiber/ standard measuring frame, area and area % of myelination and optical density of sum and mean grey of myelination were significantly higher in Treated group than Untreated one, where the P value < 0.0001, 0.001, 0.01 and 0.001 consequently after five weeks. The study concluded that induced electrical current with 2.5 Hz RC-SAMW enhances early function and morphologic regeneration of the crushed sciatic nerve, probably by accelerating axonal degeneration, stimulating nerve sprouting and myelination.

Key words : Histology, Induce electrical current,

Morphometery, peripheral nerve regeneration, Pulse configuration, Sciatic nerve, Sciatic Function

Index.

Arabic Title Page : تأثير تكوين النبض للتيار المتولد على تجدد

عصب النسا.

Author : Afaf Ahmed Mohamed Shaheen.

Title : Influence of designed resonance

electromagnetic impulses on

skeletal muscles regeneration.

Dept. : Department of Basic Science.

Supervisors : Fatma Sedeek Amin, Fadel

Mohamed Ali, Safinaz Salah EI-

Dein Syed.

Degree : Doctoral.

Year : 2005.

Abstract :

The present study was conducted to investigate the effect of designed resonance electromagnetic impulses on skeletal muscles regeneration. Methods: the study participated into pre and post repeated measure design. One hundred and fifty adult male Swiss albino rats were used and all rats were exposed to crush injury by applying standered mechanical pressure (4.25 kg/cm²=2 bar). The study was divided into two major parts; preliminary (30 rats) to design the electromagnetic impulses with specific characteristics that can resonate with endogenous impulses of skeletal muscle. Experimental study was done on 120 rats. The rats were equally divided into two major groups (A&B) for histological, histochemical and physiological evaluation. Each group was equally divided into three subgroups according to the time treatment and evaluation at 5, 10 and 15 days. Each subgroup was equally divided again into untreated and treated subgroups. All treated subgroups were exposed to amplitude modulated sine wave (AMSW) of 2Hz and amplitude 2Vpp carried by 10 MHz and amplitude 10 Vpp 30 minutes/day up to 5,10 and 15 days. The effect of AMSW was studied through the measurement of histological, histochemical (collagen deposition, glycogen and carbohydrate storage and total protein content) and functional (twitch and tetanic contraction) evaluation. Results: The results revealed significant decrease in collagen deposition to approximate the normal value in treated subgroups as compared with untreated ones, there were marked improvement of glycogen and carbohydrate storage and total protein content in treated subgroups relative to normal as compared with untreated ones. Also there was progressive improvement of functional parameters of skeletal muscle in the form of twitch and tetanic contraction in treated subgroups as compared with untreated ones. Conclusion: AMSW succeeded to resonate with endogenous impulses of skeletal muscle and enhance its regeneration. This study may be considered as a novel treatment protocol of skeletal muscle without fibrosis post injury.

Key words : Electromagnetic field, amplitude

modulated wave, resonance frequency, crush injury, skeletal muscle regeneration, collagen, glycogen storage, protein content,

twitch and tetanic contraction.

Arabic Title Page : تاثير النبضات الكهرو مغنطيسية الرنينية

المصممة على تجدد العضلات الهيكلية.

Author : EI Sayed Ayad.

Title : The role of preventive balance

training in improving function and reducing incidence of knee injury -

a study on football players.

Dept. : Department of Basic Science.

Supervisors : Bassem G. EI Nahass, Alaa El Din

Balbaa.

Degree : Master. Year : 2005.

Abstract :

The purpose of this study was to clarify the importance of tive balance training for football players. A comparison was held n two homogenous competitive footballer groups (A and B). Both '8 received a traditional football training program but group (A) received preventive balance training program in addition. Training outcome was determined from stability indices, directional control, scores of 4 hoping tests and incidence of serious knee injuries. The results of the showed that combining a balance training program with the traditional football training program is important for improving dynamic ice, DLS, and lower limb functional predominance, and reducing incidence of serious knee injuries.

Key words : Knee, Preventive training, Balance

training, Dynamic balance,

Incidence of injury.

دور تمارين الاتزان الوقائي في تحسين الوظيفة : Arabic Title Page

وتقليل حدوث اصابة الركبة: دراسة على لاعبي

كرة القدم.

Author : Mones \mathbf{El} Saved Mohamed El

Azzawi.

Title : Efficiency of selected physical

> programme therapy in the prevention and treatment of

osteoporosis.

Department of Basic Science. Dept.

Mohsen **Mohamed** El-Sayyad, **Supervisors**

> Samy Abd **El-Samad** Nassef.

Mohamed Omar M. Khodair.

Degree Doctoral.

Year 2005.

Abstract

Background: Osteoporosis is a systemic skeletal disorder characterized by decreased bone mass and deterioration of bony micro-architecture. The result is fragile bones and an increased risk for fracture with even minimal trauma. The role of Therapeutic exercise and other modalities in treatment and prevention are debatable. The purpose: The purpose of the study was to investigate the effect of APS therapy and exercises program in BMD index, blood calcium, and alkaline phosphate on BMD index. Subjects: Forty-four post-menopausal, female patients were selected and assigned randomly into two groups, Group I (APS Therapy) and Group II (Exercise Therapy). These two main groups were each then sub-divided into 4 subgroups according to their ages a (50-55), b (55-60), c (60-65) and d (65-70). Group I (APS Therapy Group) Twenty-three patients received doses of 1000 mg of calcium per day and APS Therapy sessions of 16 minutes duration, three times per week for six months. Group II (Exercises Group) Twenty-one patients received the same doses of calcium as Group I and selective therapeutic exercise program of varying intensities. Design pre and post control and experimental study. Method: APS devices delivering a periodic, direct current and pulsed electric field. The pulse waveform was a brief mono-physic square pulse (duration 16 ms) followed by exponential decay to base level. The median of the applied current strength was set to 600 µA for all the experiments. Results: in Group I a, the mean value of BMD of Ultra distal before treatment was 0.425±0.069 gm/cm² and became 0.455±0.063 gm/cm² with significant of (p<0.00). In Group II a, the BMD mean of Ultra distal before treatment was 0.445±0.079 gm/cm² and became 0.594±0.078 gm/cm² with a significant result of (p<0.03). The T-score mean was -2.950±0.629 % and became -2.493±0.703 %, the significant was (p<0.041). In Group I b, the BMD mean of Ultra distal before treatment was 0.462 ± 0.087 gm/cm² and became 0.470 ± 0.101 gm/cm² with significant of (p<0.001) and the mean value of T-score before treatment was - 2.423 ± 0.794 % and became -2.336 ± 0.922 % and the significant was (p<0.005). Discussion and conclusion: The selective modified exercise program three times per week for sex months combined with APS treatment has been shown to have a positive effect on BMD. Physical therapists should educate patients about Osteoporosis and encourage them to follow preventive measures, including adequate calcium and Vitamin D intake, exercise and cessation of smoking.

Key words Bone mineralization, BMD, APS

therapy, Exercise Program.

مدي فاعلية برنامج العلاج الطبيعي المُختارفي المُختارفي العلاج و الوقاية من هشاشة العظام. **Arabic Title Page**

Author : Naglaa Fathi Ewais.

Title : Three-dimensional range Of motion

analysis of the upper extremity in

normal subjects.

Dept. : Department of Basic Science.

Supervisors : Mohsen Mohamed EI Sayyad,

Wadida Hassan Abd EI kadder,

Amal Ahmed Fawzy.

Degree : Doctoral.

Year : 2005.

Abstract :

Background: diagnosis and treatment of many orthopedic and neurological disorders could benefit from assessing range of motion of the upper extremities. Only a few studies are published regarding normal range of upper extremities, and most of them are from the western hemisphere. The purposes: this study was conducted to provide normal values of active range of upper extremity of the Egyptian population measured by three dimensional analysis systems and to study the effect of gender and dominance on those values. Subjects: the study was conducted on two groups, their ages ranged from 18 to 22 years. Group (A) included 30 subjects (15 males &15 females), group (B) involved 50U subjects (250 males& 250 females). Design: it was a one shot study; measurements were recorded from one side (dominant side) in group B, while the measurements were taken from both sides (dominant and non-dominant side) in group A. Results: The 3-D angles in male subjects were144.23°, 54.15°, 148.1°, 72.38° and, 78.31° for shoulder flexion, hyperextension, abduction, int. rotation, and ext. rotation respectively The 3-D angles of elbow flexion, wrist flexion, and wrist extension were 149.02°, 60.7° 2, and 53.76° respectively. In female subjects, the kinematics measurement of the 3-D angles of shoulder flexion, hyperextension, abduction, int. rotation, and ext. rotation were 144.95, 51.1°, 147.07°,74.33°, and 78.19° respectively. For elbow flexion, wrist flexion, and extension were 151.3°, 60.97°, and 53.57°. Conclusion: This study demonstrated excellent intra-rater reliability, and found differences in 3-D motion analysis of upper extremity in males and females. Some differences between dominant and non-dominant were found in females, but no differences found in male's subjects. The introduction of 3-D analysis in standardization of human movement provides a language for clinical evaluation in the practice of physical therapy.

Key words : ROM, upper extremity, joint

angles, three-dimensional analysis

of motion, gender, race.

معليل ثلاثي الأبعاد لمدى حركة الطرف العلوي : Arabic Title Page

للأشخاص الطبيعيين.

Author : Shimaa Nabil Abol Azm.

Title : Plantar pressure distribution with

different body weights in normal

subjects.

Dept. : Department of Basic Science.

Supervisors : Soad Mohamed, Samy Nasif, Amal

Fawzy.

Degree : Doctoral.

Year : 2005.

Abstract :

Foot is one of the most important weight bearing and shock absorbing structures in the human body during ambulation. The approach to caring for the painful foot is undergoing significant change within the physical therapy community. However, there is gap of knowledge in studying the effect of body weight on plantar pressure distribution. This study was conducted to investigate the effect of increasing body weight on the distribution of plantar pressure in normal subjects. 300 normal subjects (160 females and 140 males) participated in the study with average weight 79.25 ± 5.26 kg, average standard weight 66.88 ± 5.8 kg, average age 21.95 \pm 3.2 years and average height 172.72 \pm 5.26 em. subjects were equally divided into four groups according to body weight. The plantar pressure distribution was measured for every subject under which points four points of each foot during static condition. These points were mid heel, big toe, head of 1 st metatarsal, and lateral aspect of the foot. Comparison between the four groups were done using ANOVA test. The results revealed significant difference between the four groups while, there was no significant difference at the lateral aspect of the foot. on the level of mid heel there was high significant difference between the four groups. There was significant difference between GI, GII, and GIII, respectively. On the other hand there was no significant difference between GII and GIIL On the level of head of 1 st metatarsal there was significant difference between the four groups. There was no significant difference between GI and GII, while there was high significant difference between the other groups. There was no significant difference between GI,GII, and GIII respectively. While there was high significant difference between GI, and GIV. Other comparisons were statistically insignificant. On the level of lateral aspect of the foot, there was no significant difference between the four groups. Independent t test was used to compare the pressure distribution between dominant and non-dominant foot, which revealed a significant increase with increasing weight. So, with increasing bodyweight, care should be taken to reduce pressure under specific points of the foot. And the design of footwear should also be changed according to the percentage of overweight.

Key words : foot, plantar pressure, body

weights, biomechanics, foot ulcers.

Title Page : تأثير اوزان الجسم المختلفة على توزيع الضغط

اسفل القدم في الاشخاص الطبيعين.

Department of Biomechanics

Author : Samiah Mohamed Ibrahim.

Title : Effect of a comprehensive

treatment program in improving gait parameters and energy expenditure in patients with

unilateral hip osteoarthritis.

Dept. : Department of Biomechanics.

Supervisors : Amira Mohamed El Tohamy,

Ahmed Hassan Hussein, Mustafa

Hussein Gad.

Degree : Doctoral.

Year : 2005.

Abstract :

The purpose of this study was to examine the effect of two treatment programs, one involving all body segments and one applied only to the affected side of patients with unilateral hip osteoarthritis on their spatial gait parameters and energy expenditure. The study included 40 male patients, they were randomly assigned into two equal group. Group 1 received a comprehensive physical therapy program for all body segments while group 2 received localized treatment for affected side only. The study also included 20 healthy volunteers' subjects for comparison. The measurement of gait parameters was conducted by using foot print method, while the oxygen consumption was measured by using the oxygen analyzer (Oxycon 3). The results showed that both treatment programs achieved significant improvement in the measured gait parameters. Oxygen consumption decreased significantly in both groups. However, comparison between the two groups showed that group 1 achieved significant results than group 2. That indicates that treatment programs which include all body parts are more favorable in treating OA hip.

Key words : Hip joint, Oxygen consumption,

osteoarthritis, Gait, Exercise,

Arabic Title Page : تأثير برنامج علاجى شامل على مقومات حركة

المشكى واستهلاك الاكسجين في المرضى المصابين بالتهاب عظمى مفصلى في أحد مفصلى

فخد

Soheir Mohamed Abd EL-Rahman. **Author** : Influence of sudden unexpected Title

loads on trunk muscles response in

normal individuals and low back

pain patients.

: Department of Biomechanics. Dept.

Supervisors : Mohamed Foad Ibrahim Khalil,

Nadia Abd El Azim Fiaz, Salam

Mohamed El Hafz Ali.

: Doctoral. **Degree** Year 2005.

Abstract

The purpose of this study was to clarify how trunk muscles respond to unexpected loads and identify the differences between patients with mechanical LBP and normal subjects as regarding to muscles pattern response to sudden unexpected loads. Also to determine the change in the trunk flexion angle in response to this load. Forty male subjects participated in this study and were classified into two equal groups (twenty patients with mechanical LBP and twenty normal control subjects). Each subject was asked to stand on the ground in the cameras field with extended knee and flexed elbow at the level waist to catch the falling weight. Another person stood in front of him and holds briefcase with unknown weight at the level of the subject shoulder and suddenly dropped it on the subject hands. The raw surface EMG signals were recorded using surface EMG electrodes from erector spine and rectus abdominals muscles (right and left) during, (1) maximum isometric voluntary contraction (MIVC), (2) unexpected trunk loading with 3 different weights (2 kg, 7 Kg, and 10 Kg), (3) expected trunk loading with 3 different weights (2 Kg, 7 Kg, and 10 Kg). The trunk flexion angle was measured simultaneously with the EMG activities during the previous experimental conditions by using Qualisys motion analysis system. The results of this study indicated that during sudden unexpected trunk loading there was increased trunk muscle response and trunk flexion angle (trunk displacement) compared with expected loading condition. The results also revealed that patients with mechanical LBP, contrary to normal subjects, demonstrated a significant increase in muscle response pattern in response to sudden load. These differences may either constitute a predisposing factor to low back injuries or a compensation mechanism to stabilize the lumbar spine.

Key words Unexpected : LBP, load, electromyography, trunk muscles.

تاثير الأحمال غير المتوقعة على استجابة

عضلات الجذع في الأشخاص الأصحاء و مرضى : Arabic Title Page ألام أسفل الظهر

Physical Therapy Department for Obstetrics and Gynaecology and its Surgery

: Said Abd El-Ghany Mohamed. **Author**

Title : Effect of exercises on osteoporotic

postmenopausal women.

: Physical Therapy Department for Dept.

Obstetrics and Gynaecology and its

Surgery.

Salwa Mostafa El-Badry, Osama **Supervisors**

Abd el- Aziz El-Shenofy, Amel

Mohamed Youssef.

Degree : Doctoral.

Year 2005.

Abstract

This study was done to investigate the effect of exercise on osteoporotic postmenopausal women and to determine which type of exercise is more effective in treating them. One hundred asymptomatic osteoporotic postmenopausal women were selected from Outpatient Clinic of Agouza Rehabilitation Center of the Armed Forces. Their age ranged from 55 to 65 years old, they were postmenopausal for at least 5 years, body mass index (BMI) did not exceed 30 Kg/m2 and parity not more than three times. They were assigned into four equal groups: Group (A) walked daily (brisk walking) 60 minutes in fresh air for 9 months, group (B) performed specific aerobic exercise program for hip and lumbar spine for 6 months followed by daily brisk walking for another 3 months, group (C) performed weight bearing exercise program on treadmill for 6 months followed by daily brisk walking for another 3 months and group (D) led their normal life throughout the study. Results revealed that brisk walking daily in fresh air for 60 minutes and specific aerobic exercise program for hip and lumbar spine muscles as well as weight bearing exercise on treadmill for 6 months followed by brisk walking for another 3 months are effective methods for treating osteoporotic postmenopausal women, accordingly, weight bearing exercise on treadmill is more efficient than the other types of exercise in treating of osteoporotic postmenopausal women.

: Osteoporosis, **Key words** Postmenopause,

Exercise, Alkaline phosphatase,

Calcium.

تأثير التمرينات على هشاشة العظام لدى السيدات بعد انقطاع الدورة الشهرية. **Arabic Title Page:**

Physical Therapy
Department for
musculoskeletal
disorder and its
Surgery

Author : Mohamed Shawki Abd EI Salam

Mohamed Attman.

Title : Evaluation of feet pressure and

balance in patients with unilateral

palantar fasciitis.

Dept. : Physical Therapy Department for

musculoskeletal disorder and its

Surgery.

Supervisors : Ahmed Hassan Hussien, Yehia

Nassef Mohmed, Enas Fawzy

Youssef.

Degree : Doctoral.

Year : 2005.

Abstract :

This work aim at detecting alterations of fact pressure and balance in patients with unilateral asciitis, and correlating them, of any to pain and functional disability. This was done by larison of patients (group 1-20 patients) and healthy volunteers (20 subject). Comparison within between groups, correlation within group I were done. Results showed alteration in foot pressure and balance in both feet of group I, and correlation between these alterations to pain and functional disability. It was recommended to add balance training to treatment for these patients.

Key words : Plantar fasciitis, balance, foot

pressure, pain, function.

معط القدمين والاتزان في مرضى : Arabic Title Page

التهاب صفاق الأخمص باحدى القدمين.

Department of Basic Science

Author : Abd EI Hamid Yassin Zaalook.
Title : Effect of exposure to fifty hertz

low intensity magnetic field on the

lymphoid tissues of rats.

Dept. : Department of Basic Science. Supervisors : Fatma Sedeek Amin, Fadel

Mohamed Ali, Ahmed Mohamed

Fathi Afifi.

Degree : Doctoral.

Year : 2006.

Abstract :

This study investigated the effect of exposure to fifty HZ, 0.2 mT (2 Gauss) MF on the lymphoid tissues of Rats. For this purpose sixty adult male albino rats were divided into 3 main groups (I.II And / III) 20 animals per each groups (I) used as control group (II) continuous exposure for one month / III) intermittent exposure for 8 hours daily for one month, then all animals were subdivided into subgroups of 10 rats. These Six groups of 10 rats per each were used 5 in the present work (Groups I a and b) were used as controls. (Group II a) were continuously exposed or for one month. (group III a) were intermittently exposed 8 hours daily to Same MF, All animals of groups Ia , II a and III a were scarified immediately after exposure while those of groups I b. II b and III b were examined 30 days later after first exposure duration. All lymphoid organs (thymus, hone marrow, spleen and Lymph node) and peripheral blood (PB) were histologically examined by using light microscope. The results indicated presence many histopathological alterations, the incidence was higher in continues exposure group (II a) to MF than intermittent exposure group (III a) for the same MF. Also histopathological alterations decrease or completely disappeared in both groups II b and 111 b (the groups left 30 days away from MF exposure after first exposure (duration) in comparison to control group (I b).

Key words : magnetic field, Iyrnphoid organs,

immune system.

Arabic Title Page :

تأثير التعرض للمجال المغناطيسي منخفض الشدة، وبتردد خمسون هيرتز على الأنسجة الليمفاوية للفئران.

Author : Sahar M. Adel EI-Hakke.

Title : Three-dimensional lumbar motion

analysis in normal and low back

Is function.

Dept. : Department of Basic Science.

Supervisors : Mohsen M. EIIyyad, Ragia Kamel,

Degree : Doctoral.

Year : 2006.

Abstract :

Background: Considering the overall expenses involved in treating low back dysfunction (LBD), the condition has broad implications. Purpose: establishing baseline of normal profile and compare with lumbar profiles in low back dysfunction during functional activity. Subjects: 100 subjects were examined 50 healthy and 50 LBD patients). Their age ranged from 30-50 years, with mean age of (39.46 \pm 5.66), weight (78.78 \pm 3.19), and height (163.04 \pm 4.95) for normal subjects. And mean age of (39,86 \pm 4.29), and weight (80.52 \pm 5.26) and height (163 \pm 4.28) for low back dysfunction patients. Method: Intra-rater reliability of the Qualisys motion capture device of 30 subjects was investigated. The Qualisys motion capture system was used to measure the amount of thoracic, lumbar, hip, knee angles during forward bending. Results: There is a significance difference in spinal flexibility, lumbar profiles, and hip-lumbar angle p =0.000 between normal (11.92±1.77, 45.57±3.8, 117.71±6.60) and LBD $(7.90 \pm 1.04, 43.27 \pm 3.34, 114.36 \pm 4.24)$. There is a high significant correlation between BMI and lumbar angle r = 0.766. Conclusion: Low back dysfunction patients have less mobility than normal subjects in regarding to spinal flexibility, lumbar angle, hip - lumbar angle. LBD patients showed high degree of impairment measured by the functional rating index and correlated with the duration of the impact of low back dysfunction.

Key words : Normal profile, Low back dysfunction

profile, Qualisys motion capture system, Hamstring flexibility, functional activity.

Arabic Title Page:

دراسة ثلاثية الأبعاد لحركه الفقرات القطنية في الأشخاص الطبيعيين والمصابين بألم أسفل الظهر.

Department of Biomechanics

Author : Amr Almaz Abdel-Aziem.

Title : Energy expenditure in normal

subjects of different body height and individuals with lateral ankle

instability.

Dept. : Department of Biomechanics.

Supervisors : Mohamed Fouad Ibrahim Khalil,

Salam Mohamed El-Hafez, Nagui

Sobhi Nassif.

Degree : Doctoral.

Year : 2006.

Abstract :

The aim of the study was to identify the relationship between different body height and energy expenditure, and to determine how much lateral ankle instability increases the energy expenditure. Seventy eight volunteers participated in the study. They were divided into three groups, group (A) consisted of 26 subjects with body height of 165-174 cm and mean height of 169.5 cm (± 3.3) and mean weight of 69.8 kg (± 11.1), group (B) consisted of 26 subjects with body height of 175-185 cm and mean height of 179.5 cm (± 3.4) and mean weight of 80.5 kg (± 12.4), and group (C) consisted of 26 subjects suffering from chronic lateral ankle instability their body height was 165-185 cm and mean height was 174 cm (\pm 7) and mean weight of 75.35 kg (\pm 13.7). Each subject walked on the treadmill at two speeds 3.5 km/h and 5 km/h for thee minutes with resting period of twenty minutes between the two tests. Before each test there was 3 minutes of warm up at 1.5 km/h, and after each test there was 3 minute of recovery at 1.5 km/h. The oxygen consumption, ventilation minute, energy expenditure, and energy expenditure index at the two speeds are measured by using ZAN 100 flow handy Π medical device with a PC- connected to open spirometry system, and external pulse meter. Results revealed that there is no significant difference in energy expenditure and oxygen consumption between the three groups at 3.5 km/h. At speed 5 km/h there is no significant difference between group (B) (175-185 cm) and group (A) (165-174 cm) in oxygen uptake, but oxygen uptake of group (C) CAI is higher than group (A) and (B), rather than energy expenditure of group (C) CAI is higher than group (A) only but equal to group (B) that due to ANOVA test of weight revealed that group (B) has significant heavier weight than group (A) and (C).

Key words : Energy Expenditure, Oxygen

Consumption, Body Height,

Chronic Ankle Instability.

Arabic Title Page : الطاقة المستنفذة عند الاشخاص الاصحاء

مختلفى الاطوال والاشخاص الذين يعانون من

عدم ثبات مفصل الكاحل من الخارج.

Author : Medhat Hussien Elnazer.

Title : Effect of flexible and semi rigid

lumbosacral supports on the loads of the lumbar spine at different

trunk positions.

Dept. : Department of Biomechanics.

Supervisors : Mohamed Fouad Ibrahim, Magdy

Ibrahim EI Bassiouni, Ghada

Mohamed EI-Hafez.

Degree : Doctoral.

Year : 2006.

Abstract :

This study was conducted to investigate the effect of two types of lumbosacral belts on different radiographic and mathematical measurements of the lumbar spine in neutral standing and in 60 degrees trunk flexion. Forty healthy males with age ranged from 20 to 35 years participated in the study. Three lateral radiographs for the spine, from TIS I, were taken for each subject in each of the study positions. The first radiograph was taken while the subject without belt, the second and third radiographs were taken while the subject was wearing flexible belt and semirigid belt. Hand held'goniometer was used to obtain the 60 degrees trunk bending position. From the radiographs, vertebral inclination angles, disc inclination angle from TI -S I were measured and fed in a 2dimensional model to calculate the shear and compressive forces on each lumbar disc then these forces were normalized with respect to the body mass of each subject. The results showed that, in neutral standing, there was significant decline of the disc inclination angles toward the cephalic direction from L5-S I to LI -L2 discs without a significant difference between conditions, (P>0.05). In 60° trunk flexion, both types of belts reduced the disc inclination in the lower lumbar level while it increased the inclination in the upper levels toward the kyphosis. These results were quantified by calculating the amount of disc inclination while moving from standing to 60° trunk flexion that showed statistically significant reductions of the angles of disc inclination in the lower lumbar levels with significant increase in the disc inclination angles of the upper levels, at P<0.05. Analysis of the normalized shear and compressive forces revealed that there was no significant difference between all conditions on any of the disc levels except that on L5-S I disc as in standing, normalized shear showed significant reduction in both belt conditions, while in bending there was a significant increase in the normalized compressive values while using the two types of belt. From these results, it was concluded that both types of belts did not change the alignment of the lumbar spine in standing position but they changed the pattern of lumbar intervertebral disc inclination during 60 degrees trunk flexion. In addition, both types of belts have reduced the normalized shear on L5-S I disc in standing position and so, both belts could be recommended to prevent the shear injuries and to relive the shear stresses for patients with spondylolithesis.

Key words : lumbar spine, mechanics, belts,

loads, trunk bending.

تأثير السندات القطنية العجزية المرنة : Arabic Title Page

والمتوسطة الصلابة على احمال العمود الفقري

فى اوضاع مختلفة للجذع.

Physical Therapy
Department for
Cardiopulmonary
Disorder and
Geriatrics and its
Surgery

Author : Khaled Takey Ahmed Abd –Allah.

Title : Influence of different therapeutic modalities on dynamic balance in

elderly.

Dept. : Physical Therapy Department for

Cardiopulmonary Disorder and

Geriatrics and its Surgery.

Supervisors : Awny F. Rahmy, Gehan A.El

Zarea, Al Sayed A. A. Shanb.

Degree : Doctoral.

Year : 2006.

Abstract :

The purpose of the present study was to investigate the effects of Isokinetic and balance training programs on muscular strength and balance indices to prevent falling in the elderly. Sixty elderly subjects were participated in the t study and assigned to two equal groups. The age of the first group ranged from 65 to 75 years . The age of the second group ranged from 65 to 72 years. Two evaluation methods were carried out for both balance indices ,which were measured by Biodex stability system, and muscular strength peak torque(PT), which was measured by Biodex Isokinetic for both sides. The evaluation procedures were measured before and after the rehabilitation program. The rehabilitation three times per week, and for six months. At the end of the training program, group 1 recorded higher percentage of improvement than group II in PT . There were non significant correlations between improvement in extensor or flexor PT at 60 degrees per sec and stability indices .Also, there was non significant correlation between percentage change in PT at 180 degrees per sec and percentage change in stability indices on the left side. it can be concluded that Isokinetic and stability training program is a beneficial therapeutic modality to improve strength and balance in different directions. In addition to decreased risk of fall and fear of falling.

Key words : dynamic balance, knee quadriceps.

Arabic Title Page : الإتزان العلاجية المختلفة على الإتزان

الحركي لدى المسنين.

Author : Osama Safwat Lewis.

Title : Correlation between brachial blood

flow and electrocardiogram measures after body weight control in males with high coronary artery

risk.

Dept. : Physical Therapy Department for

Cardiopulmonary Disorder and

Geriatrics and its Surgery.

Supervisors : Nagwa Mohamed Hamed Badr,

Afaf Al Sawi, Awny F. Rahmy.

Degree : Doctoral.

Year : 2006.

Abstract :

The aim of this study was to find the correlative relationship between brachial blood flow and electrocardiogram measures, in turn planning for early prevention in susceptible to get coronary artery occlusion, through intervention methods including lipid profile control and body weight adjustment. Sixty volunteer males had been recruited from the out-clinic of physical therapy, EI-Matarya teaching hospital. Their age > 30 years. Their weight and height allowed them to be within the range of obesity class; according to body mass index (BMI) equation, attended a program of aerobic exercise and diet. The results can be used, as a reference for the present study to show the presence of correlation between brachial blood flow and electrocardiogram measures. Whenever there is proper avoidance of coronary risk factors, it gives the expected early prevention.

Key words : Brachial artery, Electrocardigram,

Body weight, Males, Coronary

artery.

Arabic Title Page : العلاقة بين سريان الدم بالشريان العضدي

وقياسات رسم القلب الكهربائية بعد ضبط وزن الجسم في الذكور ذوي مخاطر الشريان التاجي

لعالية

Author : Salwa Mohamed Bahaa EI-Deen

EI-Sobkey.

Title : Effect of low level laser irradiation

on phrenic nerve palsy after open-

heart surgery.

Dept. : Physical Therapy Department for

Cardiopulmonary Disorder and

Geriatrics and its Surgery.

Supervisors : Nagwa Mohamed Hamed Badr,

Mohamed Magdy Gomaa Mostafa,

Ann Ali Abd-EI- Kader.

Degree : Doctoral.

Year : 2006.

Abstract :

Phrenic nerve injury is a well known complication after open-heart surgeries. Present study aimed to detect the incidence of this complication in an Egyptian hospital, study the possible risk factors responsible for this complication, recognize the consequence of this injury and found out if low power laser irradiation could be effective therapeutic measure enhancing PN recovery. Study was conducted in cardio-thoracic department, Kasr AL-Aini hospital, Faculty of medicine, Cairo University for 19 months .study group (75 patients) were subjected to pre and post-operative evaluative measures to diagnose PN injured patients. These evaluative measures included nerve conduction study, Ventilatory function tests and plain chest X-ray. Incidence of PNI after OHS was (45.3%). The intra-operative factors which proved to be guilty as risk factors responsible for PNI after OHS were cold cardioplegia, ice slush, lowering patient's core temperature less than 29.85°C and expand the extracorporeal circulation and cardiac ischemic duration. Injured group was divided into two subgroups; intervention group who received in addition to cardiac rehabilitation program, sessions of laser twice a week for 12 weeks and control group who received only the cardiac rehabilitation program. Both subgroups re-evaluated for three times by the previously mentioned evaluative measures. Results were very promising. Intervention group had better recovery in PN parameters, diaphragmatic position and MVV as a chosen Ventilatory function to represent the overall condition of the respiratory system.

Key words : Phrenic nerve, open heart

surgeries, low level laser

irradiation.

Title Page : على الشلل : Arabic Title Page

الارتجافى للعصب الحجابى بعد جراحة القلب

لمفتوح.

Physical Therapy Department for Obstetrics and Gynaecology and its Surgery

Author : Ali Abd El Monsif Thabet.

Title : Influence of abdominal muscles

exercises on the function of the pelvic floor muscles in mild stress

urinary incontinence.

Dept. : Physical Therapy Department for

Obstetrics and Gynaecology and its

Surgery.

Supervisors: Fahima Metwally Okeel, Mohamed

Mostafa Radowan, Salwa Mostafa

El Badry.

Degree : Doctoral.

Year : 2006.

Abstract :

This study was conducted to determine the effectiveness of abdominal muscle exercises on the function of pelvic floor muscles and treatment of mild stress urinary incontinence. Forty volunteers women, their age ranged from 30 to 40 years (mean 36.19 ± 3.08), participated in this study. They were divided randomly into two groups (A and B) equal in number; each group contained 20 women suffering from mild stress urinary incontinence. Group (A) had been treated with abdominal and pelvic floor exercises, while, group (B) had been treated with pelvic floor exercises only. The outcome measures included: vaginal pressure which was done before starting the treatment and at the end of 12th, 24th & 36th sessions of treatment for both groups. While, leak point pressure was done before starting the treatment and at the end of the 36th session. Results regarding vaginal pressure in group (A), showed that after the 24th session of the treatment was significantly (P<0.05) increased and after the end of 36th session of the treatment there was highly significant (P<0.0001) increased. While, in group (B), showed that immediately after the end of 36th session of treatment there was significantly (P<0.05) increased in the vaginal pressure. Regarding to leak point pressure in group (A) there was a highly significant (P<0.0001) increase. While, in group (B) there was a significant (P<0.05) increase in the leak point pressure. Comparing the results of both groups there was significant improvement (P<0.05) in vaginal pressure between group (A) and group (B) at the end of 36th session of the treatment and also, the results showed that the improvement in leak point pressure in group (A) was significantly (P<0.05) increased when compared to group (B) at the end of the treatment course. Accordingly it could be concluded that there was an influence of the abdominal muscles exercises in improving the efficiency of the pelvic floor muscles. Therefore, combined abdominal and pelvic floor muscles exercises considered as an effective method in treating cases with mild stress urinary incontinence.

Key words : Muscles Exercises, Urinary

Incontinence, Pelvic Floor.

Arabic Title Page: تأثير تمرينات عضلات البطن على وظيفة

عضلات الحوض الرافعة في حالات السلس

البولي الاجهادي البسيط.

Author : Dalia Mohamed Kamel Awad

Shewitta.

Title : Effect of different heel heights of

foot wear on gait parameters of

normal pregnant women.

Dept. : Physical Therapy Department for

Obstetrics and Gynaecology and its

Surgery.

Supervisors : Fahima Metwally Okeel, Salwa

Mostafa El Badry, Adel Farouk El

Bigawy.

Degree : Doctoral.

Year : 2006.

Abstract :

This study was conducted to determine the effect of different heel heights of foot wear on gait parameters of normal pregnant women. Fifty volunteer primigravidae women evaluated at their 24th week gestation in motion analysis laboratory to measure anterior pelvic tilting, pelvic rotation and planter flexor moment while wearing foot wear with (flat, 1.5 cms, 3 cms & 4.5 cms) different heel heights and this procedure was repeated at 28th, 32nd and 36th week gestation. Results showed a statistically significant decrease in anterior pelvic tilting and pelvic rotation while subjects were wearing medium heel heights (1.5 & 3 cms) of foot wear at their 24th, 28th, 32nd and 36th week gestation .While, there was a statistically significant increase in anterior pelvic tilting and pelvic rotation with wearing 4.5 cms heel height throughout all assessments. In planter flexor moment there was statistically significant decrease while wearing foot wear with 1.5 cms & 3 cms heel heights at 28th, 32nd & 36th week gestation. While, there was a non significant difference between the flat and 4.5 cms heel height throughout all measurements. So, the results suggesting that medium heel heights (1.5 & 3 cms) of foot wear are the most appropriate to be worn during pregnancy as may have minimal impact on pelvis, back, and feet.

Key words : Pregnancy, postural changes, heel

heights, foot wear, gait, pelvis,

planter flexor moment.

Arabic Title Page : تأثير الارتفاعات المختلفة لكعب الحذاء علي علي المختلفة الكعب

قياسات المشى للسيدات الحوامل.

Physical Therapy
Department for
musculoskeletal
disorder and its
Surgery

Author : Hatem Hassan El-Sayed Rifai.

Title : Effect of proprioception training on

functional instability of the ankle using a modified balance board.

Dept. : Physical Therapy Department for

musculoskeletal disorder and its

Surgery.

Supervisors : Ahmed Hassan Hussein, Bassem G.

El-Nahass, Salwa Fadle Abd El-

Maggeed.

Degree : Doctoral.

Year : 2006.

Abstract :

Background, Functional instability has described as recurrent ankle sprains and as the subjective feeling of ankle giving way. Purposes, to investigate the effectiveness of providing visual and auditory feedback to the traditional wobble board in improving the proprioception and to correlate between the modified balance board with Biodex stability system in evaluation of proprioception in instable ankle. Materials and Methods, Forty males with unilateral functionally instable ankle were randomly assigned into two experimental groups. Both groups evaluated pre and post training with biodex stability system. Results, both groups revealed a highly significant difference between them, with lowering of stability index. Conclusion this study proved that the addition of biofeedback to the wobble board can increase the control of postural sway.

Key words : Sprain ankle, Prorioception

training, Balance board training,

Biofeedback.

Title Page: المستقبلات الحسية العميقة : Arabic Title Page

على الثبات الوظيفي للكاحل بالستخدام لوح

الاتزان المعدل.

Author : Mohamed Mohamed Ibrahim.

Title : The role of proprioceptive training

in treatment of rotator cuff

impingement syndrome.

Dept. : Physical Therapy Department for

musculoskeletal disorder and its

Surgery.

Supervisors : Ahmed Hassan Hussein, Abd EI-

Aziz Mohamed EI-Sengergy, Enas

Fawzy.

Degree : Doctoral.

Year : 2006.

Abstract :

The purpose of this study was to clarify the importance of proprioceptive rehabilitation program in management of rotator cuff . impingement syndrome. Thirty patients (25 males and 5 females) . suffering from rotator cuff impingement syndrome participated in this 'study and were randomly assigned into two groups. Group (A) received . just a traditional program (ultrasonic phonophoresis, strengthening and stretching exercises) and group (B) received a traditional program plus proprioceptive rehabilitation program. Each program took 4 weeks (3 sessions/ week). All patients were assessed before and after treatment. Shoulder proprioception was recorded by using angular reproduction test ' (AR) test. Shoulder pain was recorded by using visual analog sC21e I (VAS). Shoulder function was recorded by using American Shoulder and Elbow Surgeons (ASES) rating scale. The results of this study showed significant differences between both groups in shoulder function and proprioception. It was found that group (B) had higher functional Score and proprioceptive ability than group (A). No significant difference between both groups in shoulder pain.

Key words : Rotator cuff impingement

syndrome, Proprioceptive rehabilitation, Shoulder

proprioception, Pain, Function.

دور تدريبات المستقبلات الحسية العميقة في : Arabic Title Page

علاج متلازمة انحشار العضلات المدورة لمفصل

الكتف.

Author : Mowafak Fawzy Said Hussein.

Title : The *mportance of Q-angle

measurement in the detection of lateral patellofemoral malalignment in obese females during weight

bearing.

Dept. : Physical Therapy Department for

musculoskeletal disorder and its

Surgery.

Supervisors : Bassem G. El Nahass, Alla-Eldin

Balbaa.

Degree : Doctoral.

Year : 2006.

Abstract :

Patellar malt racking is one of the most patellofemoral joint disorder. Qangle is considered as one of the measurement tools that evaluate patellar malt racking. An increase of Q-angle is associated with patellar malt racking. The purpose of this study was to establish the relationship between the Q-angle and thigh girth measurements of obese females during weight bearing and to determine the possibility of using Q-angle as an early predictor of patellar malt racking when radiological examination shows normal findings. Fifty obese females selected according to BMI participated in the study. Ages range from 16-40 years. Q-angle was measured from weight bearing position using gait analysis system. CA and SA were measured by using Merchant technique with special stand. It was found that there was strong correlation between Qangle values and thigh girth measurements. An increase of thigh girth was accompanied with increase of Q-angle value. On the other hand, it was found that the CA and SA were within the normal values. These findings suggest that Q-angle can be used as early predictor to diagnose and follow up patellar malt racking from weight bearing position in obese females when radiological findings are normal.

Key words : patellofemoral joint, malalignment,

Q-angle, obese females, gait analysis system, weight bearing.

أهمية وزاوية العضلة رباعية الرؤوس في : Arabic Title Page

إكتشاف عدم الإستقامة الوحشية لمفصل الرضفة مع أسفل عظمة الفخذ في الإناث البدينات أثناء تحميل الثقل.

Author : Sahar Mahmoud Mahmoud

Hassan.

Title : Three-dimensional trunk motion

analysis in relation to categories of

low back dysfunction.

Dept. : Physical Therapy Department for

musculoskeletal disorder and its

Surgery.

Supervisors : Ahmad Hassan Hussein, Enas

Fawzy Youssef.

Degree : Doctoral.

Year : 2006.

Abstract :

Purpose: This study was conducted to analyze specific features of threedimensional analysis of trunk motions in relation to categories of mechanical low back dysfunction (MLBD) patients. Design: It consisted of two groups: control group was 25 healthy subjects (GA) and 60 patients with low back (GB). The participants were of both genders and their age ranged between 30-50 years old. The patients of (GB) were assigned to three equal categories: GB I; (central pain), GB II; (unilateral radiating pain), GB III; (bilateral radiating pain). The analysis conducted by Qualysis Medical AB System for both groups. The pain scores and disability scales were gathered to MLBD patients group. Results: The findings revealed significant differences between GA and GB categories in trunk flexion and lateral bending of GB I, while the differences between GA and GB of rotation movement were nonsignificant. There were no significant differences between MLBD categories in 3D trunk analysis and pain, while the functional activities revealed significant differences. The relation between pain scores and disability scales with trunk motions were ranged between weak and mild correlation. Conclusion: The 3D trunk motion can discriminate between normal and GB I patients. Otherwise, patients categories did not revealed obvious variation between each other. Recommendation: it is recommended to utilize other categories and scales to differentiate between LBD patients objectively.

Key words : low back dysfunction, Three-

dimensional analysis, Categories.

معليل ثلاثي الأبعاد لحركة الجزع بالنسبة إلى : Arabic Title Page

فئات الخلل الوظيفي لأسفل الظهر.

Physical Therapy Department of Surgery

Author : Amal Mohamed Abd El Baky.

Title : Efficacy of aerobic and deep

breathing exercises on pulmonary function and functional capacity in

burned male patients.

Dept. : Physical Therapy Department for

Surgery.

Supervisors : Wafaa H. Borhan, Zakaria Mowafy

Emam Mowafy, Salah Abdel

Ghani.

Degree : Doctoral.

Year : 2006.

Abstract:

The purpose of the present study was to investigate the efficacy of aerobic and deep breathing exercises on pulmonary function and functional capacity in burned male patients. Forty-five burned patients participated in this study after one month from their discharge from hospital. They had 2nd degree burn of total body surface area ranged from 20-40% combined with inhalation injury. They were divided randomly into three equal groups. *Group (A)*: patients received an aerobic exercise with deep breathing exercise, group (B): patients received only an aerobic exercise, and group (C): patients received the routine chest physical therapy. Pulmonary function (forced vital capacity "FVC", forced expiratory volume after one second "FEV₁", maximum voluntary ventilation "MVV"), maximum oxygen consumption "VO_{2max}", treadmill time, and dyspnea were measured pre-treatment and after 8 weeks posttreatment. The patients treated 3 times/week for 8 weeks for aerobic exercise and 2 times/day for 5 days /week for 8 weeks for the deep breathing exercise using incentive spirometer. The results of this study revealed that, there were significant improvement in all groups but the percentage of improvement in group "A" was more than "B" and "C" respectively. Conclusion: Combination of aerobic exercise and deep breathing exercise produces more improvement in the burned patient's parameters than aerobic exercise alone.

Key words : Burn, pulmonary function-dyspnea, functional capacity. incentive

functional capacity, incentiv spirometer, inhalation injury.

فاعلية التمرينات الهوائية وتمرينات التنفس : Arabic Title Page

العميق على الوظيفة الرئوية والسعة الوظيفية

لمرضى الحروق من الرجال.

Author : Sayed Abdel Moneim Tantawy

Mosa.

Title : Effect of anal electrical stimulation

on pressure-time curve of the pelvic floor muscles in post traumatic

faecal incontinence.

Dept. : Physical Therapy Department for

Surgery.

Supervisors : Wafaa Hussein Borhan, Gamal

Mostafa Said, Zakaria Mowafy

Emam Mowafy.

Degree : Doctoral.

Year : 2006.

Abstract:

This study was done to evaluate the effect of anal electrical stimulation on pressure time curve in faecal incontinence. Forty volunteer patients (20 male and 20 female) were assigned randomly into 2 groups. group (1) received pelvic floor exercises 3 times per week for four weeks, while group (2) received anal faradic stimulation and pelvic floor exercises 3 times per week for four weeks. The assessment was done pre and post treatment application for both groups by peritron equipment to measure peak and average of anal pressure and work of the pelvic floor muscles. The results showed a statistically significant increase in the previous parameters in both groups. But when comparing between both groups, the results showed that a significant increase of the parameter in group (2) than group (1). We concluded that electrical stimulation is a safe, simple and successful method in treating faecal incontinence and gives excellent results when augmented to pelvic floor exercises.

Key words : Anal Electrical stimulation, Pelvic

Floor Muscles, Traumatic Faecal

Incontinence.

تأثير التنبيله الكهربي الشرجي علي منحنى : Arabic Title Page

الضغط الزمني لعضلات أرضية الحوض في ما

بعد الاصابة بالسلس البرازي.

Physical Therapy
Department for
Neuromuscular
and Neurosurgical
Disorder and its
Surgery

Author : Nevein Mohammed Mohammed

Gharib.

Title : Electromyographic study of

selected muscles controlling pelvic stability in stroke patients during

gait.

Dept. : Physical Therapy Department for

Neuromuscular and Neurosurgical

Disorder and its Surgery.

Supervisors : Naiema Hamdy Hassan, Hussein

Ahmad Shaker, Magdy Ahmad

Arafa.

Degree : Doctoral.

Year : 2006.

Abstract:

The purpose of this study is to evaluate pelvic stability during gait after stroke and its effect on the patient's gait and balance. Thirty stroke patients and ten normal subjects participated in this study. The patients were divided into two equal groups according to the degree of spasticity of the affected lower limbs. All subjects were assessed for; the root mean square of selected muscles controlling the pelvis, pelvic range of motion during gait, some selected gait parameters, and standing balance. The results of the present study showed significant differences in the electromyographic findings among the normal subjects, the patients with mild spasticity and those with moderate spasticity. There was significant decrease in pelvic forward rotation and posterior tilting, as well as unequal obliquity of the pelvis which were more marked in moderately spastic patients. I 'here was impairment in all selected gait and standing balance parameters. It was concluded that stroke patients suffer from instability around the pelvis due to muscular imbalance that results in impairment in standing balance and gait parameters.

Key words : Electromyography, pelvis, balance,

gait, stroke.

دراسة النشاط الكهربي لعضلات مختارة تتحكم : Arabic Title Page

في ثبات الحوض أثناء المشي في مرضى السكتة

الدماغية

Waleed Talat Mansour. **Author**

: Influence of partial body weight Title

suspension on gait efficiency for

stroke patients.

: Physical Therapy Department for Dept.

Neuromuscular and Neurosurgical

Disorder and its Surgery.

Supervisors : Nawal Abd El Raof Abo Shady,

Salah Abd El Monem Sawan,

Osama Mohamed Rashad.

Degree : Doctoral.

Year 2006.

Abstract

The purpose of the study is to evaluate whether treadmill training during partial body weight suspension can improve gait parameters in stroke patients, and to determine the optimum percentage of suspension for gait in those patients. Forty-five male hemiparetic stroke patients, aged from 42 to 64 years. They were randomly assigned into three equal groups (GI, GII and GIII). GI is a control group and was treated over the treadmill only without any suspension, GII is an study group and was treated by 30% body weight suspension (BWS), GIII is also an study group and was treated by 45% BWS. All subjects received rhythmical gait training for 30 minutes (five minutes training& five minutes rest respectively), this means 15 minutes training and 15 minutes rest, three days per week every other day for six weeks on a motor -driven treadmill with fixed speed control, equals 2.25m/sec. Vital signs (Blood pressure, tem.perature, pulse rate and respiratory rate) for all patients were measured before, during and after the treatment sessions. Patients were assessed by functional ambulation category, motion analysis system and force plateform before and after the last treatment session. Statistically, the results showed that significant improvement occurred in all three groups with the best results for GIII, regarding the clinical, kinematics and kinetics parameters. According to the statistical analysis, BWS with 45% is considered more effective in rehabilitating hemiparetic stroke patients.

Key words : Ambulation, Gait analysis, stroke, Treadmill, **Body** Weight

Suspension.

التعليق الجزئي للجسم وتأثيره على كفاءة المشي في مرضى السكتة الدماغية. **Arabic Title Page :**

Physical Therapy
Department for
Growth and
Developmental
Disorder in Children
and its Surgery

Author : Fatma Moustafa Abd El-Aty.

Title : Effect of cognitive rehabilitation on

hand functions in spastic

hemiplegic children.

Dept. : Physical Therapy Department for

Growth and Developmental Disorder in Children and its

Surgery.

Supervisors : Kamal El-Sayed Shokry, Hoda Abd

El-Azim EL-Talawy, Faten Hasan

Abd El-Azim.

Degree : Doctoral.

Year : 2006.

Abstract :

This study was carried out on fifteen spastic hemiplegic children randomly divided into two equal groups: A & B. Cognitive abilities of these children as well as their hand functions were evaluated prior and after specified six months-rehabilitation program. The objectives were to study the effect of improvement of cognitive abilities in these children on their hand functions as well as the influence of hand functions training of these children on the development of their cognitive abilities. Group "A" was subjected to hand functions rehabilitation program using tasks selected from PDMS-2, while group "B" received hand functions rehabilitation program in combination with attention and concentration rehabilitation program using the RehaCom system. Results showed better improvements of motor and cognitive activities in group B than A.

Key words : Hemiplegic children, Cognitive abilities, Hand functions,

Rehabilitation, RehaCom system,

PDMS-2.

تأثير التأهيل المعرفي على وظائف اليد في : Arabic Title Page

الأطفال المصابين بالفالج الشقى التشنجي.

Author : Gehan Mosad Abd El-Maksoud.

Title : Hand rehabilitation with tendon

transfer surgery and with botulinum toxin injection in hemiplegic children: Similarities

and differences.

Dept. : Physical Therapy Department for

Growth and Developmental Disorder in Children and its

Surgery.

Supervisors : Kamal El-Sayed Shoukry, Hoda

Abd El-Aziem El-Talawy, Mostafa

Hassan Aboulftoh Elsherbini.

Degree : Doctoral.

Year : 2006.

Abstract :

The purpose of this study is to investigate the effect of two treatment strategies: hand rehabilitation including tendon transfer surgery and hand rehabilitation including botulinum toxin type A (BTX-A) injection in hemiplegic children. This study is also conducted to clarify the similarities and differences between two treatment strategies. Two groups of hemiplegic children -ten child in each group- participated in this study. The first group of children (group A) aged from eight to eleven years old and were treated by hand rehabilitation program included tendon transfer surgery. The second group of children (group B) aged from four to six and half years old and were treated by hand rehabilitation program including BTX-A injection. Evaluation of wrist extension, forearm supination, hand grip strength and fine motor skills were studied in two patient groups before starting the treatment after three months and after six months of treatment. The results of the present study shows a highly significant improvement in all measuring parameters for the two groups except for a highly significant reduction in hand grip strength in the first group which was noticed after three months of treatment. In addition, considerable differences between the two groups were demonstrated in relation to age, pretreatment status of children and the level of improvement at the end of a rehabilitation program. In conclusion, the results of this study confirmed that a multidisciplinary approach is essential in the management of CP children.

Key words : **Rehabilitation**, **Tendon** Transfer

Surgery, Botulinum Toxin,

Hemiplegia.

تأهيل اليد مع عمليات نقل الوتر ومع حقن : Arabic Title Page

البوتكس للأطفّ ال المصابين بالفالج: التشابة

والاختلاف.

Department of Basic Science

Author : Alyaa Attiah Mohamed Diaab.

Title : Influence of extension traction on

lumbar configuration and muscle

activity.

Dept. : Department of Basic Science.

Supervisors : Fatma sedik Amin, Maher Ahmad

El-Keblawy, Mona Nada.

Degree : Doctoral.

Year : 2007.

Abstract :

Background: there has been a surge of interest in the biomedical literature about the normal shape and magnitude of the lumbar lordosis. The purpose: this study was conducted to investigate the influence of extension traction on lumbar configuration and muscle activity in cases of hypolordotic lumbar spine. Subjects: Forty subjects with hypolordotic lumbar spine were participated in this study. Their age ranged from 18 to 24 years. Subjects were divides into two groups (study and control), each group included 20 subjects. The study group received extension traction. Method: the lumbar lordotic angle, thoracic kyphotic angle and the amplitude of lumbar and thoracic erector spinae muscles MUAPs were measured before and after the extension traction which applied 3/week for ten week to serve as objective indicator of therapy effectiveness. Results: the lumbar extension traction produced significant increase in lumbar lordotic angle, thoracic kyphotic angle (51.1%) (P < 0.0001)& (36.99%) (P < 0.0001) respectively. And in the amplitude of lumbar and thoracic erector spinae muscle MUAPs (46.4%) (P<0.0001)& (28.4%) (P<0.0001) respectively. For the control group there was no statistically significant change in the lumbar lordotic angle, thoracic kyphotic angle and in the amplitude of lumbar and thoracic erector spinae muscle MUAPs (1.24%) (P= 0.0966), (1.79) (0.1032), (5.4%) (P= 0.0583) and (3.17%) (P=0.3501) respectively. For the study group, there was a positive correlation between the amplitude of lumbar and thoracic erector spinae muscle MUAPs and lumbar lordotic angle r = +0.84 (P< 0.0001) and r = + 0.6 (P< 0.0043) respectively, and there was a positive correlation between the lumbar lordotic angle and thoracic kyphotic angle r=+0.7 (P<0.0001). Conclusion: it was concluded that lumbar extension traction is safe and efficient modality to improve the sagittal lumbar curve and muscle activity.

Key words : Extension traction, Muscle activity,

Lumbar lordosis.

Title Page : تاثير الشد من وضع الانبساط على هيئة تكوين

الفقرات القطنية و النشاط العضلي.

Author : Azza Mohamed Atya.

Title : Efficacy of magnetic field and

proprioception training in the treatment of knee osteoarthritis.

Dept. : Department of Basic Science.

Supervisors : Mohsen M. El-Sayyad, Maher A.

El-Kabalawy.

Degree : Doctoral. Year : 2007.

Abstract :

Background Osteoarthritis is a significant public health problem that frequently restricts patients activity with a major impact on the knee joint stability and function. Magnetic field and Proprioception training are recently used treatment options for knee osteoarthritis. The purpose of this study was to investigate the efficacy of Magnetic field and Proprioception training in the treatment of knee Osteoarthritis. Subjects. patients with knee osteoarthritis(13males, (47.78±8.87) years were randomly assigned into two groups: group (A) received Magnetic field & group (B) received Magnetic field and proprioception training. the program was applied 3 times/week for eight weeks. Results. there was a significant improvement within the two groups in pain, range of motion, functional activities and proprioception acuity with the best results in group (B). Pain score was decreased from (6.95 ± 0.94) to (5.85 ± 0.94) in group (B) and from (7.45 ± 0.99) to (6.85 ± 1.08) in group (A). The ROM was increase from (90.85 ± 8.99) to (93.93 ± 0.9) in group (B) and from (99.45 ± 12.15) to (100.8 ± 13.01) in group (A). with greater improvement in functional activity and proprioception acuity in group(B)than group(A) Conclusion. The addition of proprioception training to Magnetic field in treating knee osteoarthritis produces better overall treatment outcomes than Magnetic field alone in term of pain reduction, improvement of the knee joint range of joint motion, functional activities and proprioception acuity.

Key words : Osteoarthritis, Magnetic field,

Proprioception.

فاعلية المجال المغناطيس و التدريب للمستقبلات : Arabic Title Page

الحسية العميقة في علاج خشونة الركبة.

Author : Nabil Mahmoud Ismail.

Title : Variability of cervical range of

motion measurements in normal

subjects.

Dept. : Department of Basic Science.

Supervisors : Mohsen El-Sayyad, Neveen Abd El-

Latife.

Degree : Doctoral. Year : 2007.

Abstract :

The purposes of this study was to examine the intra-examiner and inter-examiner reproducibility of range of motion measurements, to obtain norm-referencing values of active ROM of cervical spine of Egyptian population in different age groups measured by CROM instrument, and to study the effect of age and gender on cervical ROM values. Three hundred and thirty normal subjects participated in this study. Thirty normal subjects participated in testing the inter-rater and intra-rater reliability of measurements. The remaining three hundred normal subjects were assigned into five equal groups according their ages The study revealed there was good to high reliability for all motions of cervical spine except left rotation, normal range of motion of cervical spine in healthy Egyptian population are different from those reported previously in other population, males have a greater cervical range of motion than females and normal cervical range of motion decrease with age. The level of significance for all tests was set as $(P \le 0.05)$.

Key words : AROM, CROM, Anthropometry,

Ergonomics, Cervical spine, Age,

Gender.

Arabic Title Page : الاختلافات في قياس مدى الحركة في الفقرات

العنقية لدى الاشخاص الاصحاء.

Department of Biomechanics

Author : Osama Ragaa Abdel-Raouf.

Title : Adaptive gait characteristics of

individuals with chronic ankle instability during barefoot and shod

walking.

Dept. : Department of Biomechanics.

Supervisors : Mohamed Fouad Ibrahim Khalil,

Salam Mohamed El-Hafez.

Degree : Doctoral. Year : 2007.

Abstract :

Despite the presence of much research, the reasons behind the development of chronic ankle instability in individuals post ankle inversion sprain are not clear. Chronic ankle instability has previously been investigated dynamically using 3D motion analysis during walking in very limited research work. In this study, gait analysis was carried out on fifty subjects (25 chronic ankle instability, and 25 age, gender, activity, and gait velocity matched controls) during barefoot and shod walking. Kinematic and kinetic pattern differences using the 3D motion analysis system combined with a force plate were established at 90%, zero%, 10% and 30% of gait cycle in the sagittal and frontal planes. The results of the study showed that during barefoot walking, chronic ankle instability subjects were significantly (P< 0.05) more inverted in the frontal plane compared with controls in the entire studied parts of gait cycle. Also, subtler joint motions appeared to be controlled by an evertors moment compared with an invertors moment in the controls. In addition to significant increase of ankle joint plantar flexion and inversion (P < 0.05), proximal adaptations in form of significant increase in ipsilateral hip joint adduction and lateral trunk lean towards the affected side were found during shod walking. These proximal adaptations are significantly correlated to ankle adaptation in the same plane. These changes should be considered during establishment of rehabilitation programs for persons with chronic ankle instability.

Key words : **Kinematics, Kinetics, Chronic ankle**

instability, Barefoot walking, Shod

walking, 3D motion analysis.

الخصائص التكيفية للمشي في الأشخاص : Arabic Title Page

المصابين بعدم الاتزان المزمن في الكاحل أثناء

المشي حافي الفدمين وبالحذاء.

Physical Therapy
Department for
Cardiopulmonary
Disorder and
Geriatrics and its
Surgery

Author : Abeer Ahmed Abdel-Hamed.

Title : Effect of inspiratory muscles

training on functional capacity in patients with chronic heart failure.

Dept. : Physical Therapy Department for

Cardiopulmonary Disorder and

Geriatrics and its Surgery.

Supervisors : Azza Abd EI-Aziz Abd EI-Hady,

Zeinab Mohammed Helmy, Hamdy

Soliman Mahmoud.

Degree : Doctoral.

Year : 2007.

Abstract:

The aim of this study was to investigate the effect of inspiratory muscles training on parameters of functional capacity (V02max and AT) in CHF. and to clarify other possible effects including; sympathetic over activity and ventilatory function tests and gas exchanges during exercise. Forty male patients with chronic heart failure, Their ages ranges from 50-65 years old with EF ≤40% in stable condition. They were randomly divided into two equal groups: IMT, and control group. IMT group participated in inspiratoray muscle training program, three times a week for three months and control group received medical treatment only. The results showed a significant increase in the of V02max, AT, and maximum oxygen pulse with significant reduction in VE the IMT group, over the control. While the parameters, peak work load, and maximum heart rate, were not significantly altered in both groups. Parameters of HRV, showed a significant increase in HF in the IMT. group, with significant reduction of LF/HF where as their was no significant changes in LF with. Significant increase in the inspiratory muscle strength (MIP) and, rating of the perceived exertion (Borg scale) ,with a significant reduction in the resting cardiovascular parameters.

Key words : Chronic heart failure, Inspiratory

muscle training, Functional capacity, Heart rate variability.

معضلات الشهيق علنى القدرة : Arabic Title Page

الوظيفية لمرضى فشل عضلة القلب المزمن.

Author : Omar Farouk Farhat Helal.

Title : Comparison between effects of

Strengthening exercises to calf muscle with or without elastic compression stocking in the

treatment of varicose vein.

Dept. : Physical Therapy Department for

Cardiopulmonary Disorder and

Geriatrics and its Surgery.

Supervisors : Aziz G. Aziz, Eman Rushdy, Farag

Abed El-Moneim Aly.

Degree : Doctoral.

Year : 2007.

Abstract :

Background and purpose: This study aimed to differentiate between the effects of two types of calf muscle exercises on the improvement of varicose vein and evaluating the effect of the elastic stocking with each type of exercise. Subjects: Forty-eight patients with primary varicose vein of the lower limb (fourteen male and thirty four female) with their age ranging from thirty to fifty years. Methods: The patients were randomly divided into four groups; Group (1) included twelve patients who performed pedal ergometer exercise. Group (2) included twelve patients who performed tip-toe strengthening exercise. Group (3) included twelve patients who performed pedal ergometer exercise with elastic compression stocking group. Group (4) included twelve patients who performed tip-toe strengthening exercise with elastic compression stocking. Results: The results revealed that both type of exercise improve calf muscle isotonic strength (foot ergometer more than tip-toe) and great saphenous vein diameter, but they have no effect on calf muscle circumference. The elastic stocking have no effects when used with each of the exercise.

Key words : Varicose vein, Great saphenous

vein, strengthening exercise, calf

muscle, compression stocking.

مقارنة بين تأثيرات تمرينات تقويه لعضلة بطن : Arabic Title Page

الساق مع الجورب الضاغط المرن أو بدونه في

علاج دو آلى الساقين.

Author : Sherin Hassan Mohamed Mehani. Title : Role of aerobic training I

Role of aerobic training In symptomatic idiopathic dilated

cardiomyopathy patients.

Dept. : Physical Therapy Department for

Cardiopulmonary Disorder and

Geriatrics and its Surgery.

Supervisors : Nagwa Mohamed Hamed Badr,

Zeinab Mohamed Helmy, Hamdy

Soliman Mahmoud.

Degree : Doctoral. Year : 2007.

Abstract :

Background and purpose: Heart failure is a growing health problem that will continue to worsen as the aged population increase. In chronic heart failure patients (CHF), exercise training have proven to be safe and effective. The purpose of the study was to investigate whether aerobic training could improve functional capacity and left ventricular systolic and diastolic functions during rest using echocardiography in idiopathic dilated cardiomyopathy patients and the underlying mechanisms involved in this improvement. Methods and results: The study was conducted to investigate whether aerobic training could improve functional capacity and left ventricular systolic and diastolic functions in idiopathic dilated cardiomyopathy patients. Thrity patients were divided equally into training and control groups. The left ventricular functions and exercise capacity were improved in the training group and there was a statistical significant difference in mean relative changes % between the two groups. Conclusion: The study concluded that exercise training can be seen as an established adjunct to pharmacotherapy in IDC patients and by treating the periphery with exercise programs, there are many central adaptations as well.

Key words : Aerobic training, symptoms,

idiopathic dilated cardiomyopathy.

دور التمرينات الهوائية في مرضى اعتلال عضلة : Arabic Title Page

القلب التمددي الأولى.

Physical Therapy
Department for
musculoskeletal
disorder and its
Surgery

Author : Omnia AI-Sayed Abd AI-Fattah

AI-Eraqy.

Title : Hip kinetic and kinematic analysis

during unaided and aided gait after

total hip arthroplasty.

Dept. : Physical Therapy Department for

musculoskeletal disorder and its

Surgery.

Supervisors : Ahmed Hassan Hussien, Enas

Fawzy Youssef, Fouad Sadek

Zamel.

Degree : Doctoral. Year : 2007.

Abstract :

This study was established to recognize three dimensional impairment of hip and pelvis occurs during the unaided and aided gait of total hip arthroplasty patients. This was done by three dimensions kinematics (hip and pelvis angular motion); and kinetics (force plate form, and Gluteus Medius activity) gait analysis. The results gained form 20 total hip arthroplasty patients were compared with that of 20 healthy matched volunteers. The patients walked with reduced stride length and frequency, resulting in reduced speed and increased stance ratio. Patients walked with decreased hip flexion, compensated by increased anterior pelvic tilt. The patients walked with delayed hip extension, with decreased extension moment. In addition, exaggerated lateral rotation of the affected hip, compensated by exaggerated internal rotation of the contralateral pelvis was detected. Increased hip adduction with massive pelvic drop was compensated with ipsilateral trunk lean towards the operated side. Using contralateral cane improved hip and pelvis impairments into three dimensions, but to a level still lower than normal.

Key words : Gait analysis, hip arthroplasty,

kinetics, kinematics.

Arabic Title Page : تحليل الحركة والقوة المحركة لمفصل الفخذ اثناء

المشي باستخدام الوسائل المساعدة وبدونها بعد

الاستبدال الكلي للمقصل.

Physical Therapy Department of Surgery

Author : Anwer Abd El-Gayed Ebeed.

Title : Effect of isokinetic training on

muscle torque and dynamic balance

in burned patients.

Dept. : Physical Therapy Department for

Surgery.

Supervisors : Wafaa Hussein Borhan, Ahmed

Mohamed Salah-Eldin Elbadwy, Zakaria Mowafy Emam Mowafy.

Degree : Doctoral.

Year : 2007.

Abstract :

Purpose:The purpose of this study was to determine the effect of burn injury on muscle torque and dynamic balance after second degree burns, and also to determine the effect of isokinetic protocol on trunk muscle torque and dynamic balance. Subject: Forty male patients were participated in this study, they were selected from burn unit at Om Elmasryeen hospital, they had second degree thermal burn injury affecting trunk area with total body surface area ranges from 35 to 40 % and their age ranges from 25 to 35 years. Procedures: During hospitalization period a sample of urine was taken from all patients and investigated to detect the level of creatinine on urine which reflect the catabolic effect of burn on skeletal muscles. After healing of wound the torque of flexors and extensors of the trunk was measured by using biodex system 3, also dynamic balance was measured by using biodex balance system. After that the experimental group patients start a special protocol of rehabilitation for six weeks, the control group start the traditional physical therapy program then the torque of both flexors and extensors muscles were measured by using biodex system 3 and dynamic balance was measured for all patients by using biodex balance system.Results: The results showed statistical significance difference between the creatinine level in urine and the normal creatinine level, which determine the catabolic effect of burn on skeletal muscles. Also, it showed statistical significance difference between the flexor and extensor torque, stability index and dynamic balance of stability of the experimental group more than control group. Conclusion: These results indicate that thermal burn injury affect trunk muscle torque and dynamic balance also biodex isokinetic protocol had a significant effect on development of muscle torque and is considered as a gold therapeutic tool in the management of skeletal muscle after burn injury.

Key words : Burn, Dynamic balance, Isokinetic,

Muscle torque, Physical therapy,

Trunk flexors and extensors.

Arabic Title Page : تأثير التدريب المتساوى على العزم العضلى

والإتزان الديناميكي في مرضى الحروق.

Author : Mohamed Taher Ahmed Omar.

Title : Efficacy of transcutaneous

electrical nerve stimulation and selective exercises program after groin hernia repair on male

patients.

Dept. : Physical Therapy Department for

Surgery.

Supervisors : Wafaa Hussein Borhan, Zakaria

Mowafy Emam Mowafy, Kadria

Ebrahim Abd –El Fatah.

Degree : Doctoral. Year : 2007.

Abstract :

Purposes: this study was designed to determine first; whether the inguinal hernia and its repair had effect on quality of life, pain, hip flexor muscles strength, and EMG activities of abdominal muscles; second whether the use of TENS and selective exercises program induce significant effect on postoperative pain, quality of life, hip flexor muscle strength and EMG activities of abdominal muscles. Methods: Forty fives male patients were diagnosed with primary inguinal hernia, (direct and indirect), their age ranged from 25to45 years(34.2±6.35years) were selected form material teaching hospital included in this study and randomly assigned into two experimental and one control groups. Group A: (TENS+ Exercises); received conventional TENS in addition to selective exercises therapy. Group B: (Placebo TENS +Exercises): received selective exercises program and placebo conventional TENS. Group C (Control group): who served as control group. The data regarding to patients' age, body mass index, types of hernias and its site, types of anesthesia, have been collected at entry of the study. Pain was assessed using serum cortisol level (SCL), while quality of life assessed through complete SF-36 questionnaires .The hip muscle strength and abdominal muscle activities (rectus abdominal, external and internal obloquies muscles), were evaluated using musculatures devices and electromyography respectively. The patients were evaluated at preoperative, seven days postoperative and post-rehabilitation. Results; The results demonstrated non significant differences in age, body mass index, types and sites of hernia, types of anesthesia and occupation among three groups. There were non statistical significance differences (P>0.05) in the SF-36 questionnaires, (SCL), hip muscle strength, and EMG activities of abdominal muscles; among three groups at preoperative and postoperative respectively. While there were significance differences(P<0.05) in the SF-36 questionnaires, (SCL), hip muscle strength, and EMG activities of abdominal muscles , among three groups at post-rehabilitation in favoring to group A, then group B and C respectively. Conclusion; the findings of this study showed that the use of (TENS and selective exercises) are better than (placebo TENS and selective exercises), in the short – term effect for reduction of (SCL), improvement of quality of life, improvement of hip flexor muscles strength and EMG activities of abdominal muscles.

Key words : Groin hernia, EMG, Pain, Cortisol,

TENS, Rehabilitation.

فاعلية التنبية الكهربي العصبي عبر الجلد : Arabic Title Page

وبرنامج مختار من التمرينات بعد عمليات اصلاح الفتق الأربى على المرضى الرجال.

Physical Therapy
Department for
Neuromuscular and
Neurosurgical
Disorder and its
Surgery

Author : Moussa Abd El-Fattah Youssif

Sharaf.

: Clinical, electrophysiological and **Title**

kinesiological study of foot-knee-hip

interaction in stroke patients.

: Physical Therapy Department for Dept.

Neuromuscular and Neurosurgical

Disorder and its Surgery.

: Nahed Ahmad Salem, **Supervisors** Usama

Mohamed Rashad.

Degree : Doctoral.

Year 2007.

Abstract

The aim of this study was to evaluate the foot-knee-hip interaction during sit-to-stand (STS) movement and gait, balance and clinical functional skills of the lower limbs in stroke patients. Thirty patients and ten normal subjects participated in this study. Patients were divided into two equal subgroups. All subjects were assessed for; clinical functinal skills of the lower limbs, standing balance and muscular activities of selected muscles controlling the lower limb joints & range of motion (ROM) of these joints during STS movement and gait. The results showed significant differences in the EMG findings among the normal subjects, mild and moderate spastic patients during STS movement and gait. There was significant differences in hip, knee and ankle ROM during STS (during all phases except phase II of knee) and gait (during both stance [except knee extension] and swing [except ankle dorsiflexion] phases). There was an impairment in clinical functional skills of the lower limbs and standing balance in stroke patients. It was concluded that stroke patients suffer from muscular imbalance that affects activities of daily living including STS movement, balance and gait.

Kev words : Stroke, electromyography, **3-D**

motion analysis, foot, knee, hip

interaction, STS, gait, balance.

دراسة إكلينيكية كهروفسيولوجية حركية للتفاعل **Arabic Title Page**

بين القدم الركبة الفخذ في مرضى السكتة الدماغية.

: Yasser Ibrahim Ali Seada. **Author**

Title : The use of electromagnetic therapy

in the treatment of parkinsonian

patients.

: Physical Therapy Department for Dept.

Neuromuscular and Neurosurgical

Disorder and its Surgery.

: Nahed Ahmed Salem, Manal Salah **Supervisors**

El Din Fahmy, Husien Ahmed

Shaker.

Degree : Doctoral.

Year 2007.

Abstract

The purpose of the study is to evaluate if electromagnetic therapy can improve muscle activities, gait disorders (Kinetic and Kinematic analysis) and activities of daily living in parkinsonian patients. Subjects thirty male and female parkinsonian patients, their ages ranged from 50 to 77 years. They were randomly divided into two equal groups (GI and GII), GI is a control group and was treated by traditional physical therapy program only, GII is an experimental group and was treated by the same traditional physical therapy program and low frequency electromagnetic therapy. All subjects have received the therapy training exercises for 40 minutes (five minutes training and five minutes rest respectively), this means 20 minutes training and 20 minutes rest, three days per week day after day for six weeks. The frequency of electromagnetic therapy is 0.5 Hz, 30% intensity and 20 minutes duration. Vital signs (Blood pressure, temperature, pulse rate and respiratory rate) for all patients were measured before, during and after the treatment sessions. Assessments, all patients were assessed by unified parkinson's disease rating scale, motion analysis system, Purdue pegboard and EMG before and after the last session. Statistically the results showed that, there was a significant improvement that occurred in both groups with the best results for GII, regarding the clinical kinematics, kinetics and electromyographic parameters. According to the statistical analysis, the electromagnetic stimulation with 0.5 Hz, 30% intensity and 20 minutes is considered very effective in rehabilitating parkinsonian patients.

Key words : Electromagnetic stimulation, Gait

analysis, Electromyography, **Kinematic** Kinetic analysis,

analysis, Parkinsonism.

استخدام العلاج الكهرومغناطيسي في علاج : Arabic Title Page مرضى الشلل الرعاش.

Physical Therapy
Department for
Growth and
Developmental
Disorder in Children
and its Surgery

Author : Abd El Aziz Ali Abd El Aziz.

Title : Effect of visuomotor coordination

training on fine motor skills in spastic hemiplegic cerebral palsy

children.

Dept. : Physical Therapy Department for

Growth and Developmental Disorder in Children and its

Surgery.

Supervisors : Hoda Abd El-Azim El-Talawy,

Lobna Abd El Goad Mansour,

Mervat Ahmed Shwaky.

Degree : Doctoral.

Year : 2007.

Abstract:

This study was carried out on fourteen spastic hemiplegic cerebral palsy children randomly divided into two equal groups: control and study. Visual motor coordination of these children as well as their hand functions were evaluated before and after six months of rehabilitation programs. The objectives were to study the effect of improvement of visual motor coordination abilities on hand functions spastic hemiplegic cerebral palsy children. "Control" group was subjected to hand functions rehabilitation program using tasks selected from PDMS-2, while "study" group subjected to rehabilitation program using the Rehacom system in addition to hand functions rehabilitation program. The combination of visual motor integration and hand functions training had been shown to be more effective than hand functions rehabilitation alone in improving motor performance. This result could be attributed to visual motor integration rehabilitation activity on the muscular system and appropriate sensory motor experience for enhancement preference.

Key words : Hemiplegic children, visual motor

integration, Hand functions, Rehabilitation, Rehacom system,

PDMS-2.

معيل القدرات البصرية الحركية على : Arabic Title Page

المهارات الحركية الدقيقة في الأطفال المصابين

بالفالج الشقى التشنجي.

Author : Akram Mohamed Helmy Abdalla.

Title : Effect of mechanical vestibular stimulation on back geometry and

spinal mobility in spastic diplegic

children.

Dept. : Physical Therapy Department for

Growth and Developmental Disorder in Children and its

Surgery.

Supervisors : Kamal Elsayed Shoukry, Ashraf

Mohamed Azmy Abdel-Gawad.

Degree : Doctoral.

Year : 2007.

Abstract :

The purpose of the current study was to investigate the effect of mechanical vestibular stimulation on back geometry and spinal mobility in spastic diplegic children. Thirty spastic diplegic children were classified into two groups, study group (I) which received a program of mechanical vestibular stimulation and selected exercise program, and control group (II) which received selected exercise program only. For metric II system (including spinal mouse) was used to measure back geometry and spinal mobility before and after three months of the treatment program. The results showed that group (I) showed greater improvements in all the measured parameters of back geometry and spinal mobility than did group (II).

Key words : Vestibular system, vestibular

stimulation, back geometry, spinal mobility, spastic diplegia, cerebral

palsy.

Arabic Title Page : تأثير التنبيه الحركي لدهليز الأذن علي جيومترية

الظهر ومدي حركة العمود الفقري في الأطفال

المصابون بالشلل الرباعي التقلصي.

Author : Mohamed Bedair Ibrahium.

Title : Dynamic postural control:

treadmill training with partial weight bearing in hemiparetic

cerebral palsied children.

Dept. : Physical Therapy Department for

Growth and Developmental Disorder in Children and its

Surgery.

Supervisors : Emam Hassan El Negmy; Hoda

Abdel Aziem El Talawy; Lobna

Abd Gawad Mansour.

Degree : Doctoral.

Year : 2007.

Abstract:

The purpose of this study was to evaluate dynamic postural control in spastic hemiparetic cerebral palsied children following the participation of a physical therapy program including; treadmill training with partial body weight support (30% relief of total body weight) using the suspension system in addition to a specially designed exercise program. Thirty spastic hemiparetic children ranged in age from 7 to 10 years old participated in this study. They were classified randomly into two groups of equal number, (control and study). Balance parameters were assessed using the Biodex stability system in both groups before and after three months of the application of the treatment program. The results of this study revealed statistically high significant improvement in the measuring variables of both the control and study groups when comparing their pre and post treatment mean values. However, more improvement was noticed in the study group when comparing the post treatment mean values of the study group with the control group.

Key words : **Postural Control, Balance, Cerebral**

Palsy, Hemiplegia, Treadmill,

Suspension System.

التحكم في القوام أثناء الحركة: التدريب على : Arabic Title Page

السير المتحرك مع التحميل الجزئى لوزن الجسم في حالات الخدل الشقى الطولى التقاصى عند

اطفال.

Author : Mohamed Hafad Abd El-wanees

Abd El-Hafez.

Title : Effect of laser therapy on

electrophysiological parameters in children with peripheral facial

palsy.

Dept. : Physical Therapy Department for

Growth and Developmental Disorder in Children and its

Surgery.

Supervisors : Emam Hasan El Negmy, Laila Abd

El Moteleb Selim, Hala Rashad El

Habashy.

Degree : Doctoral.

Year : 2007.

Abstract :

This study was conducted to examine the effect of the laser therapy on regeneration rate of the facial nerve in children with facial palsy. 35 children were assigned randomly to four groups. Subjects in the three study groups were treated with laser with three different doses. Subjects in the control group received placebo laser. Results showed significant increase in the regeneration rate in one of the study groups (4 J/cm²) only.

Key words : Facial Palsy, laser therapy,

electroneurography.

Title Page : تأثير العلاج بالليزر على قياسات التقييم الكهربائي

عند الأطفال المصابين بالشلل الوجهي الطرفي.

Department of Basic Science

Author : Ibrahim Moustafa Moustaf Abu

Amer.

Title : Remodeling of thoracolumbar

orthosis in view of 3D analysis and

its therapeutic application.

Dept. : Department of Basic Science.

Supervisors : Omaima Mohamed Aly Kattabei,

Mohsen M. El-Sayyad, Ibrahim T.

EL-Gaeedy.

Degree : Doctoral.

Year : 2008.

Abstract :

Background: The effectiveness of the bracing concept in the treatment of adolescent idiopathic scoliosis (AIS) has been the subject of debate for many years. The concept prevailing today uses a mechanical three-point system, ignoring the three dimensional nature (3D) of scoliosis. The purpose: This study was conducted to verify the results of a new optimization approach using a 3D postural analysis, compared to traditional treatment. Patients: Forty five AIS patients with mean age (15.46±1.2) years were participated in this study. Fifteen patients participated in test retest with blind raters design, the remaining thirty patients were assigned randomly into two equal groups (study and control group). Method: 3D orientation in terms of translational and rotational displacements, in addition to 3D scoliotic angle were measured before and after the application of adjustable thoracolumabr orthosis. Results: The ambulatory thoracolumbar posture corrective orthosis produced significant improvement in 3D thoracolumbar orientation in terms of rotations and translations in addition to 3D scoliotic angle. Rotation around Z axis (48.75%) (P<0.0001), rotation around X axis (52.09%) (P<0.0001), rotation around Y axis (flexion and extension) (30.3%) (P=0.007), translation around X axis (48.1%) (<0.0001), translation around Y axis (17.7%) (0.0132), and 3D scoliotic angle (12.57%) (P=0.0054) while the control group showed no statistical significant improvement in any of the previous variables. For the study group, the multiple regression analysis correctly estimated the 3D scoliotic angle from combined aspects of torso balance including rotational displacement around X, Y, and Z axis and translational displacement around X and Y axis $(R^2 = 97.2\%)$ (P=0.0064). Conclusion: It was concluded that ambulatory thoracolumbar posture corrective brace is safe and efficient modality to improve the 3D orientation of thoracolumabr region and 3D scoliotic angle.

Key words : AIS, Thoracolumbar orthosis, 3D

Analysis.

اعادة تصميم الدعامة الظهرية القطنية في ضوء : Arabic Title Page

التحليل الثلاثى الأبعاد وتطبيقاتها العملية.

Author : Kadria Hosny Mohammed

Battecha.

Title : Efficacy of different therapeutic

modalities on altering pressure and skin blood perfusion in diabetic

neuropathic foot.

Dept. : Department of Basic Science.

Supervisors : Awatef Mohammed Labib, Sami

Abd-El Samad Nasef, Ali Mamdoh El Ashmawi, Abeer Abd-El

Rahman Mohammed.

Degree : Doctoral. Year : 2008.

Abstract :

Objectives: This study was done to investigate the effect of ankle and foot ROM exercises and Low Intensity Laser Therapy (LILT) on altering the plantar pressure points of foot, skin blood perfusion and pain in diabetic neuropathic foot, to prevent the foot ulcer that lead to lower extremity amputation. Subjects: forty five diabetic polyneuropathic patients (25) females and 20 males) were selected from the out clinic of diabetes in El-Kasr El-Einy hospital with mean age was 53.2±3.94 years, mean height was 165.2±6.14 cm, and mean weight was 80.53±5.8 kg. Methods: all patients were assigned randomly into three equal groups. Group A (ROM group) that received ankle and foot exercises in the form of passive stretching and free active exercises as home program, Group B (LILT group) that received LILT on plantar surface of foot and lumbo-sacral region, and Group C (combined group) that received the both. Peak plantar pressure, microcirculation, and pain were measured pre and post treatment by Tec scan clinical foot, Laser Doppler flow meter and Visual Analogue Scale, respectively. Three areas in plantar surface of foot were measured; the big toe, little toe and centre of heel. The every patient in 3 groups received 3 sessions per week for 4 weeks plus home routine exercise for exercise and combined groups. One way ANOVA with repeated measurements was done to determine the significance effect in all variables. Results: there was significance decrease in both static and dynamic plantar pressure in all groups with higher significance in group C. Also, there was significance decrease in pain intensity in all groups with higher significance in group C. While, there was significance increase in skin blood perfusion in all groups with higher significance in group C. Conclusion: there are a significance effect of foot and ankle ROM exercises and LILT on foot plantar pressure, skin blood perfusion and pain in diabetic neuropathic patients.

Key words : Diabetes mellitus, polyneuropathy,

Diabetic foot, microcirculation, Range of motion exercise, low

Intensity laser Therapy.

تاثير الوسائل العلاجية على تغيير الضغط : Arabic Title Page والدورة الدموية الجلدية في القدم السكري.

Author : Soheir Shehata Rezk-Allah Rezk.

Title : Effect of aerobic exercise on

chronic non-cirrhotic active

hepatitis c (HCV).

Dept. : Department of Basic Science.

Supervisors : Samy Nasif, Fawzy Ahmed Halawa,

Gamal Esmat.

Degree : Doctoral.

Year : 2008.

Abstract :

The study was to investigate the effect of aerobic exercise on IL-2 and IF γ , and ALT and AST in patients with chronic non-cirrhotic active HCV. 40 patients, two groups, exercise group who received aerobic exercise for two months, two sessions a week, control group who didn't receive exercise. Their mean age was (40±5). Serum level of IL2 and IF γ were measured using ELISA test, also serum levels of ALT and AST were measured before and after exercise. There was statistical significant increase in serum levels of IF γ , IL2, decease in ALT and AST in the experimental group while there was no statistical significant difference in serum levels of IL2 and IF γ , and there was a significant increase in levels of ALT and AST without exercise.

Key words : HCV, Aerobic exercise, immune

system.

تأثير التمرينات الهوائية على مرضى الألتهاب : Arabic Title Page

الكبدى المزمن الغير تليفي الفيروسي سي.

Department of Biomechanics

Author : Ahmed Salamah Yamani.

Title : Gait and balance deviations

following unilateral hip

arthroplasty.

Dept. : Department of Biomechanics.

Supervisors : Ahmed Hassan Hussein, Ahmed

Emad El-Din Rady, Salam

Mohamed El-Hafez.

Degree : Doctoral.

Year : 2008.

Abstract:

Objectives: The purposes of this study were: (1) to recognize any deviations in vertical displacement of center of gravity secondary to unilateral hip arthroplasty, (2) to detect the changes in the measurements of horizontal ground reaction forces, (3) to explore any changes in hip and knee abduction moments, inversion and eversion moments around ankle, (4) to determine any impairments in dynamic stability control following unilateral hip arthroplasty. Subjects: 20 hip arthroplasty patients and 10 healthy matched volunteers participated in this study. Methods: Three dimensional motion analysis system and force plate were used for kinematic and kinetic parameters assessment. Biodex balance system was used for testing the dynamic balance. The results gained from the hip arthroplasty patients were compared with those from the healthy matched volunteers. Results: There was insignificant difference (P<0.05) in vertical displacement of COG between hip arthroplasty patients and healthy subjects. The horizontal shear forces for the operated side were less than those for non-operated side and healthy subjects. The hip and knee abductor moments significantly decreased for the operated side in comparison with non-operated side. In addition, inversion and eversion moments around ankle significantly decreased for the operated side. Conclusion: Patients with hip arthroplasty are less stable during free walking than healthy subjects. In addition, impairments around hip, a knee and ankle joints should be considered during establishment of rehabilitation programs for patients with hip prosthesis.

Key words : Kinematics, Kinetics, Gait analysis,

Hip Arthroplasty, Balance.

إنحرافات المشى والإتزان بعد تغيير مفصل الفّخذ. : Arabic Title Page

Author : Ahmed Yousry Radwan.

Title : Mechanical compensations of lower

extremity following anterior cruciate ligament reconstruction using autogenic hamstring muscle

graft.

Dept. : Department of Biomechanics.

Supervisors : Salam Mohamed El-Hafez, Ashraf

Elazzazi.

Degree : Doctoral.

Year : 2008.

Abstract :

To adequately absorb shock during the landing phase of both jogging and forward hopping, there is rapid increase in summated extension moments of lower extremity joints. This increase was found to be significantly lower in persons who had ACL reconstruction procedure using patellar tendon auto graft. The purpose of the study was to investigate the extension moments of subjects who had ACL reconstruction procedure using semitendinosus auto graft during the landing phase of both jogging and forward hopping. Kinetic gait parameters were collected from both operated and non-operated lower extremities of 9 male subjects who had ACL reconstruction 6 months ago (mean age 28.3 ± 6.7, mean height 1.77 m \pm 0.09, and mean weight 83.4 kg \pm 9.7) and 9 matched normal subjects. A within-subject design was selected to compare the operated and non-operated sides. Bilateral lower extremity kinetic data were collected during jogging and forward hopping. Data were analyzed using paired t-test with an alpha level of 0.05. There was no significant difference (p > .05) in the summated extension moment values between the operated and non-operated lower extremities during jogging with means of 3.28 \pm 0.76 and 3.88 \pm 0.82 respectively (r= 0.753, p < .05). This result may indicate that at the end of the rehabilitation period, subjects undergoing this operative technique were able to adequately absorb the shock imposed on their lower extremities during jogging.

Key words : ACL, Reconstruction, Extension

moments.

Arabic Title Page : عملية عملية للأطراف السفليه بعد عملية

إعادة بناء الرباط الصليبي الأمامي بإستخدام طُعم ماخوذ من الجانب الأنسبي للعضله الإسكيه

ماقيه.

Author : Anees Saleh Soliman Ghiet.

Title : Assessment of balance in normal

subjects and in patients with diabetic neuropathy receiving a

training program.

Dept. : Department of Biomechanics.

Supervisors : Ahmed Hassan Hussein, Nagui

Sobhi Nassif, Sohair Mohamed

Abdel - Rhman.

Degree : Doctoral. Year : 2008.

Abstract :

The purpose of the study was to determine the difference in the measurements of balance between normal, diabetes without neuropathy and with neuropathy. Also determine the effect of balance training program on these patients. Forty five subjects contributed in this study divided into three groups, normal, diabetes without neuropathy and with neuropathy, each group consisted of fifteen subjects. The three groups were assessed on the balance system. The second and third group were trained on the balance system for two months and reassessed again. The results of the study revealed that there is decrease in balance in both second and third group. Also there was a significant difference between the balance parameters in the group two post treatment than pre treatment, this indicates that there was improvement in balance. There was no significant difference between the balance parameters in the third group post and pre treatment, this indicated that there was no improvement of balance in the third group after receiving the balance training program.

Key words : Controlled diabetes without

neuropathy, Uncontrolled diabetes

with neuropathy, Balance.

تقييم الاتزان في الأصحاء وفي مرضي التهاب : Arabic Title Page

الأعصاب السكري الخاضعون لبرنامج تدريبي.

Physical Therapy
Department for
Cardiopulmonary
Disorder and
Geriatrics and its
Surgery

Author : Aisha Abdel-Monem Solieman.

Title : Ozone therapy versus low intensity

laser therapy effect on angiopathy

in diabetic foot ulcer.

Dept. : Physical Therapy Department for

Cardiopulmonary Disorder and

Geriatrics and its Surgery.

Supervisors : Hala Mohamed Ezz-eldeen,

Mohamed Nabil Mawsouf, Neveen

Hemamy Mohamed.

Degree : Doctoral.

Year : 2008.

Abstract :

This study was conducted to compare between the effect of ozone therapy and low intensity laser therapy on angiopathy in diabetic foot ulcer. Forty patients with type II diabetes mellitus complain from diabetic foot ulcers participated in this study, the patients were divided into two groups: Group A received the conservative wound care plus ozone therapy. Group B received the same conservative wound care plus the low intensity laser. The results revealed significant reduction in ulcer size and volume in both groups, significant difference between ozone and laser therapy groups in ulcer size and volume in the favour of ozone therapy, significant difference between ozone and laser therapy groups on Doppler finding in the favour of ozone.

Key words : Ozone therapy, Low intensity

laser therapy, Diabetic foot ulcer.

تأثير العلاج بالأوزون مقابل الليزر منخفض : Arabic Title Page

الشدة على اعتلال الأوعية الدموية في قرحة

القدم السكرى.

Author : Amal Ibrahim Mohamed.

Title : Electrical stimulation as a new

rehabilitation tool for patients with chronic obstructive pulmonary

disease.

Dept. : Physical Therapy Department for

Cardiopulmonary Disorder and

Geriatrics and its Surgery.

Supervisors : Azza Abdelaziz Abdelhady, Faris

Mohamed Oof, Azza Fekry Ismail.

Degree : Doctoral.

Year : 2008.

Abstract:

Background: COPD patients is associated with worsening dyspnea, reduced leg strength, and poor exercise tolerance. Although exercise training improves exercise tolerance in most patients, some patients may not be able to tolerate exercise training due to incapacitating breathlessness. The electrical muscle stimulation has been shown to improve muscle strength, muscle mass, and performance. Purpose: The purpose of this study was to determine if the electrical stimulation is useful tool in improving exercise tolerance and quality of life in patients with COPD. Methods: Forty patients (males) with a clinical and functional diagnosis of COPD their ages ranged between (55- 65 years) and smoker for at least 25 years participated in this study. Those patients were divided randomly into two equal groups, 20 in group A (control group) and 20 in group B (study group). electrical stimulation was applied as a placebo for control group and an actual stimulation for study group, for 15 minutes on each muscles of the thight, three times / week for 10 weeks. Assessment was done before starting the program after ending, and it included Pulmonary function test, and Cardiopulmonary exercise tests, Dynamometer, MRC Dyspnea scale ,Clinical COPD Questionnaire. Results and Conclusions: Electrical stimulation improve both quadriceps and hamstring muscles. These improvement in muscle strength carried over to Improve VO2max ,VE and quality of life. While There are no improvement in Pulmonary function tests and Medical Research Council Dyspnea scale.

Key words : Pulmonary rehabilitation, chronic

obstructive pulmonary disease

electrical stimulation.

التنبيله الكهربائي كأداة جديدة لتأهيل مرضى : Arabic Title Page

السدة الرئوية المزمنة.

Author : Eman Mohammad ELsayed Ali.

Title : Influence of different physical

modalities on obese females.

Dept. : Physical Therapy Department for

Cardiopulmonary Disorder and

Geriatrics and its Surgery.

Supervisors : Zeinab Helmy, Sayed Abd EL

Hamid.

Degree : Doctoral.

Year : 2008.

Abstract :

The aim of the present study was to determine the influence of some physical modalities on obese females and to compare between these modalities considering their effect on both body weight and regional obesity ,Forty obese females participated in the study and were randomly assigned into four equal groups of 10 subjects each ,the first group(A) received diet only ,the second group(B) received diet and exercises, the third group (C) received diet and mesotherapy while the fourth group (D) received diet and acupuncture stimulator, The study took a whole month ,weight ,height, fat analysis, waist and hip circumferences were measured before and after treatment ,the study showed significant change in both weight reduction and waist-hip circumference in both mesotherapy and acupuncture groups while there was a significant change in body weight in exercise group with no significant change in waist and hip circumferences ,the diet group showed no significant change neither in body weight nor body measurements.

Key words : Obesity, Acupuncture, Diet,

Exercises, Mesotherapy.

Arabic Title Page : تأثير بعض الوسَائل الطبيعية على السيدات

البدينات.

Author : Hany Ezzat Obaya.

Title : Left ventricular parameters

changes in obese hypertensives

after body weight reduction.

Dept. : Physical Therapy Department for

Cardiopulmonary Disorder and

Geriatrics and its Surgery.

Supervisors : Azza Fikry Ismail, Awny Foad

Rahmy, Mohamed Mohamed

Faried Elgndy.

Degree : Doctoral.

Year : 2008.

Abstract :

The purpose of this study was to compare between the therapeutic efficacy of an aerobic exercise with diet program from one hand, and adding electrical stimulation to previous program from the other hand, on left ventricular (LV) parameters in obese hypertensive middle aged male subjects. Thirty volunteers male participated in this study, their age ranged from 40 to 60 years with mean value (48.9 \pm 5.991) years, were selected from National Heart Institute outpatient clinic, divided randomly into two equal groups. First group participated in treadmill walking (3 times per a week) for 30 min and day after day outdoor walking for 30 min in the other three days, with daily abdominal exercises for 20 repetitions. In addition to this program, the other group enrolled in day after day faradic stimulation. Both groups underwent balance diet regimen program (800-1200) K. cal. /day. The program extended till 4 months. Evaluation which carried out before and at the end of study included measuring: body mass index (BMI), waist hip ratio (WHR), Blood pressure (systolic and diastolic), Lipid profile analysis (triacyle glycerol TAG, high-density lipoprotein HDL, low-density lipoprotein LDL), ejection fraction (Ef %), left ventricular end diastolic diameter (LVEDD), fraction shortening (FS %), left ventricular posterior wall thickness LVPWT and left ventricular superior wall thickness (LVSWT). There was a highly significant improvement in blood pressure (systolic and diastolic), Lipid profiles (TAG, HDL, LDL) and LV functions in form of (Ef, LVEDD, FS) from pre-test values to post-test values in both groups. While, there was no significant differences in LVPWT and LVSWT from pre-test values to post-test values in both groups. Results also, revealed that the improvement of [WHR, SBP, Lipid profiles, Ef, LVEDD and FS] in faradic stimulation group is more than in exercise group. Finally, there is an effect of both faradic stimulation (to greater extent) and exercises (to lesser extent) in improvement LV parameters.

Key words : Diet, Echo, Ejection fraction,

Exercise, Faradic, Hypertension, Obesity, Ventricular functions.

التغيرات القياسية للبطين الأيسر لدى البدناء : Arabic Title Page

المصابين بارتفاع ضغط الدم بعد إنقاص الوزن.

Author : Hatem Abdel Raheim Mosa Kamar.

Title : Changes in gait characteristics

during normal cadence in elderly.

Dept. : Physical Therapy Department for

Cardiopulmonary Disorder and

Geriatrics and its Surgery.

Supervisors : Awny Fouad Rahmy, Al Sayed

Abd-Elhamed Abo-Shanb, Nagui

Sobhi.

Degree : Doctoral.

Year : 2008.

Abstract:

This study was established to recognize three dimensional impairment of gait parameters occurs during the free speed gait of elderly subjects. This was done by three dimensions kinematics (hip, knee, and ankle angular motion); and kinetics (muscular activities of Gluteus Medius, Quadriceps, and Tibialis Anterior) gait analysis. The results gained from 20 elderly subjects were compared with that of 10 healthy matched volunteers. The elderly walked with reduced stride length and frequency, resulting in reduced speed and increased stance ratio. In addition, elderly walked with decreased hip flexion, compensated by increased anterior pelvic tilt. Also there was delayed hip extension. Moreover, reduced and delayed knee excursion was detected as well as reduced ankle dorsiflexion compared to the normal level of healthy young subjects. Kinetically, higher EMG activities of Gluteus medius and quadriceps were noted. While reduced activities of anterior tibial group were detected in elderly compared to young individual.

Key words : Gait analysis, elderly, kinetics,

kinematics.

تغيرات خصائص المشي المرتبطة بالسن أثناء : Arabic Title Page

المشي بسرعته لدي المسنين.

Author : Khalid Taha Yassin Abdou Turky.

: Correlation between respiratory **Title**

muscles strength and quality of life pulmonary rehabilitation after

program in COPD.

: Physical Therapy Department for Dept.

Cardiopulmonary Disorder

Geriatrics and its Surgery.

Supervisors : Azza Abd El Azeiz Abd El hady,

Adel M. Khattab.

Degree : Doctoral. Year 2008.

Abstract

Forty COPD stable patients were participated in the present study. Their ages were ranged from 55 to 65 year-old .All patients had a moderate airflow obstruction and were included with the presence of COPD as defined by the American Thoracic Society. The sample populations were divided into (group T) and (group C). The study conducted along a period of six weeks, three sessions per week. Both groups were reevaluated after six weeks. All patients in group T were underwent pulmonary rehabilitation program in form of four phases which were warming up phase, conditioning phase, cooling down phase, and finally relaxation phase. The results showed that statistically significant improvement of all variables in group T. The correlation between respiratory muscles strength and quality of life showed weak correlation between two these variables.

Key words : Respiratory muscles, Quality of life,

COPD.

الارتباط بين قوة عضلات التنفس و مدى كفاءة **Arabic Title Page**

الحياة بعد برنامج تأهيلى رئوى لمرضى السدة الرئوية المزمنة.

Physical Therapy Department for Obstetrics and Gynaecology and its Surgery

Author : Fayiz Farouk Ibrahim.

Title : Efficacy of low frequency current in

the treatment of female stress

urinary incontinence.

Dept. : Physical Therapy Department for

Obstetrics and Gynaecology and its

Surgery.

Supervisors : Fahima Metwally Okeel, Salwa

Mostafa El Badry, Ahmad Abd El-

Lateef Moharm.

Degree : Doctoral.

Year : 2008.

Abstract:

This study was designed to detect the efficacy of low frequency current of the pelvic floor muscles in the treatment of female stress urinary incontinence. Thirty volunteer women, diagnosed with mild stress urinary incontinence, their age ranged from 30-40 years (34.66±3.56). They were divided randomly into two groups equal in number. Group (A) received low frequency currents for the pelvic floor muscles, while, group (B) was treated with pelvic floor exercises by using the perineometer. Assessment of vaginal and leak point pressures were done before starting the treatment, and after the end of the 36th session. The obtained results showed a highly statistically significant (P<0.01) increase in both groups (A&B) concerning the vaginal and leak point pressures. The improvement was highly significant (P<0.01) in group (B) when compared with group (A). Comparative analysis in group (A) to that of group (B) indicated highly significant (P<0.01) improvement in subjective assessment scores in favoring to group (B) at the end of the programmed. Accordingly, it could be concluded that the use of electrical stimulation for PFMs appears to be effective in the management of mild degree of stress urinary incontinence. Yet, the pelvic floor exercises were found to be more superior in comparing with electrical stimulation of PFMs.

Key words : Stress, Urinary Incontinence,

Electrical Stimulation, Pelvic Floor

Exercises.

Arabic Title Page : علاج علاج منخفض التردد في علاج

السلس البولي الاجهادى لدى السيدات.

Author : Mohamed Ahmed Mohamed

Hassanain Awad.

Title : Effect of exercises on postural

changes during pregnancy.

Dept. : Physical Therapy Department for

Obstetrics and Gynaecology and its

Surgery.

Supervisors : Fahima Metwally Okeel , Ibrahim

Mahrous Kandil, Amel Mohamed

Yousef.

Degree : Doctoral.

Year : 2008.

Abstract :

This study was conducted to determine the effect of exercises on the postural changes during pregnancy. Forty primigravid women having single fetus at first trimester of pregnancy shared in this study. They were divided randomly into two groups equal in number. Group (A) performed an exercise program. Group (B) continued their ordinary life style. Thoracic kyphosis angle, lumbar lordosis angle and pelvic inclination angle were evaluated (for both groups) by the formetric II at 12, 22 and 32 weeks' gestation in Spinal Shape Analysis Laboratory at Faculty of Physical Therapy, Cairo University. The obtained results showed a statistically non significant difference in thoracic kyphosis angle, lumbar lordosis angle and pelvic inclination angle respectively at 12 weeks' gestation and a statistically highly significant difference at 22 and 32 weeks' gestation with less increase in group (A) compared to group (B). It could be concluded that this ante natal exercise program is very effective in reducing postural changes during pregnancy.

Key words : Pregnancy, Posture, Formetric II,

Thoracic kyphosis, Lumbar

lordosis, Pelvic inclination.

تأثير التمرينات على تغيرات القوام أثناء الحمل. : Arabic Title Page

Physical Therapy Department for musculoskeletal disorder and its Surgery

Author : El Sadat S. Soliman.

Title : Effects of partial body weight

support on dynamic balance and distance of walking in chronic low

back pain.

Dept. : Physical Therapy Department for

musculoskeletal disorder and its

Surgery.

Supervisors : Ahmed H Hussein, Salwa F. Abd

Almajed, Enas F. Usif.

Degree : Doctoral.

Year : 2008.

Abstract :

The purpose of this study was to investigate the effects of partial body weight support on dynamic balance and the walking distance in chronic mechanical low back pain. A comparison was done between two groups: experimental group (20 patients) and control group (10 healthy subjects). The dynamic balance was measured in both groups by using Biodex balance system before and during partial body weight support, in experimental group: pain was measured by using Visual Analogue Scale and walking distance by RAM treadmill before and during partial body weight support. The results were statistically analyzed by using the t-test, Pearson's correlation coefficient test. The results of the study showed significant difference between both groups in dynamic balance before and during partial body weight support in favor of control group. In experimental group, there was a significant difference during partial body weight compared with before partial body weight support. Pearson's correlation coefficient test showed that the improvement in distance of walking had stronger correlation with pain reduction than with improvement in dynamic balance during partial body weight support In chronic mechanical low back pain subjects, it could be concluded that, during partial body weight support (15 % of body weight), the dynamic balance could significantly be improved, the pain could significantly be reduced, and consequently the walking distance could be improved.

Key words : chronic mechanical low back pain,

dynamic balance, partial body

weight support.

تأثيرات دعم وزن الجسم الجزئي على الاتزان : Arabic Title Page

الديناميكي و مسافة المشي في ألم أسفل الظهر

الميكانيكي المزمن.

Author : Lilian Albert Zaky Shehata.

Title : Myofascial trigger points pressure

release versus exercises therapy in the treatment of chronic cervical myofascial pain dysfunction

syndrome.

Dept. : Physical Therapy Department for

musculoskeletal disorder and its

Surgery.

Supervisors : Bassem El Nahass, Aly Mohamed

El Zawahry.

Degree : Doctoral.

Year : 2008.

Abstract :

The purpose of this study was to compare the effect of myofascial trigger points pressure release versus exercises therapy in chronic cervical myofascial pain dysfunction syndrome. Four treatment sessions were given for eight days. It was found that each of the pain intensity, the neck disability index, and the range of motion of active neck side bending were more significantly improved in the group of myofascial trigger points pressure release. Three treatment sessions of myofascial trigger point's pressure release are enough, while at least three sessions of exercises are necessary; for the treatment of chronic cervical myofascial pain dysfunction syndrome.

Key words : Cervical myofascial pain

dysfunction syndrome, myofascial trigger points pressure release,

exercise therapy.

Arabic Title Page : الضغط الانفراجي لنقاط النسيج العضلي الضام

المستهدفه مقابل التمرينات العلاجيه في علاج الآلام المصاحبة للاختلال الوظيفي المرمن

للنسيج العضلى الضام لعضلات الرقبه.

: Magdoline Micheal Samy Saad. **Author**

: Assessment of proprioception in **Title**

pre-operative and postoperative carpal tunnel syndrome patients following different physical therapy

programs.

: Physical Therapy Department for Dept.

musculoskeletal disorder and its

Surgery.

: Bassem Galal El Dein El Nahass, **Supervisors**

Yasser El Safouri.

Degree : Doctoral.

Year 2008.

Abstract

The purpose of this study was to find out if there is a proprioceptive deficit in carpal tunnel syndrome; and if it is corrected after the different physical therapy programs following the surgical release or not. Which of the different physical therapy programs is more effective in restoring proprioception and finally, is there any correlation proprioception and symptoms severity, or between proprioception and functional disability? Results: There is a defect in proprioception in carpal tunnel syndrome patients. After the surgical release, this defect is only corrected by using the proprioceptive training of the wrist joint plus the traditional physical therapy program. There is no significant correlation between proprioception and symptoms severity or functional disability either before or after surgery.

Kev words : proprioception, carpal tunnel

syndrome, symptom severity,

functional disability.

تقييم مستقبلات الإحساس العميقة قبل و بعد **Arabic Title Page :**

التدخل الجراحي لمرضى ضيق النفق الرسغي بعد برامج العلاج الطبيعى المختلفة.

Author : Mohamed Amal Elazhary.

Title : Physical therapy profile for lower

limb amputees.

Dept. : Physical Therapy Department for

musculoskeletal disorder and its

Surgery.

Supervisors : Ahmed Hassan Hussein, Salwa

Fadl, Enas Fawzy.

Degree : Doctoral. Year : 2008.

Abstract :

This study investigates the efficiency of the rehabilitation program for lower limb amputees in Great Cairo. One hundred and forty-one subjects with lower limb amputation participated in this study. They were assigned into five groups; social support, the general organization for teaching hospitals and institutes, private centers, teaching hospital and Agoza Military Center for Rehabilitation. The results revealed that there was a significant difference to the favor of private centers followed by the military and social support group on the same level then the educational and teaching hospitals. The study also revealed that not all the patients received physical therapy program or prosthesis in addition to some defects that were noticed in rehabilitation program including gait training, desenstization and functional training programs.

Key words : Amputation of the Lower Limb,

Rehabilitation, Physical Therapy.

دراســة وصفية للعلاج الطبيعي لمرضى بتر : Arabic Title Page

الطرف السفلي.

: Mona Hasan Gamal El Deen El **Author**

Lathi.

Title : Effectiveness of electromyographic

improving biofeedback in quadriceps strength and voluntary activation after total knee

arthroplasty.

: Physical Therapy Department for Dept.

musculoskeletal disorder and its

Surgery.

Supervisors Ahmed Hassan Hussein, Hisham

> Mohammed, Abdel Baki Inas

Fawzy Youssef.

Degree Doctoral. Year 2008.

Abstract

This study was conducted to investigate the effect of electromyographic (EMG) biofeedback exercise on improving muscle strength and voluntary activation of the quadriceps muscle as well as on patient's function after total knee arthroplasty (TKA). Twenty patients who underwent TKA 4-6 weeks prior to the study participated in this study. Quadriceps peak torque was measured using biodex 3 isokinetic dynamometer. Voluntary activation was measured using burst superimposition technique. Patient's function was assessed by Western Ontario and McMaster (WOMAC) osteoarthritis index. Patients were assigned into EMG biofeedback group or traditional exercise group. Results showed that quadriceps strength and voluntary activation and function were significantly improved in both groups. After treatment there was a significant difference between both groups in WOMAC score, while there was no significant difference in muscle strength and voluntary activation of the quadriceps muscle. The results of the current study don't support the use of EMG biofeedback to improve voluntary activation of the quadriceps after TKA.

Key words : Electromyography, Biofeedback,

Quadriceps Strength, Total Knee

Arthroplasty.

فعالية استخدام التغذية الرجعية باستخدام رسم **Arabic Title Page :**

العضلات علي تحسين القوة والتنشيط الإرادي للعضلة ذات الأربع رءوس بعد عمليات التعلير

الكامل لمفصل الركية

Physical Therapy Department of Surgery

Author : Ali Osman Ali.

: Efficacy of pulsed direct current Title

versus continuous direct current in tap water iontophoresis in treating

palmar hyperhidrosis.

: Physical Therapy Department for Dept.

Surgery.

: Adel Abdel Hamid Nossier, Wafaa **Supervisors**

Hussien Borhan, Hany Mohamed

Ez-El Din El Nazer.

Degree : Doctoral.

Year 2008.

Abstract

Purpose: of the current study was to investigate the effect of tap water iontophoresis(TWI) using pulsed direct current versus TWI using continues direct current on pulmar hyperhidrosis. Subject: Forty subjects were included in this study (20 males and 20 females). They had idiopathic palmer hyperhidrosis. Their ages ranged from 15 to 40 years old. The subject were divided randomly and equally into two equal groups. Procedures: Group (A) (20 patients) received 4 weeks of treatment with TWI using pulsed direct current and group (B) (20 patients) treated with TWI with continues direct current for 4 weeks the study by using Hyperhidrosis Disease Severity Scale. Treatment was administered for 20 minutes per session, with three sessions a week, for 4 weeks. Results: of this study showed a significant percentage of reduction in sweat production in both groups (A) and (B) 61.41% and 65.47% respectively and a significant improvement of HDSS both groups. It was observed that TWI using continuous direct current was more effective but not with a significant value. Some of the patients in group B (16 patients) had complaints of sensations of discomfort, skin irritation and electric shock. These complaints were rare in group A (2 patients) and electric shock was completely absent.

hyperhidrosis, **Kev words** : palmer TWI,

continuous direct current, pulsed

direct current.

فاعلية التيار المباشر المتقطع مقارنة بالتيار **Arabic Title Page :**

المباشر في العلاج بالتأين باستخدام ماء الصنبور لعلاج زيادة تعرق راحة اليد.

Author : Heba Ahmad Bahey El-Deen

Ahmad.

Title : Efficacy of light – emitting diode

therapy on diabetic foot ulcers.

Dept. : Physical Therapy Department for

Surgery.

Supervisors : Adel Abdel-Hameid Nossier, Mona

Mohamad Soliman.

Degree : Doctoral.

Year : 2008.

Abstract :

The aim of this study was to determine the efficacy of light-emitting diode therapy in enhancement of chronic diabetic foot ulcer. Fifty patients participated in the study. They suffered from chronic foot ulcer as a complication of diabetes mellitus, their ages ranged from 50 to 70 years old. They classified into two equal groups (LED therapy group and standard medical therapy group). LED group received light – emitting diode therapy in addition to standard medical treatment, while standard medical group received standard medical treatment only. There was statistical significant reduction in wound surface area after 15 and 30 sessions. Additionally two weeks period of follow up was added to the total program. There was also statistical significant improvement in the degree of healing rate through histopathological assessment of the tissue biopsy after 30 sessions. Therefore, light-emitting diode therapy is an effective, innovative, non expensive modality in the treatment of diabetic foot ulcer combined with standard medical treatment.

Key words : Light, Emitting Diode, Wound

Healing, Diabetic Foot Ulcers.

فاعلية العلاج بالموحد الضوئي المُشع للضوء : Arabic Title Page

على قرح القدم السكري.

Author : Zahra Ahmed Ahmed Farid El-

Rewany.

Title : Effects of aerobic exercises and

micro current on immune parameters following neck lymph

nodes dissection.

Dept. : Physical Therapy Department for

Surgery.

Supervisors : Zakaria Mowafy Emam Mowafy,

Osama Ahmed El Malt,

Degree : Doctoral.

Year : 2008.

Abstract :

Purpose: to evaluate the efficacy of the aerobic exercises and micro current on immune parameters following neck lymph nodes dissection. Methods of evaluation (Measurement of the leukocytes total count, and differential counts of neutrophils, basophils, eosinophils, lymphocytes, and monocytes). Methods:- 30 male patients with reduced leukocytes total and differential counts following neck lymph nodes dissection were divided into three group. Group (A) received aerobic exercises training .Group (B) received micro current application, duration of treatment was 15 minutes, every other day for 2 months. Group (C) (Control group) received placebo micro current. Results: Result showed that both aerobic exercises training and micro current were effective, but aerobic exercises training was more fruitful and beneficial in increasing the decreased immune parameters than the micro current. Conclusion: - both were effective in increasing the decreased immune parameters, but aerobic exercises are more advantageous.

Key words : Aerobic exercises, Micro current,

Leukocytes, Immune parameters.

تأثيرات التمرينات الهوائية والتيار الكهربي : Arabic Title Page

الدقيق على حدود المناعة عقب استنصال العقد

لليمفاوية للرقبة.

Physical Therapy
Department for
Growth and
Developmental
Disorder in Children
and its Surgery

Author : Ahmed M. Azzam.

Title : Efficacy of dynamic postural

stability on modulation of motor neuron excitability in hemiparetic

cerebral palsied children.

Dept. : Physical Therapy Department for

Growth and Developmental Disorder in Children and its

Surgery.

Supervisors : Emam H. EL-Negmy, Hekmat M.

El Ghadban, Gehan El Menyawy.

Degree : Doctoral. Year : 2008.

Abstract :

Thirty spastic hemiparetic C.P. children were invited in this study. Their age was ranging from 4 to 7 years from both sexes. They were divided randomly into two groups of equal number (study and control). The study group was subjected to physical therapy intervention in the from of balance training program on Biodex stability system and euron-developmental techniques 3 times / week for 6 successive months period. The control group was subjected to physical therapy intervention in the form of N.D.T only. Hoffman Reflex / Myogenic Response ratio and hand grip strength parameters were recorded for every patient in the study and control groups before and after treatment. The results showed significant improvement in both groups but also significant difference was recorded in study group as compared with control group in the form of reduction of CNS excitability manifested by reduction in H / M ratio and increased functional abilities which was manifested by hand grip strength improvement.

Key words : Dynamic Postural Stability, Motor

Neuron Excitability, Hemiparetic

Cerebral Palsied Children.

Arabic Title Page : فاعلية ثبات الوضع الديناميكي في تنظيم استثارة

الوحدات العصبية الحركية لحالات الأطفال

المصابين بالفالج الشقى.

Author : Naglaa Ahmed Zaky.

Title : Effect of selected physical therapy

program on bone mineral density in

myelomeningocele.

Dept. : Physical Therapy Department for

Growth and Developmental Disorder in Children and its

Surgery.

Supervisors : Kamal El-Sayed Shoukry,

Mohamed Tawfik, Hatem Abdel

Rahman.

Degree : Doctoral.

Year : 2008.

Abstract

The purpose of this study was to investigate the effect of selected physical therapy program on bone mineral density in children with myelomeningocele. Thirty children from 2 to 4 years participated in this study. They were divided randomly into two groups of equal number (control and study). They were evaluated by Lunar Prodigy Advance apparatus. Control study received the ordinary physical therapy program for one hour, while the study group received the same program in addition to the selected program for one hour. The treatment program was practiced four sessions per week, for six successive months. Post treatment results revealed significant difference in pelvis, spine, legs and total body bone density. Significant improvement of lean component of trunk legs and total body was also recorded for both groups with more improvement in favor of the study group.

Key words : myelomeningocele, bone mineral

density.

Arabic Title Page : تأثير برنامج علاج طبيعي مختار على الكثافة

العظمية في الأطفال ذوى فتق الحبل الشوكي

رسحاياه.

Author : Nahed Shukri Thabet Farag.

Title : Neuromuscular scoliosis

modulation via myofeedback

training in spastic children.

Dept. : Physical Therapy Department for

Growth and Developmental Disorder in Children and its

Surgery.

Supervisors : Emam H. El- Negmy, Hoda A. El –

Talawy, Hala Salah El-Din

Mohamed.

Degree : Doctoral.

Year : 2008.

Abstract :

The purpose of this study was to investigate the effect of myofeedback training on neuromuscular scoliotic posture in spastic children. Forty spastic patient 20 hemiplegic and 20 diplegic (23 girls and 17 boys) diagnosed as neuromuscular scoliosis (21 Rt sided and 19 Lt sided) ranged in age from 5 to 7 years. They were divided randomly into two groups of equal number (control and study). Each group composed of twenty children. (Ten hemiplegic and ten diplegic). Control group received specially designed physical therapy exercise program for postural correction, while study group received the same program in addition to auditory and visual EMG myofeedback training. The treatment programs were conducted one hour, three times per week for six successive months. All children back geometry were assessed before and after treatment by using physical evaluation, Cobb's angle and formetric measurement (trunk imbalance, lateral deviation, surface rotation of vertebra, pelvic tilting, pelvic torsion). The results after the suggested period of treatment revealed significant improvement in both groups in (lateral deviation, surface rotation of vertebra, pelvic tilting and Cobb angle variables). There was highly significant difference between study and control group in trunk imbalance in favor of the study group, and non improvement in pelvic torsion.

Key words : spastic children, neuromuscular

scoliosis, myofeedback.

arabic Title Page : تقويم انحناء العمود الفقرى الناتج من الاضطراب

العضلى العصبى بالتغذية المرجعية للعضلات في

الاطفال المصابين بالشلل التقلصي.

Author : Rasha Abdel moneim Mohamed.

Title : Effect of visual versus auditory

myofeedback on gait pattern of

hemiparetic children.

Dept. : Physical Therapy Department for

Growth and Developmental Disorder in Children and its

Surgery.

Supervisors : Emam Hassan El-Negmy, Hala

Salah El-Din Mohamed.

Degree : Doctoral.

Year : 2008.

Abstract :

The purpose of this study was to compare between effects of visual and auditory myofeedback on gait pattern of hemipartic children. Forty-five hemipartic children, from 6 to 8 years old participated in this study. They were classified randomly into three groups of equal numbers. They received feedback training (visual, auditory; audiovisual for three groups respectively) of tibialis anterior muscle, in addition to the same selected exercise program. Gait parameters were assessed before and after three months of treatment using motion analysis system. The results revealed significant improvement in all measured variables for three groups with greater improvement in the favor of the auditory group.

Key words : visual, auditory, myofeedback, gait

pattern, hemiparetic.

مقارنة بين تأثير التغذية العضلية المرتجعة : Arabic Title Page

البصرية والسمعية على نموذج المشي لدى

الأطفال المصابين بالشلل النصفى الطولي.

Author : Samah Attia Tolba Mohamed El

Shemy.

Title : Normative isokinetic values of knee

muscles performance in healthy

school-age children.

Dept. : Physical Therapy Department for

Growth and Developmental Disorder in Children and its

Surgery.

Supervisors : Amira Mohamed El Tohamy,

Kamal El-Sayed Shoukry, Nagui Sobhi Nassif, Amany Moussa

Mohamed Moussa.

Degree : Doctoral.

Year : 2008.

Abstract :

The purpose of this study was to standardize an isokinetic testing protocol for quadriceps and hamstrings in children who are typically developing, and to establish reference data of isokinetic strength measurement of both muscles by gender and age. Three hundred and sixty child (180 males and 180 females), from 7 to 12 years old participated in this study. They were classified according to their ages into six groups of equal number and were assessed using Biodex isokinetic dynamometer at two angular velocities (60 and 180°/sec.) for dominant and non domoinant sides. The results revealed that there is a significant effect of angular velocity, gender and age on strength measurement in both groups. There is no significant difference between dominant and non dominant sides in most of the measured variables.

Key words : Normative- Isokinetic- Knee-

Children.

القيم الطبيعية للأداء الأيزوكينتيكي للركبة عند : Arabic Title Page

الأطفال الأصحاء في سن المدرسة.

Author : Shorok Ahmed Wagdi Awad El-

Shennawy.

Title : Cognition and standing balance

interaction in children with

idiopathic epilepsy.

Dept. : Physical Therapy Department for

Growth and Developmental Disorder in Children and its

Surgery.

Supervisors : Amira El Tohamy, Kamal El-Sayed

Shoukry, Lobna Mansour, Ola

Omar Shahine.

Degree : Doctoral.

Year : 2008.

Abstract :

The purpose of this study was to investigate whether there is an interaction between cognition and balance in children with idiopathic generalized epilepsy. Thirty children with epilepsy, their age ranged from 10 to 12 years participated in this study. They were evaluated using Rehacom System and Biodex Stability System before and after the treatment programs. Subjects were classified randomly into two groups of equal number. Group A; received attention and concentration training on Rehacom System, whereas group B; received standing balance training on Biodex Stability System. The results of this study revealed statistically highly significant improvement in nearly all of the measuring variables of both groups in favor of group B. From the obtained results of this study, it can be concluded that, there is an interaction between cognition and balance in children with idiopathic generalized epilepsy.

Key words : Cognition, Balance, Idiopathic

generalized epilepsy.

التداخل بين الأداء المعرفى وآلاتزان من وضع : Arabic Title Page

الوقوف عند الأطفال المصابين بالصرع ذاتي

الإعتلال.

Department of Basic Science

Author : Amira Hussin Mohammed Draz.

Title : Effect of plyometric training on

shoulder proprioception in athletic

subjects.

Dept. : Department of Basic Science.

Supervisors : Fatma Sedek Amin, Mohamed

hussein El Gendi, Ragia

Mohammed kamel.

Degree : Doctoral.

Year : 2009.

Abstract :

Purpose: The purpose of the study was to investigate the effect of the plyometric training program on shoulder proprioception in healthy upper extremity athletes. Materials and methods: Fifty players were included at the starting of the study. They were divided into two groups; Group A (Experimental) which consisted of 25 players with mean value of age were 14.84±0.68 years, mean values of body weight were 69.4±6.72Kg mean value of height were 171.72±7.94cm, mean value of body mass index(BMI) were 23.56±2.07Kg/m2, and actively participated in the suggested plyometric training program in addition to their training program. Group B (Control) which consisted of 25players With mean value of age were 15.08±1.07 years, The mean value of body weight were 70.16±5.03Kg, the mean value of height were 173.16±4.78cm, the mean value of body mass index(BMI) were 23.39±1.31Kg/m2.and actively participated in the traditional training program of their team. Measurement of their proprioception accuracy repositioning (active and passive tests) was conducted before and after the training period by using the Biodex Medical System III. Both groups were trained for successive six weeks in the preparatory period. Results: There was a significant difference due to the effect of plyometric training on proprioception accuracy level . Conclusion: there is an effect of plyometric training on shoulder proprioception in upper extremity athletes.

Key words : Shoulder joint, Proprioception,

Plyometric training.

Arabic Title Page : تأثير التدريبات متعددة القياسات على المستقبلات

الحسيه العميقه لمفصل الكتف في الأشخاص

الرياضيين.

Author : Amr Abdel Samad Abdel Monem.

Title : Effect of modified aerobic exercise

program and personality on plasma leptin level in abdominal obese

subjects.

Dept. : Department of Basic Science.

Supervisors : Mohsen El Sayyad, Awatif Labib,

Fawzy Halawa.

Degree : Doctoral.

Year : 2009.

Abstract :

Leptin is a hormone secreted by adipose tissue cells to regulate body weight The presence of excess fat in the abdomen, out of proportion to total body fat, is an independent predictor of risk factors and morbidity Many studies have been directed towards examining the effects of aerobic activity on serum Leptin utilizing continuous running regimens. The purpose: of this study was to investigate the effects modified aerobic exercise and personality on plasma Leptin level in abdominal obese subjects. Subjects: sixty healthy 4 male and 56 female subjects with mean age (29.95 + 6.84) years, weight (101.7 + 12.45) Kg and height (163.52 + 6.49)cm assigned randomly to three equal groups. Methods: plasma Leptin level, weight, abdominal circumference and BMI were measured pre-treatment and twelve weeks post-treatment. The independent variable was the modified aerobic exercise and personality. Three groups were included 2 study groups (Group I slow aerobic exercise group, Group II fast aerobic exercise group) and control group. One way analysis of variance (ANOVA) was used to determine significant differences in data between and among the groups. Results: The effect of diet and slow aerobic exercise program decrease plasma Leptin level more than the effect of diet and fast aerobic exercise program in abdominal obese subjects.2- The effect of personality as in going and out going on behavior of subjects during the study in relation to variables Weight, BMI, Abdominal circumference, and Leptin their were no effect of personality. Discussion and conclusion: Diet and the modified aerobic exercise (especially slow aerobic exercise program) decrease plasma Leptin level more than the effect of diet and fast aerobic exercise program in abdominal obese subjects. Also the effect of personality as in going and out going on behavior of subjects during the study in relation to variables has minimal effect but not significant.

Key words : Aerobic exercise, plasma Leptin

level, obesity, BMI.

Arabic Title Page : الهوائية المعدل التمرينات الهوائية المعدل

والشخصية على مستوى اللبتين في الدم لدى الأشخاص الدناء

Author : Amr Saad Eldeen Mohamed

Shalaby.

Title : Validity and reliability of modified

median-to-ulnar sensory nerve

action potential ratio test.

Dept. : Department of Basic Science.

Supervisors : Omaima Mohamed Ali Kattabei,

Fatma Sedeek Amin, Amal Fawzy

Ahmed.

Degree : Doctoral. Year : 2009.

Abstract :

Background: Electrodiagnosis is a multitude of tests that are used to confirm different peripheral neuropathic lesions. Carpal tunnel syndrome (CTS) is the most common troublesome syndrome that requires electrodiagnostic referral. Several electrodiagnostic tests have been proposed with wide range of sensitivity and specificity. The Median-to-Ulnar Sensory Nerve Action Potential Ratio test (MUSNAP) is one of these tests that has been shown to have low sensitivity to CTS. The purposes of the study: 1) to determine normal values of the modified MUSNAP ratio test concerning all median digital branches versus all ulnar digital branches, 2) Determine correlation between modified MUSNAP ratio test and the Median-to-Ulnar Sensory Latency Difference test (MU SLD) and 3) Calculate the specificity of the modified MUSNAP ratio test. *Materials and Methods:* 53 apparently healthy subjects were recruited in this study with mean age of 19.26 ± 1.38 years. A TOENNIES neuroscreen plus system was used for application of the modified MUSNAP ratio test. *Results:* the Median-to-Ulnar Sensory Nerve Action Potential (MUSNAP) ratios were; M1/U4= 2.12, M2/U4= 2.17, M3/U4= 2.29, M4/U4= 1.59, M1/U5= 1.46, M2/U5= 1.48, M3/U5= 1.63 and M4/U5= 1.08. The 5th to 95th percentile range was 0.56-4.00. Comparing dominant values with the non-dominant values showed that there were no significant difference between latencies and MUSNAP ratios of dominant and non-dominant hands. There were no significant differences between amplitudes of both hands except for the third digit which showed significant difference between both hands. The modified MUSNAP ratio test had poor correlation with the MU SLD test. Specificity of the MUSNAP ratio test was 95.52%. *Conclusion:* it is concluded that: 1) The validity of the modified MUSNAP ratio test is not high enough to be used as diagnostic test for CTS, 2) The amplitude of the SNAP is the first parameter affected in excessive functional hand use, 3) Amplitudes of the fourth digit (both median and ulnar) are to be excluded from MUSNAP ratios calculations, as the median-to-ulnar sensory representation ratio of the fourth digit is not the same for all subjects and exclusive supply of this digit by either nerve is not uncommon and 4) The modified MUSNAP was 95.52% specific which considered as accepted level of specificity to rule out the presence of nerve compression in normal subjects.

Key words : Carpal tunnel syndrome, modified

median-to-ulnar sensory nerve.

الصلاحية و المصداقية في إستخدام الجهد الفعال : Arabic Title Page

المعدل للعصب الأوسط والزندى كإختبار نسبى.

Author : Dalia Mohamed Mohamed Mosaad.
Title : Influence of school bag carriage on

gait and posture.

Dept. : Department of Basic Science.

Supervisors : Mohsen El Siead, Samy Abel

Samad, Sahar Mohamed Adel.

Degree : Doctoral.

Year : 2009.

Abstract :

This study investigated the effect of the ordinary backpack and the double bag style on the neck posture and kinetic measures of the children. Thirty subjects passed by two tests. Static test while child stands. Second, the dynamic test, to take GRF. There was a statistically significant increase in the cranio - vertebral angle. There was significant increase in all GRF when carrying the ordinary bag in relation to no load.

Key words : Backpack, Children, Neck posture,

Ground reaction force.

تأثير حمل حقيبة المدرسة على المشية وقوام: Arabic Title Page

الجسم.

Author : Amir Nazih Wadee Mawad.

Title : Influence of low level laser therapy

on delayed muscle soreness after eccentric exercise and neuromuscular electrical

stimulation.

Dept. : Department of Basic Science.

Supervisors : Fatma Seddek Amin, Maher

Ahmed El-Keblawy, Fawzy Ahmed

Halawa.

Degree : Doctoral.

Year : 2009.

Abstract :

Objective: The current study was conducted to investigate the influence of laser on delayed muscle soreness after eccentric exercise or neuromuscular electrical stimulation. Methodology: Ninety volunteers (mean age18.92+1.5) were randomly assigned into three equal groups. Group I performed eccentric exercise, group II received electrical stimulation, and group III control group. Laser was conducted by 7 Jouls for 10 minutes on dominant quadriceps muscle in group I and group II while sham laser was conducted to group III. The maximum voluntary contraction (MVC), pain, and Creatin phophokinase (CK) were evaluated pre, post immediately and after 48 hours. Results: there were insignificant changes in group I (MVC decreased 3.5%, Pain increased 4.87%, and CK increased 1.55%) while in group II (0.68%, 7.96%, 4.76%). Highly significant changes were noticed in group III, the control group for group I (MVC decreased 18.74%, Pain increased 35.21%, and CK increased 59.72%) while in the control group for group II were (19.36%, 47.74%, 54.91%) respectively. Conclusion: laser could attenuate muscle soreness following eccentric exercise and electric stimulation.

Key words : Low Level Laser Therapy- Delayed

Muscle Soreness- Eccentric Exercise- Neuromuscular Electrical

Stimulation.

Arabic Title Page : كفاءة الليزرِ منخفضِ الشده على التعب العضلي

المتأخر الناتج عن التمرينات السالبة الأتجاه

والتنبيه العصبي العضلي.

Department of Biomechanics

Author : Amira Abdallah Abd El Megeid

Abdallah.

Title : Effects of different inclinations of

laterally wedged insoles on gait mechanics in patients with medial

knee osteoarthritis.

Dept. : Department of Biomechanics.

Supervisors : Ahmed Hassan Hussein, Ghada

Mohamed El-Hafez, Ahmed

Waheed Mustafa.

Degree : Doctoral. Year : 2009.

Abstract :

Laterally wedged insoles have recently attracted attention as a conservative intervention for treating medial compartment knee osteoarthritis. The purpose of the study was to examine the effects of different insole inclinations on the frontal plane hip, knee, subtalar moments, and pelvic alignment. The tested insole inclinations were 0, 6, and 11 degrees. The 0° non-wedged insole was used bilaterally '0°x0°' as a control. Whereas, each of the 6° and 11° laterally wedged insoles was used once unilaterally with a 0° non-wedged insole used on the un-tested limb '6°x0° and 11°x1° and another bilaterally '6°x6° and 11°x11°'. Kinetic and kinematic gait parameters were collected from 33 patients with primary medial compartment knee osteoarthritis (mean age $55.03 \pm (7.52)$), mean height $1.57 \text{ m} \pm (0.06)$, and mean weight $83.61 \text{ kg} \pm (0.06) \pm (0.06)$ (8.81)). The dependent variables were compared among the five tested insole conditions using MANOVA and to magnify the effect of subtalar moments direction, two repeated measures ANOVAs were used with the initial alpha level set at 0.05 with subsequent Bonferroni adjustments. Additionally, correlations were conducted to study the relationships among lower limb joint moments. Findings revealed insignificant differences in the tested dependent variables among the five tested insole conditions. However, considering the direction of subtalar moments, there was a statistically significant increase in the external subtalar eversion moment between each of the '6°x0°, 6°x6°, 11°x0°, and 11°x11°' vs the '0°x0°' insoles (p = 0.000) in patients showing consistent subtalar eversion moment. Similarly, there was a statistically significant decrease in the external subtalar inversion moment between the '11x11' vs the '0x0' insoles (p = 0.014) in patients showing consistent subtalar inversion moment. Finally, there were insignificant weak negative (r = -0.059, p = 0.583) and insignificant weak positive (r = 0.203, p = 0.203) correlations between the first peak knee adduction moment and each of the external subtalar eversion and inversion moments in patients with consistent subtalar eversion and inversion moments respectively. These correlations may support the proposed mechanism of insoles being able to successfully shift the ground reaction force vector laterally which may be responsible for reducing the external knee adduction moment.

Key words: Laterally wedged insoles, Medial knee osteoarthritis, Frontal plane moments.

تاتير زوايا الميل المختلفة للنعال الباطنة دات : Arabic Title Page الأسافين الخارجية على ميكانيكا المشي في مرضى الالتهاب العظمى المقصلي الداخلي

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Physical Therapy
Department for
Cardiopulmonary
Disorder and
Geriatrics and its
Surgery

Author : Basant Hamdy El-Refay.

Title : Bone mineral density response to

whole body vibration versus resistive training in postmenopausal

women.

Dept. : Physical Therapy Department for

Cardiopulmonary Disorder and

Geriatrics and its Surgery.

Supervisors : Zeinab Mohammed Helmy,

Moshera Erfan Zaki.

Degree : Doctoral. Year : 2009.

Abstract :

The aim of this study was to compare between the effectiveness of whole body vibration (WBV) and resistive training on bone mineral density (BMD) and anthropometry variables in postmenopausal women. Forty postmenopausal women participated in this study, their ages ranged from 50-65 years. Twenty women were trained by WBV and the other twenty resistive training. The results of this study women participated in revealed that WBV group exhibited significant increase in BMD, bone mineral content (BMC) of greater trochanter and wards triangle. BMD and BMC of femoral neck increased non significantly while BMD and BMC of lumbar spine decreased non significantly. The resistive exercise group exhibited significant increase in BMD, BMC of wards triangle and lumbar spine with non significant increase of BMD, BMC of femoral neck and greater trochanter. Both groups exhibited significant decrease in anthropometric parameters except for waist hip ratio in WBV group showed non significant decrease. There was not a statistically significant difference between groups except for BMD and BMC of lumbar spine.

Key words : Whole body vibration, Resistive training, Postmenopause women.

استجابة كثافة العظام للاهتزاز الكامل للجسم: Arabic Title Page

مقابل تدريب المقاومة للسيدات بعد انقطاع

الطمث

Author : Fatma Abo El-Magd Mohamed

Hamed.

Title : Exercise capacity and ventilatory

function response to ergometer

training in asthmatic children.

Dept. : Physical Therapy Department for

Cardiopulmonary Disorder and

Geriatrics and its Surgery.

Supervisors : Zeinab Mohamed Helmy, Nevine

El-Said El-Helaly, Akram Abdel-

Aziz Sayed.

Degree : Doctoral.

Year : 2009.

Abstract:

The aim of this study was to investigate the effect of ergometer training on exercise capacity and ventilatory function in asthmatic children. Forty asthmatic children (21 boys and 19 girls) were participated in the study, their age ranged from 6-15 years. They were divided randomly into two groups. The study group comprised of 20 children who received ergometer training at 50-70% of their maximum heart rate three times per week for three months while the control group received no training. The results showed elevation of expiratory flow rate parameters (forced expiratory volume in one second, peak expiratory flow, forced mid expiratory flow) forced vital capacity and maximum voluntary ventilation and also the aerobic capacity as measured by maximum oxygen consumption, anaerobic threshold and the maximum work significantly improved in the study group as compared to the control group.

Key words : asthma, children, ergometer

training.

إستجابة القدرة التمرينية و وظائف التهوية : Arabic Title Page

الرئوية للتمرينات الأورجومترية في الأطفال

المصابين بالربو الشعبى.

Author : Michael Banoub Sorour.

Title : Metabolic syndrome response to

walking training and low

carbohydrate diet in elderly.

Dept. : Physical Therapy Department for

Cardiopulmonary Disorder and

Geriatrics and its Surgery.

Supervisors : Nagwa M. Badr, Nargis A. Labib.

Degree : Doctoral. Year : 2009.

Abstract :

The purpose of this study was to determine the effect of walking training program combined with low carbohydrate diet on improving risk markers of the metabolic syndrome in elderly subjects. Subjects: forty elderly subjects considered as metabolic syndrome patients according to World Health Organization definition for metabolic syndrome participated in the study and were divided randomly into two equal groups (study group and control group). Procedure: all participants were assessed before an after the intervention, the study group received walking training program (three sessions per week) combined with low carbohydrate diet for eight weeks; the control group resumed their ordinary life style with no intervention. Results: There was a highly significant improvement of metabolic syndrome risk markers and aerobic fitness between pre and post assessment of study group. Conclusion: walking training program combined with low carbohydrate diet can be introduced as a safety and effective intervention to improve the metabolic syndrome risk markers in elderly subjects.

Key words : Metabolic Syndrome, Low

Carbohydrate Diet, Walking

Training, Elder.

استجابة الأعراض الأيضية لتدريبات المشي: Arabic Title Page

والتغذية قليلة الكربوهيدرات للمسنين.

Author : Nesreen Ghareb Mohamed

Mohamed El Nahas.

Title : Influence of treadmill exercise on

intraocular pressure in patients

with type 2 diabetes.

Dept. : Physical Therapy Department for

Cardiopulmonary Disorder and

Geriatrics and its Surgery.

Supervisors : Azza Fekry Ismail, Olfat Ahmed

Fawzy, Tamer Ismail Gawdat.

Degree : Doctoral.

Year : 2009.

Abstract :

The aim of the study was to investigate the influence of treadmill exercise on Intraocular pressure in patients with type 2 diabetes. Forty subjects were enrolled in this study, twenty diabetic patients who were the Gr.I – intervention group (15 females and 5 males), the other twenty were healthy subjects who act as a Gr.II -control group (11 females and 9 males), subjects were with age ranges between 35-60 years. Gr. I performed a supervised treadmill exercise program (3 sessions/week, 40 minutes/per session for 3- months) where blood pressure and intraocular pressure were measured before exercise, immediately after and 30 minutes after exercise. Both groups underwent measurement procedures for weight, blood glucose level, blood pressure and intraocular pressure at baseline, after 1-month, after 2-month and after 3- months. There were significant decline in blood glucose level, weight as well as intraocular pressure for Gr.I after training period than seen in Gr. II especially after 3- months. Conclusion; It was concluded that regular treadmill exercise was of great benefit to diabetic patients as it kept intraocular pressure within normal limits as to keep steady blood flow to retina as well as keeping blood glucose level within control.

Key words : Treadmill exercise, Diabetes,

Intraocular pressure.

Arabic Title Page : المشى المتحرك جهازسير المشى

علىالضغط الداخلي للعين لدى مرضى البوال

السكرى (النوع الثاني).

Physical Therapy Department for Obstetrics and Gynaecology and its Surgery

Author : Abeer Mohamed El Sayed El Deeb.
Title : Effect of whole body vibration on

walking pattern of postmenopausal

osteopenic women.

Dept. : Physical Therapy Department for

Obstetrics and Gynaecology and its

Surgery.

Supervisors : Salwa Mostafa El-Badry, Mohamed

Amr Mohamed Samy Mahmoud

Khodair.

Degree : Doctoral.

Year : 2009.

Abstract :

This study was conducted to determine changes in the gait of postmenopausal osteopenic women compared with normal counterparts and to show the effects of whole body vibration (WBV) on gait parameters as well as, bone mineral density (BMD). Fifteen postmenopausal women with normal BMD and fourteen osteopenic women were selected from Nasser Institute. Bone density was measured using DEXA and gait parameters were evaluated by Qualysis Gait Analysis System at baseline and after six months intervention. Results showed statistically significant differences (P<0.05) in maximum hip flexion angle, hip extensor moment, hip flexor moment, knee extensor moment, ankle planterflexor moment, 1st and 2nd peaks of vertical GRF of osteopenic women compared with their normal counterparts, while there was a non-significant difference in hip abductor moment (P>0.05). Also, results showed that WBV induces a significant increase (P<0.05) in hip flexor, hip abductor, knee extensor and ankle planterflexor moments, maximum hip flexion angle, 1st and 2nd peaks of GRF as well as, femoral neck BMD and, there was a highly significant increase (P<0.001) in hip extensor moment, while there was a non-significant change (P>0.05) in lumbar BMD and body mass index (BMI). It can be concluded that postmenopausal osteopenic women have less joint moments and less propulsion than their normal counterparts which may increase the risk of falling and feeling of fatigue. Also, it was found that WBV improves kinematics and kinetics characteristics (moments & vertical GRF) of the osteopenic women resulting in efficient walking and increasing hip BMD.

Key words : Osteopenia, WBV, Walking pattern, Motion analysis.

Arabic Title Page : تأثير الاهتزاز الكلي للجسم علي نمط المشي لدي

السيدات المصابات بوهن العظام بعد انقطاع

الطمث.

Physical Therapy
Department for
musculoskeletal
disorder and its
Surgery

Author : Mohamed Salah Eldien Mohamed.

Title : Two-way traction versus cervical

manipulation in treatment of

cervical spine disorders.

Dept. : Physical Therapy Department for

musculoskeletal disorder and its

Surgery.

Supervisors : Omaima Mohamed Ali Kattabei,

Amal Fawzy Ahmed, Alaa Abd El

Hakim Balbaa.

Degree : Doctoral.

Year : 2009.

Abstract :

Background: Neck disorders are common and disabling; they can affect physical and social function. Two-way cervical traction is considered a treatment of spinal disorders aimed to separate the vertebrae, restoring the normal curve and stretch the posterior neck muscle. Manipulation of the spine has been used in the treatment of patients with head and neck disorders, including neck pain and stiffness, muscle tension headache, and migraine. The purposes: The purpose of the study was to investigate and migraine. The purposes: The purpose of the study was to investigate the possible effect of the two-way cervical traction or the cervical manipulation in patient with cervical spine disorders (CSD). Subjects: Thirty patients (15 males and 15 females) with cervical spine disorders participated in this study with age ranged from 20 to 35 years with a mean (28.37± 3.16). The Patients reported of neck pain and restriction of cervical range of motion (CROM) and hadn't any positive neurological finding, surgery or stenosis. The patients were assigned into three groups. Group I: (two-way traction) Group II: (manipulation) and Group III (traditional treatment). Methods: CROM, Pain, neck functional activity and EMG activity of the upper fibers of trapezius were measured pre and post 6 weeks of treatment by CROM device. VAS. NDI and EMG post 6 weeks of treatment by CROM device, VAS, NDI and EMG respectively. Results: Two-way traction, cervical manipulation and traditional treatment had significantly increased Electromyographic activity, Cervical Range of Motion and decrease Neck Disability Index and Visual Analoge Scale. Cervical manipulation had a superior effect on increasing CROM in all ranges except extension, decreasing pain, functional disability more than two ways traction but in EMC activity the functional disability more than two-way traction but in EMG activity the effect of two-way traction was higher than manipulation and the effect of traditional treatment had the least effect. <u>Conclusion:</u> Cervical manipulation had more effect than two-way traction on increasing CROM, decreasing pain and functional disability while Two-way traction was more effective than manipulation in producing increasing EMG Activity. According to results, it was suggested that Cervical manipulation and two-way traction could be used individually or combined together that would have more beneficial effect for treatment of cervical spine disorders.

Key words : Two-Way Traction, Spinal

Manipulation, CROM, VAS, NDI, SEMG, Cervical Spine, Trapezius.

الشد ثنائي الاتجاه مقابل المعالجة اليدوية في : Arabic Title Page

علاج اضطرابات الفقرات العنقية.

Physical Therapy Department of Surgery

Author : Ahmed Fathy Abd El-Rahman

Samhan.

Title : Efficacy of pelvic-floor muscles re-

education program in postmicturition dribble and premature ejaculation control in patients with

erectile dysfunction.

Dept. : Physical Therapy Department for

Surgery.

Supervisors : Emam Hassan EL-Negmy, Zakaria

Mowafy Emam Moafy, Mohamed

Mohamed Farid Roiah.

Degree : Doctoral.

Year : 2009.

Abstract :

Purpose: to evaluate the efficacy of pelvic-floor muscles re-education program which include (PFMEs, biofeedback exercises, and electrical muscles stimulation of pelvic floor muscles) and life style changes in the treatment of patients with PMD and/or PE with ED. Subject: 60 male patients with age (25 to 65 years), were randomly assigned into 2 groups of equal number. Procedures: Group 1 received pelvic floor muscles reeducation program and instructions for life style changes. Patient in group 2 received given advice on lifestyle changes only as instructed in group 1. Results: significant improvement in group 1 and non-significant improvement in group 2.

Key words : Erectile Dysfunction, Post-

micturition Dribble, Premature Ejaculation, Biofeedback Exercises,

Electrical Stimulation.

Arabic Title Page : فاعلية برنامج إعادة تأهيل عضلات قاع الحوض

للتحكم في التنقيط بعد التبول وسرعة القذف

لمرضى الخلل الوظيفي الانتصابي.

Author : Emad El-Deen Abd El-Naiem

Sallam.

Title : Efficacy of transcutaneous

electrical nerve stimulation versus pulsed electromagnetic field therapy on chronic prostatitis/chronic pelvic pain

syndrome.

Dept. : Physical Therapy Department for

Surgery.

Supervisors : Zakaria Mowafy Emam Mowafy,

Ahmed Abd Alateef Moharum.

Degree : Doctoral.

Year : 2009.

Abstract :

Purpose: to evaluate the efficacy of the TENS and the PEMFT on prostatodynia and pelvic myoneuropathy. Methods of evaluation (Measurement of the serum cortisol level, ultrasonographic prostatic volume and prostatitis symptom severity index). Methods: 60 male patients with prostatodynia and pelvic myoneuropathy, were divided into three groups. Group (A) received the TENS plus the traditional physical therapy .Group (B) received the PEMFT plus the traditional physical therapy. Group (C) received the traditional physical therapy only, duration of treatment was 20 minutes, 3 times weekly for 2 months as a total period of treatment. Results:- Results showed that both the TENS and the PEMFT were effective, but the TENS application was more fruitful and beneficial in decreasing the prostatodynia and pelvic myoneuropathy. Conclusion: - both were effective in decreasing the prostatodynia and pelvic myoneuropathy, but TENS application is more advantageous.

Key words : Transcutaneous electrical nerve stimulation, Pulsed electromagnetic

field therapy, prostatodynia, pelvic myoneuropathy, serum cortisol level, ultrasonographic prostatic volume and prostatitis symptom

severity index.

فعالية التنبيه الكهربي العصبي عبر الجلد مقابل: Arabic Title Page

العلاج بالمجال الكهرومغناطيسي النابض في

إلتهاب البروستاتة المزمن.

Author : Ibrahim Mohamed Ibrahim.

Title : Electrophysiological responses to

neuromuscular stimulation in post

burn tarsal tunnel syndrome.

Dept. : Physical Therapy Department for

Surgery.

Supervisors : Emam Hassan El-Negamy, Akef

Abd-El-Halim Khowailed, Zakaria

Mowafy Emam Mowafy.

Degree : Doctoral. Year : 2009.

Abstract :

Purpose: determine the electrophysiological responses to neuromuscular stimulation in post burn tarsal tunnel syndrome. Methods of evaluation: (Measurement of the motor and sensory distal latencies of the medial and lateral plantar branches of the posterior tibial nerve). Subjects: sixty patients of both sexes with post burn tarsal tunnel syndrome were divided randomly into two groups of equal numbers 30 patients. Group (A) received the neuromuscular electrical stimulation plus the traditional physical therapy Group (B) received the placebo neuromuscular electrical stimulation plus the traditional physical therapy program, duration of stimulation was 20 minutes, every other day for 6 weeks as a total period of treatment. Results: No significant difference was recorded between the distal latency of the motor and sensory fibers of the tibial nerve was recorded between the two groups before treatment while significant difference was recorded after the treatment in favour of patients in group A as the distal latency was significantly decreased. The results suggest that the neuromuscular electrical stimulation is effective in decreasing the prolonged motor and sensory distal latencies of the medial and lateral branches of the tibial nerve Conclusion: It can be concluded that neuromuscular electrical stimulation is effective in treatment of post burn tarsal tunnel syndrome which can be explained by its depressor effects in decreasing the dominant sympathetic tone in burned patients, decreasing the reflex muscle spasm, increasing the peripheral circulation, decreasing oedema and inflammation, relieving the compressive ischaemic pain and improving the nerve functions.

Key words : Neuromuscular electrical

stimulation, post burn Tarsal, electrophysiological response tunnel

syndrome.

Arabic Title Page : الاستجابات الكهروفسيولوجية للتنبيه العصبي

العضلى لظاهرة نفق العظم الكاحلى فيما بعد

لحروق.

Author : Intsar salim Abd El-Aziz Waked.

Title : Efficacy of betamethasone

dipropionate phonophoresis in the

treatment of atopic dermatitis.

Dept. : Physical Therapy Department for

Surgery.

Supervisors : Adel Abd EL-Hamied Nossier,

Zeinab Mohamed El- Khouly.

Degree : Doctoral.

Year : 2009.

Abstract :

Atopic dermatitis is a common, inflammatory skin condition that can compromise quality of life. It is a discouraging, frustrating and expensive disease. The chronic recurring nature of the disorder, coupled with the frequent need for long-term treatments require the use of therapies that are simple, effective, safe and inexpensive. The main aim of this study was to evaluate the efficacy of 0.05% betamethasone dipropionate phonophoresis approach as a physical therapy modality in the treatment of atopic dermatitis. Design of the study: Sixty patients with atopic dermatitis were selected to participate in the present study. Their ages ranged from 15 to 30 years. Selection of the sample, evaluation and treatment procedures were performed in El-Mataria Teaching Hospital. The sample was selected from the Dermatology Clinic. The measurements were done before the period of the study and after one month of treatment for all groups by using Ulrasonography and SCORAD score. The pretreatment results of the present study revealed no significant difference between the mean values of thickness of skin and SCORAD score of three groups. The post - treatment results of this study showed reduction in the thickness of skin and SCORAD score after the treatment for Group (A), (B) and (C) with a percentage of 41.8%, 39.6%, 23.4% respectively for the thickness of skin and 74.9%, 73.6%, 46% respectively for SCORAD.Also the post - treatment results of the present study revealed highly significant difference of the mean values of thickness of skin and SCORAD score between three groups. The results of the current study revealed no significant difference between the continuous and pulsed phonophoresis groups after the treatment for both thicknesses of skin and SCORAD score. The results of the current study supported by enormous number of scientific research, It could be concluded that, betamethasone dipropionate phonophoresis is considered as a beneficial therapeutic modality to treat atopic dermatitis patients.

Key words : Dermatology, Betamethasone

Dipropionate, phonophoresis.

فاعلية إنتقال ألبيتاميثازون ديبروبايونيت : Arabic Title Page

بالموجات فوق الصوتية في علاج الالتهاب الجلدي مفرط الحساسية.

Author : Nermeen Mohamed Abd El-

Haleem.

Title : Efficacy of lidocaine iontophoresis

for topical anesthesia before

dermatological procedures.

Dept. : Physical Therapy Department for

Surgery.

Supervisors : Adel Abdel Hamid Nossir, Said

Zaki Salem.

Degree : Doctoral.

Year : 2009.

Abstract :

Purpose: to evaluate the efficacy lidocaine iontophoresis for topical anesthesia before dermatological procedures .Subject: 90 patients of both sexes (45 male and 45 female) with age (12 to 36 years), were randomly assigned into 3 groups of equal number. Procedures: Group 1 received iontophoretic treatment with 2% lidocaine for 10 to 15 min, group 2 received EMLA cream for at least 90 min and group 3 received iontophoretic treatment with an identical saline solution for 10 to 15 mins. Results: significant improvement in group 1 and group 2, and non-significant improvement in group 3. It could be concluded that the lidocaine iontophoresis was safe, effective, and non-invasive maneuver.

Key words : lidocaine, iontophoresis, topical

anesthesia and EMLA cream.

فاعلية الليدوكايين في التخدير الموضعي قبل: Arabic Title Page

الإجراءات الجلدية عن طريق انتقال الأيونات

بالكهرباء.

Author : Noha Fekry Mahmoud.

Title : Efficacy of ultrasound versus high

voltage current on healing rate of

leg venous ulcers.

Dept. : Physical Therapy Department for

Surgery.

Supervisors : Adel Abdel Hamed Nossier, Wafaa

Hussein Borhan, Mohamed Hosni

Ahmed.

Degree : Doctoral. Year : 2009.

Abstract :

The aim of this study was to compare between two widely used modalities in physical therapy; therapeutic ultrasound (TUS) and High voltage pulsed galvanic electrical stimulation (HVPG), in the treatment of chronic leg venous ulcer. Forty two patients were chosen from surgery and vascular surgery clinics. They age ranged from 35 to 50 years and were divided into three groups all received the same conservative treatment: the 1st is the control group GI (14 patients; 8 males and 6 females), the 2nd is the ultrasound group GII (15 patients; 10 males and 5 females, received a dose of frequency: 3MHz, intensity 0.5 w/cm², 20% duty cycle, three times/week for four weeks, and duration according to the ulcer size), and the 3rd is the electrical stimulation group GIII (13 patients; 8 males and 5 females, received pulse frequency: 100 Hz, pulse duration: 100 µsec, Peak intensity: 150 Volt, Duration: 45 minutes, three times/week for four weeks). The ulcers measures (wound surface area, volume, greatest length, greatest width, circumference, and Gilman index) were taken before and one month after treatment. Data analysis showed that there was a significant difference in the study groups compared to the control groups in all parameters. Conclusion: Both TUS and HVPC can be used to accelerate wound healing However the first caused more significant improvement in wound volume (depth) while the second caused better results regarding surface area.

Key words : Ultrasound, High voltage pulsed

current, Venous ulcer, Gilman

index.

فعالية الموجات فوق الصوتية مقابل التيار عالي: Arabic Title Page

الفولتية على معدل التئام قرح الساق الوريدية.

Author : Samah Hosney Nagib.

Title : Efficacy of ozone therapy on

chronic arm lymphedema following radiotherapy for breast cancer.

Dept. : Physical Therapy Department for

Surgery.

Supervisors : Wafaa Hussein Borhan, Mohga

Adel Samy.

Degree : Doctoral.

Year : 2009.

Abstract :

The purpose of this study was to investigate the efficacy of ozone therapy administration in lymphedema after radiotherapy for breast cancer. Subjects: Sixty female had upper extremity lymphedema following radiotherapy for treatment of breast cancer . They ranged in age from 40 to 60 years. They were classified randomly into two groups of equal number. Study group: thirty patients were received ozone therapy plus standard physical therapy protocol, and control group: in which, thirty patients were received standard physical therapy protocol only. **Procedure**: all patients were assessed before treatment program by using Doppler ultrasonography. Lymphedema volumes were assessed for patients before and after treatment by using calculated method and volumetric measurement. The results revealed a significant improvement (P<0.05) in all measured lymphedema of upper limb pre treatment and post 3 months of treatment in both study and control groups. But the differences volumes post treatment between the affected and unaffected limbs in study group were less than that in control group. Conclusion: It could be concluded that, administration of ozone therapy plus the standard physical therapy program contribute in controlling lymphedema.

Key words : Breast cancer, Lymphedema,

Ozone, Radiotherapy.

فاعلية العلاج بالاوزون على الورم الليمفاوى : Arabic Title Page

المزمن بالذراع عقب العلاج الاشعاعي لسرطان

الثدى.

Physical Therapy
Department for
Neuromuscular and
Neurosurgical
Disorder and its
Surgery

Author : Amir Abdel-Raouf Fadl El-Fiky.

Title : Efficacy of dual-task balance

training in stroke patients with

balance impairments.

Dept. : Physical Therapy Department for

Neuromuscular and Neurosurgical

Disorder and its Surgery.

Supervisors : Nahed Ahmed Salem, Abd El-

Moez Abd El-Aziz El-Gendy, Hoda Mohamed Zakaria Zaki.

Degree : Doctoral.

Year : 2009.

Abstract :

The purpose of this study was to determine the efficacy of dual-task balance training program on balance problems in stroke patients. Forty stroke patients participated in this study. All of them were assigned into study group. All subjects were assessed for; the dynamic standing balance, functional balance activities, and mental abilities. These measurements were recorded two times during the period of the study; pre-treatment and post treatment. All the patients received dual-task balance training program. The program was conducted two times/ week for six weeks. The results of this study revealed statistically highly significant improvement in all variables of the study group. From the obtained results of this study, it can be concluded that dual-task balance training is beneficial program that can be used to improve the functional balance activities in stroke patients (mainly elders).

Key words : Stroke, Balance, Cognition,

Dual, Task.

فاعلية تمارين الاتزان ثنائية المهام في مرضى : Arabic Title Page

السكتة الدماغية ذوى مشاكل الاتزان.

Author : Mohamed Fathi Ramadan El-

Sultan.

Title : Functional outcome of pulsed

magnetic stimulation in spastic

paraplegic patients.

Dept. : Physical Therapy Department for

Neuromuscular and Neurosurgical

Disorder and its Surgery.

Supervisors : Nawal Abou Shady, Forayssa

Talaat.

Degree : Doctoral.

Year : 2009.

Abstract :

Back ground: The purpose of this study was to investigate the effect of Pulsed Magnetic Stimulation on Functional Outcome of Paraplegic Patients. Thirty paraplegic patients were selected randomly. Subjects in the study received the pulsed magnetic stimulation in addition to the traditional physical therapy program (stretching, strengthening, balance and weight bearing). The following parameters include functional activities of daily living (Barthel index), EMG H/M Ratio and amount of Serotonin in the serum of the blood were measured before and after four weeks of treatment program. Results: There was a significant improvement that occurred after treatment, regarding the clinical, functional, and biochemistry of the blood. According to the statistical analysis, the pulsed magnetic stimulation with a frequency 12-25Hz, 40-100% intensity and 20 minutes is considered very effective in rehabilitation of spastic paraplegic patients.

Key words : Spastic paraplegia, Functional

Activities, EMG H/M ratio, Pulsed magnetic stimulation and

Serotonin.

النتائج الوظيفية للتنبيه المغناطيسي النابض في: Arabic Title Page

مرضى الشلل النصفى السفلى التشنجي.

Physical Therapy
Department for
Growth and
Developmental
Disorder in Children
and its Surgery

Author : Ehab Anwar Mohamed Hafez.

Title : Decision making for spasticity

management in diplegic children.

Dept. : Physical Therapy Department for

Growth and Developmental Disorder in Children and its

Surgery.

Supervisors : Kamal El-Sayed Shoukry,

Mohamed Tawfik, Tarek Omar,

Hassan El-Barbary.

Degree : Doctoral.

Year : 2009.

Abstract :

The purpose of this study was to evaluate outcome measures of different rehabilitation strategies for diplegic children. Forty one spastic diplegic children ranged in age from 3 to 7 years participated in this study. They were classified according to their age, severity and history of rehabilitation into 3 groups. GMFM was used to measure functional changes in standing and walking and Pro – Reflex 3-D system to measure gait parameters. Each group was showed 3 times reading: before trial, 2 months post and 6 months post treatment. A significant correlation was noted mainly among each group after long term of rehabilitation.

Key words : Diplegia, Spasticity, Decision

making.

Arabic Title Page : الاطفال عند العضلية عند الاطفال

ذوى الشلل التقلصي.

Author : Inas Adep Sorval Daud.

Title : Influence of cognitive training on

kinematics of the upper limb in

spastic hemiplegic children.

Dept. : Physical Therapy Department for

Growth and Developmental Disorder in Children and its

Surgery.

Supervisors : Faten Hassan Abdelaziem, Kamelia

Saad Abdelhamid.

Degree : Doctoral. Year : 2009.

Abstract :

The purpose of this study was to investigate the influence of cognitive (attention and concentration training) combined with especially selected exercise program on kinematic parameters and function of the upper limb, in hemiplegic cerebral palsied children. Sixty hemiplegic cerebral palsied children (30 girls and 30 boys) ranging in age from six to eight years participated in this study. They were divided into two groups of equal numbers (control and study). The control group was treated by especially selected exercise program for reaching abilities, while the study group was received the same program given to the control group in addition to the cognitive (attention and concentration training), via Reha.Com system. Both groups received the traditional exercise program. Evaluation was carried out for each child individually before and after six months of application of different treatment programs; it included measurement of the kinematic parameters and function of upper limb during movement. Also each child evaluated for his attention and concentration parameters by Reha Com system. The results of the study after the suggested period of treatment revealed significant improvement in most of the measuring variables (p< 0.05) pre and post treatment in both groups with higher percentage of improvement of the study group. From the obtained results of this study, it can be concluded that, improvement in the study group may be attributed to the effect of cognitive training. So it can be considered a beneficial adjunct to the traditional line of treatment in habilitation of hemiplegic cerebral palsied children.

Key words : Cognitive training, Attention,

concentration, Hemiplegic cerebral

palsy, Kinematics.

Title Page : تأثير التدريب المعرفي على كينماتيكية الطرف :

العلوى عند الأطفال المصابين بالشلل النصفى

التقلصي.

Author : Magda Abdel Fattah Mohamed Ali

Moussa.

: Assessment of physical therapists' **Title**

> performance in general organization of teaching hospitals

and institutes.

: Physical Therapy Department for Dept.

> Growth **Developmental** and Disorder in Children and its

Surgery.

Supervisors : Hoda Abd ElAzim El Talawy,

Hatem Abd El Rahman Ahmed.

Degree : Doctoral.

Year 2009.

Abstract

This study was conducted to assess the performance of physical therapists at departments of Egyptian General Organization of Teaching Hospitals and Institutes (GOTHI) versus the standard of European Core Standards of Physiotherapy Practice in order to identify areas of weakness as well as areas of strength to improve the quality of physical therapy practice. Two audit tools of physiotherapy practice were used: Patient record questionnaire and Patient feedback questionnaire Subjects: 91 physical therapists working in studied hospitals and institutes are classified according to their years of experience into 5 groups: practitioner physical therapists, 3rd degree physical therapists, 2nd degree physical therapists, 1st degree physical therapists and consultant physical therapists. They are classified according to their level of education into 3 groups: Both sexes are represented in this study and they were treated with not less than 12 physical therapy sessions. The patient feedback audit measure those standards and criteria where the patient is best placed to judge conformance. Its aspects related to the way individuals are treated and the environment in which they are treated which is responsiveness. Result: Out of 91 physical therapists participated in this study; there is no recording of high performance. Moderate performance was observed among 9 physical therapists (9.9%). The rest of physical therapists 82 (90.1%) need to improve their performance. There is no significance difference in levels of performance among studied hospitals and institutes and as regard to physical therapists' sex. There is significance difference in levels of performance as regard to marital state, educational level and years of experience. The high level of performance was significantly related to married physical therapists, DPT and years of experience (where it was not related to increased years of experience). Physical therapists consultants were higher in their total scores than other rank groups. As related to patient feedback questionnaire, there is no significance different in patients' level of responsiveness according to their ages, sex and educational level and whether the patient is inpatient and outpatient. As regard to responsiveness domains, good responsiveness domain of "dignity", "prompt attention, and "Clear communication" and high level of satisfaction. Poor responsiveness domain of "autonomy", "confidentiality "Choice of Care Provider".

: Physical therapist performance. **Key words**

تقييم أداء أخصائى العلاج الطبيعي في الهيئه العامة للمستشفيات و المعاهد التعليمية. **Arabic Title Page**

Author : Marwa Mohamed Ibrahim Hafez.

Title : Response of aerobic capacity to

treadmill versus bicycle ergometer in Juvenile rheumatoid arthritis.

Dept. : Physical Therapy Department for

Growth and Developmental Disorder in Children and its

Surgery.

Supervisors : Elham El-Sayed Salem, Hala Salah

El- Din Mohamed Talaat.

Degree : Doctoral.

Year : 2009.

Abstract :

The study was conducted for 3 months on thirty juvenile rheumatoid arthritis female patients; ranging in age from 11 to 16 years who were classified randomly into two groups of equal number (A and B). Group A received selected physical therapy program in addition to treadmill training, while group B received the same program and bicycle ergometer instead. The statistical analyses revealed significant differences in aerobic capacity in both groups in favor of the group A by 22% and also revealed that there is a significant positive correlation exists in aerobic capacity with body weight and body surface area.

Key words : Juvenile rheumatoid arthritis,

aerobic capacity, aerobic exercises, endurance exercises, exercise

testing.

استجابة السعة الهوائية لتمرينات المشى : Arabic Title Page

الألكترونى مقابل العجلة الثابتة عند الأطفال ذوى

الروماتويد المفصلى.

Author : Mohamed Abd El-Fattah Abd El-

Ghafar.

Title : Hyperbaric oxygen therapy versus

Cognitive training on hand function in hemiparetic cerebral palsied

children.

Dept. : Physical Therapy Department for

Growth and Developmental Disorder in Children and its

Surgery.

Supervisors : Faten Hassan Abd El Aziem,

Kamelia Saad Abd El Hamid.

Degree : Doctoral.

Year : 2009.

Abstract :

The purpose of this study was to compare between effect of combined hyperbaric oxygen therapy and selected hand function exercises program and combined cognitive training and selected hand function exercises program on improving fine motor skills in hemiparetic cerebral palsied children. Forty hemiparetic cerebral palsied children, ranged in age from 5 to 7 years old participated in this study. They were classified into two groups of equal number, (A and B). Group A received a specially designed physical therapy program; hand function rehabilitation program using tasks selected from Peabody Developmental Motor Scale-2 plus cognitive training, via Reha.Com system. Group B received the same designed physical therapy program; hand function rehabilitation program plus hyperbaric oxygen therapy. Evaluation was carried out for each child individually before, after one month and after six months of application of different treatment programs; it include assessment of fine motor development using Peabody Developmental Motor Scale and attention and concentration parameters by RehaCom system. The results of the study revealed non significant difference between the two groups before treatment. After one month of treatment no significant improvement of fine motor skills in both group, while there is significant differences in attention and concentration in group A. While after 6 months, there is significant improvement in the two groups. There was also significant difference between the two groups in favor of the group A.

Key words : hemiparetic cerebral palsy, Cognitive training, Attention,

concentration, hyperbaric oxygen therapy, RehaCom system, PDMS.

Arabic Title Page : العلاج بالأكسجين تحت الضغط مقابل التدريب

الإدراكي على وظائف اليد في الأطفال المصابين بالشلل النصفي التشنجي.

Author : Mohamed Ahmed Mahmoud Eid.

Title : Efficacy of pulsed magnetic field on

bone density in Juvenile

rheumatoid arthritis.

Dept. : Physical Therapy Department for

Growth and Developmental Disorder in Children and its

Surgery.

Supervisors : Faten Hassan Abd Elaziem, Hala

Salah El- Din Mohamed Talaat, Manal Salah El-Din Abdel-Wahab, Rokia Abd El-Shafy Soliman El-

Banna.

Degree : Doctoral. Year : 2009.

Abstract :

he purpose of this study was to examine the effect of low frequency and low intensity pulsed magnetic field (LFLIPMF) therapy on bone mineral density in children with polyarticular JRA. Thirty children with polyarticular JRA were assigned randomly into two groups of equal number. Each patient of the two groups was evaluated before and after six months of treatment by using dual energy x-ray absorptiometry (DEXA). The evaluation procedure involved measurement of bone mineral density of the femur, lumbar spine, arms and total body. Control group (n = 15) that were treated by the selected physical therapy program (stretching exercises and strengthening exercises in the form of bicycle ergometer and treadmill training) for one hour. Study group (n = 15) that were treated by the same exercise program given to the control group in addition to low frequency and low intensity pulsed magnetic field therapy with a frequency of 33 Hz, intensity of 20G for 30 minutes duration, three sessions were conducted per week (each session lasted one and half hour) for successive six months (24 weeks). Results: The collected data was processed and statistically analyzed using paired and unpaired t-test. The results showed a statistically significant improvement in all parameters in both control and study groups but still significant difference were recorded in favor of study group. Conclusion: it is possible to conclude that (LFLIPMF) is an effective modality in increasing bone mineral density in juvenile rheumatoid arthritis (JRA).

Key words : Osteoporosis, Magnetic Field,

Juvenile Rheumatoid Arthritis.

فاعلية المجال المغناطيسي المتقطع على كثافة : Arabic Title Page

العظام في الروماتويد المفصلي عند الأطفال.

Author : Shamekh Mohamed El-Shamy.

Title : Effect of hyperbaric oxygen

therapy on gross motor development in severely spastic

children.

Dept. : Physical Therapy Department for

Growth and Developmental Disorder in Children and its

Surgery.

Supervisors : Emam Hassan El-Negamy, Amina

Hendawy Salem.

Degree : Doctoral.

Year : 2009.

Abstract :

The purpose of this study was to evaluate the effect of hyperbaric oxygen therapy on gross motor development in severely spastic children. Forty spastic children, ranged in age from 3 to 5 years old participated in this study. They were classified randomly into two groups of equal number, (control and study). The control group received a specially designed physical therapy program. The study group received hyperbaric oxygen therapy in addition to the program given to the control group. Gross motor development were assessed before, after one month and after six months of application of the treatment program using Peabody Developmental Motor Scale (PDMS-2). The results of the study revealed no significant difference was recorded between the two groups before treatment. After one month of treatment no significant improvement was recorded in either group. While after 6 months, significant improvement was recorded in the two groups (control & study). There was also significant difference between the two groups in favor of the study group.

Key words : Cerebral palsy, Gross motor development, Hyperbaric oxygen

therapy.

Arabic Title Page : الضغط على النطور العلاج بالأكسجين تحت الضغط على النطور

الحركي الكبير في الأطفال ذو التشنج الشديد.