



4th International Conference and Expo on

NOVEL PHYSIOTHERAPIES

August 21-22, 2017 | Birmingham, UK

Posters

Novel Physio 2017

4th International Conference and Expo on

Novel Physiotherapies

August 21-22, 2017 | Birmingham, UK

Treatment of supraspinatus tendinopathy with Ergon® IASTM technique and neuromuscular control exercises: A case study

Konstantinos Fousekis, Konstantinos Mylonas and Pavlos Angelopoulos
Technological Educational Institute of Western Greece, Greece

Study Background: Supraspinatus tendinopathy is an important cause of pain and dysfunction in the adult shoulder. Traditional treatment for this type of injury includes traditional forms of treatment such as massage, stretching, electrotherapy and functional exercises. The aim of this case study was to evaluate the effectiveness of Ergon® IASTM Technique and shoulder neuromuscular control exercises in the treatment of supraspinatus tendinopathy.

Methods: A 50-year-old patient clinically diagnosed with supraspinatus tendinosis presented with significant a) pain on palpation b) pain during passive and active internal rotation and c) decrease in shoulder passive internal rotation. His treatment plan included 8 treatment sessions involving the application a) of Ergon® IASTM Technique over specific shoulder points and b) of targeted neuromuscular control exercises of the shoulder. Pain produced during passive internal rotation was evaluated with a visual analogue scale (VAS). The range of motion (ROM) for the internal rotation was measured with a goniometer. The patient was evaluated before, and at the 4th and 8th treatment session.

Results: The patient experienced a significant decrease in pain and an increase in shoulder ROM regarding internal rotation by both the 4th and 8th treatment session (figure1). More specifically, pain, as measured by VAS scale, was decreased from 8 and 7, respectively on the passive and active internal rotation of the shoulder, to 6 and 4 by the end of the 4th week and to 3 and 2 after the 8th treatment. Internal rotation ROM in the painful shoulder at 90° of abduction progressed from 60° at the baseline to 73° and 78° after 4th and 8th treatment, respectively.

Conclusions: This case study provides some evidence that Ergon® IASTM Technique in association with shoulder neuromuscular control exercises is an effective technique in the rehabilitation of the patients with supraspinatus tendinopathy.

Biography

Konstantinos Fousekis is an Associate Professor in Sports Physiotherapy at the Department of Physical Therapy, Technological Educational Institute of Western Greece. He is a Physiotherapist specializing in soft tissue mobilization techniques (IASTM). He has years of experience in treating musculoskeletal and sports injuries and is a Professional Physical Therapist for several professional soccer teams. His research interests deal with the assessment and rehabilitation of sports and musculoskeletal injuries using IASTM techniques. In cooperation with Konstantinos Mylonas, he created the ERGON® IASTM Technique as a basic treatment of painful and non-musculoskeletal disorders.

konfousekis@gmail.com

Notes:

4th International Conference and Expo on

Novel Physiotherapies

August 21-22, 2017 | Birmingham, UK

The acute effects of Ergon® IASTM therapy on superficial back myofascial chain flexibility: A comparative study regarding the site of the treatment

Konstantinos Fousekis, Eid Kristin, Tafas Enea and Konstantinos Mylonas
Technological Educational Institute of Western Greece, Greece

Study Background: The most significant myofascial chain of the human body that connects and controls the entire posterior surface of the body is the superficial back line (SBL). Part of the SBL is formed by the biceps femoris and erector spinae muscles bonded through the sacrotuberous ligament and lumbar fascia. Given that postural compensation patterns associated with SBL dysfunction include increased lordosis and hamstrings shortness, this study examined the acute effects of Ergon® IASTM Therapy (EIT) application on upper and lower part of SBL on hamstring flexibility.

Methods: Sixty college students were recruited from the Technological Educational Institute of Western Greece, who had hamstring flexibility deficiencies. The participants were randomly divided into three groups and received either a single, 10-minute myofascial EIT treatment of either the upper part-trunk- (n=20) or the lower part-the lower extremities- (n=20) of the SBL or served as control group (n=20). Hamstrings' flexibility was measured both before and after the therapy with the Sit and reach test. A one-way ANOVA was used to determine if there were differences in flexibility gains between the pre and post measurements between groups.

Results: Statistically significant differences ($f=29.11$, $p=0.00$) in flexibility benefits were found for the groups receiving Ergon® IASTM Therapy, regardless of the site of the treatment, compared with the control group. More specifically, SR values gains for both subgroups that received treatment of the upper (trunk) and lower (lower extremities) part of the SBL were significantly higher ($p=0.000$, respectively) than those of the control group. No significant difference was identified for the SR gains between the treatment groups ($P=1.00$).

Conclusions: The results of the present study suggest that Ergon® IASTM Therapy application on either the trunk or the lower extremities is an effective therapy for improving the SBL flexibility immediately following the therapy.

Biography

Konstantinos Fousekis is an Associate Professor in Sports Physiotherapy at the Department of Physical Therapy, Technological Educational Institute of Western Greece. He is a Physiotherapist specializing in soft tissue mobilization techniques (IASTM). He has years of experience in treating musculoskeletal and sports injuries and is a Professional Physical Therapist for several professional soccer teams. His research interests deals with the assessment and rehabilitation of sports and musculoskeletal injuries using IASTM techniques. In cooperation with Konstantinos Mylonas, he created the ERGON® IASTM Technique as a basic treatment of painful and non-musculoskeletal disorders.

konfousekis@gmail.com

Notes:

4th International Conference and Expo on

Novel Physiotherapies

August 21-22, 2017 | Birmingham, UK

Treatment of adhesive capsulitis with Ergon® IASTM technique and stretching exercises: A case study

Konstantinos Fousekis and **Konstantinos Mylonas**

Technological Educational Institute of Western Greece, Greece

Study Background: Adhesive capsulitis is a common condition involving significant shoulder pain and loss of range of motion attributed mainly to a combination of synovial inflammation and capsular fibrosis. Traditional treatment for this type of injury includes traditional forms of treatment such as massage, stretching, electrotherapy and active exercises. The aim of this case study was to evaluate the effectiveness of Ergon® IASTM Technique and shoulder stretching exercises in the treatment of adhesive capsulitis.

Methods: A 62-year-old patient clinically diagnosed with adhesive capsulitis presented with significant a) pain on palpation b) pain during shoulder flexion and internal rotation and c) decrease in shoulder passive flexion and internal rotation. His treatment plan included 8 treatment sessions involving the application a) of Ergon® IASTM Technique over specific shoulder points and b) of targeted stretching exercises of the shoulder. Pain produced during passive motion was evaluated with a visual analogue scale (VAS). The range of motion (ROM) for both shoulder flexion and internal rotation was measured with a goniometer. The patient was evaluated before, and at the 4th and 8th treatment session.

Results: The patient experienced a significant decrease in pain and an increase in shoulder ROM regarding internal rotation by both the 4th and 8th treatment session (Figure 1). More specifically, pain, as measured by VAS scale, was decreased from 5 and 7, respectively on the passive flexion and internal rotation of the shoulder, to 3 and 5 by the end of the 4th week and to 1 and 2 after the 8th treatment. Internal rotation ROM in the painful shoulder at 90° of abduction progressed from 50° at the baseline to 78° and 85° after 4th and 8th treatment, respectively.

Conclusions: This case study provides some evidence that Ergon® IASTM Technique in association with stretching exercises is an effective technique in the rehabilitation of the patients with adhesive capsulitis.

Biography

Konstantinos Fousekis is an Associate Professor in Sports Physiotherapy at the Department of Physical Therapy, Technological Educational Institute of Western Greece. He is a Physiotherapist specializing in soft tissue mobilization techniques (IASTM). He has years of experience in treating musculoskeletal and sports injuries and is a Professional Physical Therapist for several professional soccer teams. His research interests deal with the assessment and rehabilitation of sports and musculoskeletal injuries using IASTM techniques. In cooperation with Konstantinos Mylonas, he created the ERGON® IASTM Technique as a basic treatment of painful and non-musculoskeletal disorders.

konfousekis@gmail.com

Notes:



4th International Conference and Expo on

NOVEL PHYSIOTHERAPIES

August 21-22, 2017 | Birmingham, UK

e-Posters

Novel Physio 2017

4th International Conference and Expo on

Novel Physiotherapies

August 21-22, 2017 | Birmingham, UK

Comparison of the effectiveness of two physiotherapy programs for female patients with lumbar spine discopathy

Ewa Puszczalowska-Lizis¹, Paulina Dziedzic² and Sławomir Jandzis¹¹University of Rzeszow, Poland²Specialist Hospital in Jaslo, Poland

Statement of the Problem: Lower back pain is one of the most common problems in the human body related to the disturbances of motor organ's structure and function. They challenge contemporary physiotherapy which aims to reduce or, where possible, eliminate pain, restore fitness for everyday life, and prevent recurrences. The purpose of this study was to compare two physiotherapy programs in terms of lowering pain intensity, improvement of lumbar and thoracolumbar spine mobility, as well as functional ability in females with lumbar spine discopathy.

Methodology: The study included 100 women aged 45-50 with lumbar spine discopathy being improved in outpatient conditions. The patients were divided into two 50-person groups depending on the program used. The physiotherapy program for group I included kinesiotherapy, classic massage and interferential currents, and in group II: kinesiotherapy, classic massage and ultra-sound. The research tool was a numerical scale of pain intensity (NRS), Roland Morris Disability Questionnaire (RMDQ) and measurements of lumbar and thoracolumbar spine mobility. Wilcoxon and Mann-Whitney U tests were used for the analysis.

Findings: After completion of the physiotherapy, women in group I had significantly lower pain ($p=0.037$) and higher functional efficiency ($p=0.001$). The range of improvement, assessed by the difference in the results of study II and III, was significantly higher for group II women ($p=0.002$). One month after completion of therapeutic treatment, there were no statistically significant intergroup differences ($p=0.169$, $p=0.067$).

Conclusion & Significance: The use of interferential currents in physiotherapy of people with lumbar spine discopathy compared to ultrasound therapy allows for greater improvement in reducing pain intensity, lumbar and thoracolumbar spine mobility, as well as higher functional efficiency. The effectiveness of ultrasound is increasing over time since the end of therapy and only after one month in the case of both physiotherapy programs similar effects can be observed.

Biography

Ewa Puszczalowska-Lizis specializes in the treatment of adult and pediatric patients with congenital abnormalities, joint contractures and neuromuscular disorders. She has received her PhD from the University School of Physical Education in Cracow, Poland, in 2010. Her research interests focus on the development of vertebral column, changes in body posture in various developmental periods and effects of musculoskeletal disorders treatment. Problems of her research also consider the efficiency of the foot in static and dynamic conditions, frequency of deviations below the norm and variability in foot structure in different periods of ontogeny. She has published 1 book, 15 book chapters and more than 70 articles in peer-reviewed scientific journals.

ewalizis@poczta.onet.pl

Notes:

4th International Conference and Expo on

Novel Physiotherapies

August 21-22, 2017 | Birmingham, UK

Shape of sagittal plane spinal curvatures in prematurely born children at the start of school education

Katarzyna Walicka-Cupryś, Paweł Piwoński, Maciej Rachwał, Perenc Lidka, Justyna Drzał-Grabiec and Katarzyna Zajkiewicz
University of Rzeszów, Poland

Statement of the Problem: Uterine cavity is an ideal place for proper fetal development, therefore reduced duration of growth in this perfect environment leads to certain developmental disparities between preterm and full-term children. Most characteristically, children born prematurely present with poor muscle tone, and greater muscle tone in extensors than in flexors, contrary to normal physiological tonus observed in children born full-term. These factors may promote altered body posture, in particular, linked with the vertebral column, and they may contribute to incorrect development of anteroposterior spinal curvatures at a later time. Purpose of the study is assessment of anteroposterior spinal curvatures in children born prematurely.

Materials & Methods: The study was carried out in a group of 101 children, aged 6-7 years, with mean age of 6.63. The group of preterm children consisted of 50 subjects: 26 boys (52%), and 24 girls (48%). The 51 controls: 22 boys (41%) and 29 girls (59%), were randomly selected from a group of 200 full-term children, and matched for age and sex with the children in the study group. Criteria for inclusion in the study: guardians' and children's consent for participation in the study, lack of neurologic and orthopaedic disorders affecting body posture. The study group was birth before gestational age of 32 weeks; the control group was birth after 37 weeks of gestation. Basic anthropometric measurements were performed to assess body mass and height. Spinal curvatures were examined with mechanical inclinometer, in accordance with the method developed by Walicka-Cupryś and Drużbicki (Figure 1). Validity of the observed relationships was verified with adequate statistical tests: Student's t-test/Mann-Whitney U test, and Pearson's chi-squared test.

Results: The findings show no statistically significant differences in the inclination of the sacral bone, in thoracolumbar transition, and in the size of lumbar lordosis and thoracic kyphosis. Considerably smaller angles were observed in the inclination of the upper ($p=0.001$) and central ($p=0.000$) part of the thoracic spine in the preterm children.

Conclusions: Preterm birth does not affect the shape of anteroposterior spinal curvatures and does not correlate with the frequency of defects in the sagittal plane. However the factor is related to significantly smaller inclination of the upper and central part of the thoracic spine in comparison to full-term children.

Biography

Katarzyna Walicka-Cupryś has completed two university courses, and acquired MA degree in Physical Education and in Physiotherapy. She also completed Post-graduate courses in Management, i.e. HR Management, Management of Research and Development Projects as well as Executive Master of Business Administration. In her research, she focuses on problems connected with body posture and balance, and on consequences of spinal disorders and pelvic floor dysfunctions. So far she has authored or co-authored 53 publications in Polish and foreign periodicals; these include 18 chapters in reviewed monographs. She took active part in over 50 scientific conferences, where she received seven awards and distinctions for her presentations. Taking advantage of her management related competences, in 2012-2013 she held the position of the Deputy Director of Teaching Operations, at the Institute of Physiotherapy, and the Chair Person of the Podkarpackie Branch of Polish Physiotherapy Association. During 2009-2015, she coordinated two EU projects implemented at the University of Rzeszów, each amounting to millions of Polish zloty. Active in her profession since 2001, she has been sharing her knowledge and practical skills with Physiotherapy students, at the University of Rzeszów Institute of Physiotherapy, and she has been using her expertise in practice, during her work with patients suffering from spinal and pelvic floor problems.

kwcupryś@univ.rzeszow.pl

Notes:

4th International Conference and Expo on

Novel Physiotherapies

August 21-22, 2017 | Birmingham, UK

Efficacy of neurodynamic techniques in sensory disorders in the carpal tunnel syndrome-preliminary study

Tomasz Wolny

The Jerzy Kukuczka Academy of Physical Education in Katowice, Poland

Statement of the Problem: Carpal tunnel syndrome (CTS) is the most common compression neuropathy characterized by a number of sensory and motor disorders. The two-point discrimination sense (2PD), kinesthetic differentiation of strength (KDS) and kinesthetic differentiation of position (KDP) are often impaired in CTS patients. The purpose of this study was to compare the efficacy of neurodynamic techniques, with “sham” therapy in the treatment of sensory disorders in the mild and moderate CTS.

Methodology & Theoretical Orientation: The study included 39 CTS patients (the average age 53.2; SD=11.5) who were randomly assigned to the NT group (neurodynamic techniques) or to the CG group (“sham” neurodynamic techniques). The CTS diagnosis was made on the basis of nerve conduction studies and clinical examinations. 2PD (fingers 1-3), KDS (pincer and cylindrical grip), KDP (flexion and extension movement in the radiocarpal articulation) were assessed pre- and post-treatment. Therapy was conducted twice weekly and both groups received 10 therapy sessions. In the statistical analysis, the ANOVA model was used, supplemented with a post hoc test (p level 0.05).

Findings: A baseline assessment revealed no group differences in 2PD, KDS, KDP (in all cases $p > 0.05$). After therapy, 2PD in the symptomatic limbs in the NT group significantly improved ($p < 0.001$; 34%) but there were no significant changes in the CG group ($p > 0.05$; 2%). In the NT group after therapy, KDS significantly improved (pincer $p < 0.001$; 24%, cylindrical $p < 0.001$; 27%) but there were no significant changes in the CG group (pincer, cylindrical $p > 0.05$; 1%). In both groups, there were no significant changes in KDP after therapy (NT - flexion $p > 0.05$; 4%, extension $p > 0.05$; 6%, CG - flexion $p > 0.05$; 1%, extension $p > 0.05$; 1%).

Conclusion & Significance: Neurodynamic techniques had a positive effect on 2PD and KDP as compared to the “sham” therapy in mild and moderate CTS patients. There were no changes in KDP. Neurodynamic techniques are effective in treating sensory disorders in the CTS.

Biography

Tomasz Wolny has completed his PhD in 2006. He is a Researcher at the Department of Kinesitherapy and Special Methods in Physiotherapy, The Jerzy Kukuczka Academy of Physical Education in Katowice in Poland. He has published more than 67 papers in reputed journals and has been serving as an Editorial Board Member of reputed. For many years, he has been evaluating the efficacy of neurodynamic techniques in the treatment of CTS patients.

t.wolny@twreha.com

Notes:



4th International Conference and Expo on

NOVEL PHYSIOTHERAPIES

August 21-22, 2017 | Birmingham, UK

Accepted Abstracts

Novel Physio 2017

4th International Conference and Expo on

Novel Physiotherapies

August 21-22, 2017 | Birmingham, UK

The effects of cognitive-behavior therapy in the improvement of psychological and somatic symptoms in patients with dyssynergic defecation

Afsaneh Nikjooy¹, Aniss Khoshlahjeh Sedgh², Bahar Mahjoubi¹ and Rezvan Mirzaei¹¹Iran University of Medical Sciences, Iran²Islamic Azad University, Iran

Statement of the Problem: Dyssynergic defecation (DD) is a common digestive complaint which has an adverse impact on psychological health and quality of life of the patients. DD or paradoxical puborectalis contraction syndrome, which is one of the most common functional defecation disorders, has an unclear etiology. The abnormal pattern of muscle activity may be a result of an acquired behavioral and cognitive defecation disorder. This study aimed to determine the effects of cognitive-behavior therapy on physical and mental health of the DD patients.

Methodology & Theoretical Orientation: In a randomized clinical trial, 45 patients were divided into three study groups that received biofeedback therapy with cognitive-behavior therapy, biofeedback therapy and standard therapy. In order to assess the effects of cognitive-behavior therapy on the somatic symptoms, the culturally-adapted version of Short Form-36 and Beck Depression Inventory questionnaires were used, before and after treatment. Also, symptomatic changes were measured according to a constipation scoring system, i.e., the Agachan Scoring System with minimum score of 0, and maximum of 30, which represented the severity of the constipation. Digital rectal examination was used to assess the presence of paradoxical contraction of the puborectalis muscle.

Findings: The results showed that improvement of dyssynergic defecation and quality of life and decrease of depression in cognitive-behavioral therapy with biofeedback therapy group were more than the other two groups.

Conclusion & Significance: Inability to overcome the cycle of disease and treatment efforts will lead to increased depression. Cognitive behavioral therapy with the reconstruction process of beliefs and cognitions about disability and disease can decrease depression and improve the quality of life. Enhancement of mood and quality of life affect the individual care which leads to decrease the time in recovery process.

afsanehnikjooy@yahoo.com

4th International Conference and Expo on

Novel Physiotherapies

August 21-22, 2017 | Birmingham, UK

From inhibition of pain nerve fibers to anti-inflammatory effects: the emerging role of low level laser therapy in pain management

David Kunashko

Meditech Rehabilitation Centre, Canada

Low level laser therapy (LLLT) or photobiomodulation therapy (PBMT) has been extensively studied for nerve pathologies and significant developments have been achieved in the last several decades. LLLT adoption has been steadily rising by chiropractors and other medical professionals and has been included in several recent evidences based guidelines. LLLT is known to induce analgesia via conduction block of central and peripheral nerve fibers and endorphin release. Research has also shown LLLT increases neurite sprouting and outgrowth, Schwann cell proliferation, ATP production, gene expression, angiogenesis, neovascularization as well as decreases oxidative stress and inflammation. This presentation will review LLLT mechanisms of action as they relate to the management of pain and clinical applications for disc herniation, spinal stenosis, nerve entrapment syndromes, chronic regional pain syndrome amongst others. Case studies and peer reviewed randomized control trials will be discussed.

david@bioflexlaser.com

Notes:

4th International Conference and Expo on

Novel Physiotherapies

August 21-22, 2017 | Birmingham, UK

Post stroke early mobilisation in acute stroke unit

Annuradha Ravi

Khoo Teck Puat Hospital, Singapore

Introduction & Background: Early Mobilisation (EM) is considered as corner stone in Acute Stroke Unit (ASU). EM is defined as sitting out of bed, standing and walking and can be administered by nurses and allied health professionals. Stroke is the leading cause of disability and causes wide range of deficits including motor weakness, and cognitive issues leading to immobility. This immobility will lead to complications related to prolonged bed rest such as pneumonia and urinary tract infections (UTI), physically such as muscle atrophy and psychologically e.g., post stroke depression affecting quality of life.

Objectives: The objective is to implement safe and EM in an ASU using evidence based guideline and workflow to guide the nurses in ASU to promote patient safety and to increase the duration of mobilisation of acute stroke patients in ASU.

Methodology: The methodology followed was development of evidence based guideline, flow chart for the nurses in ASU by physiotherapists and collaborative discussion with nursing team of ASU to make it feasible for the nurses to carry out the EM. Data was collected before training (Pilot Trial) for one month before the implementation of guideline and flowchart in ASU. Training in the form of in-services and competency test was conducted on EM in ASU. Data was collected for 3 months after the training and implementation of guideline and workflow.

Results: Results have shown significant improvement in the duration of the time that the acute stroke patients were mobilised mostly out of bed. Before training was 29.8% and after training was 37.8%. Another important finding was that acute stroke patients especially in their first 5 days of stroke were mobilised safely without any adverse events after the training. Before training was 31.8% and after training was 59.7%. Data has shown that patients were more or less equally mobilised before and after training after 6 days of acute stroke. Before training was 51.2% and after training was 58.6%.

Conclusion: Safe and early mobilisation in ASU can be achieved effectively with implementation of guideline, workflow and training for the nurses in ASU especially in the first few days of acute stroke without adverse events ensuring safety.

ravi.annuradhaa@alexandrahealth.com.sg

4th International Conference and Expo on

Novel Physiotherapies

August 21-22, 2017 | Birmingham, UK

The functional approach of Professor Karel Lewit

Giancarlo Russo

University of Naples Federico II, Italy

The functional approach of Professor Karel Lewit is a purely evaluative method and is based on a personal basis of human neuromotor abilities. It aims particularly to the resolution of so-called problems "non-specific", i.e., the vast majority of neuromusculoskeletal diseases that often remain without clear medical diagnosis or often built into syndromic generic frameworks that add little to the understanding of the problem. After collecting an adequate medical history, necessary to exclude any pathological problems and to get an idea of standards and unique motor skills of each patient, this kind of evaluation approach is based then on a thorough and painstaking evaluation of active but mostly passive, of each component musculoskeletal apparatus, be it a muscle or a complex articulation, of the patient. The purpose is aimed at the identification of one or more weak links within the various common muscular functional chains but also specific to the individual, identifiable in the form of increased muscle tone, fascial adhesion or articular restriction. At the end of the long and detailed assessment, the therapist provides wise approach, get a picture of the patient, in which one or more chains will be altered by the presence of one or more weak links. The treatment, often a simple muscular energy technique, or rarely articular or manipulative, will focus exclusively to the single weak link predominant with the aim of normalizing dysfunctional chain, because of the patient's symptoms.

loongmei2000@yahoo.it

Notes:

4th International Conference and Expo on

Novel Physiotherapies

August 21-22, 2017 | Birmingham, UK

Back pain beliefs among physiotherapists working at Ministry of Health, Bahrain

Ebtisam Mahdi AlSammak

Department of Physiotherapy, Ministry of Health in Bahrain

Low back pain (LBP) is the single leading cause of disability worldwide, in Bahrain. It is considered the second common cause for referral to outpatient physiotherapy and it composes 22% of total patients referred to outpatient physiotherapy. This study examines whether 3 days of bio psychosocial educational workshop can effectively change LBP beliefs among physiotherapist working at Ministry of Health in Bahrain. Also whether it is improved and amid to identify which LBP beliefs are modified and which factors facilitate the changes. 99 Bahraini physiotherapists attended the educational workshop participated in this study. Ethical approval was obtained from the Ministry of Health Ethical committee. LBP beliefs were evaluated using the Back-Pain Beliefs Questionnaire (BBQ) before, after and 6 months post workshop. It was a 3 days' workshop delivered by Professor O'Sullivan who is a Researcher in the LBP in Curtin University in Australia. The BBQ was done in English language as the workshop language was in English as well. Respondents indicates their agreement with 14 statements on a 5 scale (1=completely disagree; 5=completely agree). The data were analyzed using SPSS. Paired t-test was used to compare overall BBQ scores, and individual BBQ statements scores, before and after the workshop and post 6 months was done. Paired t-test was used also to compare between the different sittings. The effects of workshop on physiotherapists beliefs' showed improvements in subject's attitudes, According to the observed mean difference between pretest ($M=2.5$, $SD=0.5$) and posttest ($M=2$, $SD=0.6$). This difference is statistically significant with paired sample t-test ($t(44)=5.4$, $p<0.000$). It indicates a very large effect of the applied intervention on the subject's attitudes. Among the practice settings: there were significant increases in BBQ scores after the workshop. Sum Pre-compared with sum post 6 months the value is $P=0.007$ which is statistically significant. Thus the attitude remains positive.

esammak1@health.gov.bh

4th International Conference and Expo on

Novel Physiotherapies

August 21-22, 2017 | Birmingham, UK

Implementing early mobilization program in HGH MICU by the HGH rehabilitation services (physiotherapy)

Fatma Hamed Almulla, Mohamed Aleef, Jose Jr. Uy, Manju Mathew, Muhammed Haneef, Mohammad Arshad and Jameela Al Ajmi
Qatar Rehabilitation Institute, Qatar

We aim to improve process of early mobilization of all pneumonia cases admitted to MICU through implementation of this program. We will ensure that all MICU pneumonia cases are referred to physiotherapy within 24 hour of admission and safety will be maintained during mobilization, therefore reducing MICU length of stay will improve patient/relative satisfaction. The main goal of this study includes: decreasing referral time of MICU pneumonia cases to physiotherapy from 7 days to 2 days by August 2016 and percentage compliance of all the PTs for early mobilization from 33% to 100% by the end of August 2016. The PDSAs list which is currently following are: increasing compliance of physiotherapist to early mobility checklist, improving compliance of MICU physicians to early referral to physiotherapy, effectiveness of individual therapist vs. multiple therapist during patient's mobilization and educating the physiotherapists/nurses about mobility methods for MICU patients. We have reduced the length of stay after implementing the early mobility program in MICU, HGH from 11 days to 4 days, increased the percentage of patients referred from physician to physiotherapists in MICU, HGH from 28% to 82% out of total admission of pneumonia cases. The days between patient admitted to MICU and referred to physiotherapist between Jan-Aug 2016 median is 8 days to 2 days and we have received 100% of referrals within 24 hours in MICU for all pneumonia cases. As the next step, we will continue monitoring the LOS and referrals, spread this to all HMC ICUs as a mobility guideline and we will continue testing early mobilization and getting referral within 24 hrs.

falmulla@hamad.qa

Notes:

4th International Conference and Expo on

Novel Physiotherapies

August 21-22, 2017 | Birmingham, UK

Shock wave therapy effectiveness in treating patients with heel pain: a randomized control trial

Eman Matar

Ministry of Health, Kingdom of Bahrain

Background & Purpose: Shockwave therapy is increasingly used for plantar fasciitis, but limited evidence supports its use. The purpose of this study is to determine the clinical effectiveness of shock wave in the treatment of chronic patient with plantar heel pain in term of pain intensity and function level. The purpose of the study is to measure any changes in pain level before and immediately after the treatment and to compare the effectiveness of shock wave therapy with other regular modalities in physiotherapy.

Participants: Ninety patients with plantar heel pain were selected from the public in the same order that they presented in the Physiotherapy Department at Ahmed Ali Kanoo Health Center.

Methods: The methods used for this study was Randomized Controlled Trial (RCT).

Analysis: The data obtained from this research was analyzed by SPSS version 15.0. ANOVA was used to compare between the three groups. Post Hoc test was used to determine which group is better than the other

Results: Pain intensity data group A (shock wave and exercise) was no immediate reduction. The mean value of pain intensity was calculated as 7/10 pre-intervention. The mean value of pain intensity was calculated as 3.3 /10 post intervention. Pain intensity data for group B (wax and exercise) was no change in pain within the same session. The mean value of pain intensity was calculated as 6.5/10 pre-intervention and the mean value of pain intensity was calculated as 5.2/10 post intervention. Pain intensity data for group C (Exercise only) was an immediate reduction, but not lasting for next session. The mean value of pain intensity was calculated as 6.3/10 pre-intervention. The mean value of pain intensity was calculated as 4.2/10 post intervention. Function has been improved by 80% with group A, 65% with group B, and 33% with group C.

Conclusion: The study demonstrated the clinical and statistical efficacy of shock wave therapy in the treatment of chronic patients with plantar heel pain in term of pain and function. In comparison to other physiotherapy modalities, shock wave therapy has been proven its effectiveness with other regular modalities in physiotherapy.

eman_matar@yahoo.com,
ematar@health.gov.bh

4th International Conference and Expo on

Novel Physiotherapies

August 21-22, 2017 | Birmingham, UK

Importance of modern awareness strategies in the field of physiotherapy practice using advanced social media

Jaison Kiran Dsouza

Al-Rashid General Hospital, Kingdom of Saudi Arabia

It was in 90s that many advertising appeared in newspapers and bill boards everywhere, a huge sum of amount was spent on these to get the attention of crowds. It's now in the 21st century with the affordable smart phones and technologically advanced gadgets, marketing and advertising has become fast, advanced and cheaper. It's just in your fingertips, you need to see what your friends are up to, or what they see, or what they buy, or what they are suffering from, you just must peep into the social media profiles and you can scan a lot of potential details in one glance. In the modern era there is no person left in the planet who is not using a mobile phone or land phone. Communication has become a major part of life and business. Physiotherapy has a history from the world war times and it has come a long way in advance treatment methods and advancement in the academic knowledge too. We find Bachelor's, Master's, PhDs and Researchers who are pursuing future and practice in physiotherapy fields. In my topic, we will see how social media has played a vital role of revolution from creating a profile account to making it into a business account. Few of the things which are widely used in social media are for online education, marketing, booking appointments, case discussion forums, Tele medicine, buy and sell, online consultation, webinars and so on. To conclude social media is a vital part of daily social life which helps to connect with patients and vice versa by just a few clicks.

jaisonphysio2001@gmail.com

Notes:

4th International Conference and Expo on

Novel Physiotherapies

August 21-22, 2017 | Birmingham, UK

Evolutionary fitness (holistic movement)

Julie Rammal

Director of J Sport Centre, Lebanon

JSport, an online and live holistic fitness and wellness firm offers clients worldwide luxury body, mind and soul services with celebrity trainer Julie Rammal. JSport is a California based firm, owned by celebrity trainer Encyclopedia of Bioanalytical Methods for Bioavailability and Bioequivalence Studies of Pharmaceuticals (E-BABE). It is a unique encyclopedia involving bioanalytical methods for bioavailability and bioequivalence (BA/BE) studies of pharmaceuticals for suitable method selection with thousands of combinations and searches against these methods. Most scrutinized literature was collected from different sources including PubMed. This database has been curreted using published methods for all most all pharmaceuticals. Required information for regular method development/validation such as IUPAC name, structure, solubility, chromatographic conditions, instrumentation information like HPLC, LCMS detection parameters, sample preparations, recovery details, limit of detection and limit of quantification, Tmax, Cmax etc., for routine application in BA/BE studies of pharmaceuticals was incorporated including official pharmacopeias information such as European Pharmacopeia, Japan.

julierammal@yahoo.com

Notes:

4th International Conference and Expo on

Novel Physiotherapies

August 21-22, 2017 | Birmingham, UK

Effect of aquatic-treadmill training on cerebrovascular function and gait in community-dwelling stroke survivors: A pilot study

K Thomas, C Burley, R Wright, J Ramsay and S Lucas
University of Birmingham, UK

Exercise-induced increases in brain blood flow, is a key mechanistic pathway for improved brain function. Water-based exercise augments this response so may target this mediator of improved brain health, in stroke survivors. Aquatic treadmill exercise has shown to improve gait re-education post stroke; however, no research has assessed cerebrovascular function. Aim of this study was to examine the effect of a four-week aquatic treadmill (ATM) intervention on cerebrovascular responsiveness and gait function in community-dwelling stroke survivors. Six community-dwelling stroke survivors (58±11 years) were recruited, with chronic stroke (>6 months). Participants completed a four-week ATM intervention of thirty minutes duration, three times per week. Pre-and post intervention measures were taken of cerebrovascular reactivity (CVR), as indexed from change in middle cerebral artery blood flow velocity (MCAv) to a hypercapnic (5% CO₂ in air) stimulus, and gait speed and distance outcome measures using 6-minute walk, Timed-Up-And-Go and 10-metre walk tests. Paired t-tests and ANOVA statistical models compared outcome measures between pre-and post-intervention measures. MCAv-CO₂ responsiveness (CVR) increased, showing a trend, although this did not reach statistical significance (p=0.079). MCAv-CO₂ responsiveness increased by 40% in the affected hemisphere and 64.6% in the unaffected hemisphere. Within-group gait improvements were seen in speed and distance, although not uniformly evident. This study established ATM training as a feasible option in stroke rehabilitation, also demonstrating possible gait improvements leading to more efficient community ambulation and better quality of life.

kt439@medschl.cam.ac.uk

Notes:

4th International Conference and Expo on

Novel Physiotherapies

August 21-22, 2017 | Birmingham, UK

Constraint-induced movement therapy combined with botulinum-A toxin injection as a novel rehabilitation approach for patients after stroke: Strategy and mechanism

M Nasb

Jilin University, China

Stroke is considered as one of the main causes of adult disability and the second most serious cause of death worldwide. Combination between constraint-induced movement therapy (CIMT) and botulinum toxin type A (BTX) injection emerged as a highly efficient intervention for rehabilitation patients after stroke. This is owing to their unique ability onto simultaneous improvement of motor function along with less tendency to spasticity. However, utilization of CIMT with BTX injection in rehabilitation and/or their mechanism hadn't been hitherto highlighted. This review presents a comprehensive study of this area of research including definition, mechanism, therapeutic effects and combination evidence which can consequently be a strong road-map for policy-makers, Researchers, and Physicians.

mmn87@yahoo.com

Notes:

4th International Conference and Expo on

Novel Physiotherapies

August 21-22, 2017 | Birmingham, UK

Comparing the effect of intensive conventional intervention versus modified constraint-induced movement therapy in stroke patients with upper extremity spasticity following a botulinum-a toxin injection: A randomized controlled trial

M Nasb

Jilin University, China

Introduction: Stroke, the second leading cause of mortality around the globe is also one of the main causes of adult disability, which significantly decrease their quality of life. Thus, it attracted various intense researches to overcome this issue and culminated in development of therapeutic approaches. Botulinum-A toxin injection combined with other rehabilitation method such as modified constraint-induced movement therapy (BTX-mCIMT) emerged as highly promising intervention for stroke therapy. This is ascribed to achieving faster functions restoration, better toleration, and prompt efficiency. It should be noticed that, the BTX-mCIMT and Botulinum-A toxin injection intensive conventional intervention (BTX-T) comparison has not been systematically highlighted previously in the literature. In pursuit of this aim, the present study is dedicated to compare between the BTX-CIMT and BTX-T in post stroke patients.

Objective: The present study is dedicated to determining whether there are any differences in therapeutic effects of BTX-mCIMT and BTX-T on stroke patients with upper extremity impairment, to explore the best way to facilitate motor recovery in stroke.

Methods: 58 cases of stroke were recruited from department of rehabilitation center of the first hospital of Jilin University from February 2014 to November 2016, the age was between 10 and 70 years old, onset time from 2 weeks to 12 months. Total 32 participants met the inclusion criteria, then all of them had the injection of BTX-A. Later, they were randomly divided into two groups: intensive conventional rehabilitation therapy (BTX-T), and modified constraint-induced movement therapy group (BTX-mCIMT). Both groups had the therapy for 1 hour a day, 5 days a week and for 4 weeks. Motor function was assessed by the modified Ashworth scale (MAS), Fugl-Meyer Assessment of the upper extremity (FMA), and Barthel index (BI) before treatment and 4 weeks after treatment.

Results: After 4-week treatment, both groups revealed a significant improvement in MAS, FMA and BI score compared with pre-treatment's ($p < 0.05$). BTX-mCIMT group possessed a noteworthy higher mean score in FMA and BI (the mean score of 52 and 77.6 respectively) than BTX-T group's (the mean score of 37.5 and 70 respectively) ($P < 0.05$) at the end of 4 weeks' treatment, however, no significant statistical difference was seen in MAS score ($P > 0.05$).

Conclusion: Both BTX-mCIMT and BTX-T can facilitate motor function recovery in stroke. Compared with BTX-T, BTX-mCIMT shows better curative effects on motor function recovery and daily living ability.

mmn87@yahoo.com

Notes:

4th International Conference and Expo on

Novel Physiotherapies

August 21-22, 2017 | Birmingham, UK

Influence of ankle training program on dynamic balance in patients with diabetic peripheral neuropathy

Mahmoud Yassin Elzanati

Professor, Physical Medicine Centre, Egypt

Background & Methods: The purpose of this study was to determine the influence of the training program to ankle region on dynamic balance in thirty females diabetic peripheral neuropathy patients. In addition, to investigate the validity of using multi-directional reach test as a tool in assess dynamic balance. The patients were assigned randomly into two equal groups (GI & GII). The patients in the control group received selected balance exercise whereas, the patients in the study group received selected balance exercise in addition to a design program directed mainly to ankle muscles from different positions. The following parameter including rhythmic weight shift test and tandem walk test through Computerized Posturography Device and Clinically by Multi-Direction Reach Test. Dynamic balance was assessed before and after six weeks of treatment intervention.

Results: There was significant differences between both groups (the study group and control group) at all different speed of rhythmic weight shift test in left-right direction. While in forward-backward direction there was no significant difference at slow speed only. There was a significant difference between both groups in step width and speed of tandem walk test while there was no significant difference in end-sway. There was significant difference between both groups in four reach directions of Multi-Direction Reach Test.

Conclusion: It can be conclude that the suggested ankle training is effective in treatment of balance disturbance and consequently could decrease risk of fall in diabetic peripheral neuropathy patients. The multi-directional reach test is a valid and inexpensive tool in assesses dynamic balance.

mahmoud_pt@yahoo.com

4th International Conference and Expo on

Novel Physiotherapies

August 21-22, 2017 | Birmingham, UK

Physiotherapy treatment of sciatica: rehabilitation proposal

Musorrotti M and **Gallarino V**
Roma, Italia

Sciatica is a medical condition characterised by pain that originates in the lumbar region and extends down the posterior lateral aspect of the leg, often radiating to the foot or ankle. Various symptoms, such as numbness or paraesthesia, can accompany pain across the affected nerve root. Lumbar nerve root pain is usually caused from a prolapsed intervertebral disc or from spinal stenosis. This results in irritation or compression to the sciatic nerve which is often followed by referred leg symptoms. Many individuals with sciatica demonstrate an altered gait pattern with analgesic use and psychological implications that hinder the recovery. The aim of our therapeutic plan is to reduce patients' pain scores and disability and correct altered gait patterns through the use of various physical therapy interventions in patients with sciatica. We use advanced physical therapies and a specialist equipment for spinal decompression, the Dynamic Antigravitational Postural System (SPAD) from the University of Chieti "Gabriele d'Annunzio".

marcomusorrotti@gmail.com

Notes:

4th International Conference and Expo on

Novel Physiotherapies

August 21-22, 2017 | Birmingham, UK

Epidemiology of low back pain among nurses working in public hospitals of Addis Ababa, Ethiopia

Mengestie Mulugeta Belay
Addis Ababa University, Ethiopia

Background: Low back pain (LBP) related to nursing profession, is a very common public health problem throughout the world. Various risk factors have been implicated in the etiology and LBP is assumed to be of multi-factorial origin as individual, work-related and psychosocial factors can contribute to its development.

Objectives: The objective is to determine the prevalence and to identify risk factors of LBP among nurses working in Addis Ababa City Public Hospitals, Ethiopia, in the year 2015.

Settings: Addis Ababa University, Black-Lion ('Tikur Anbessa') Hospital-BLH, is the country's highest tertiary level referral and teaching hospital. The three departments in connection with this study: Radiology, Pathology and Orthopedics, run undergraduate and residency programs and receive referred patients from all over the country.

Methods: A cross-sectional study with internal comparison was conducted throughout the period October-December, 2015. Sample was chosen by simple random sampling technique by taking the lists of nurses from Human Resource Department as a sampling frame. A well-structured, pre-tested and self-administered questionnaire was used to collect quantifiable information. The questionnaire included socio-demographic, back pain features, consequences of back pain, work-related and psychosocial factors. The collected data was entered in to Epi Info version 3.5.4 and was analyzed by SPSS. A probability level of 0.05 or less and 95% confidence level was used to indicate statistical significance. Ethical clearance was obtained from all respected administrative bodies, Hospitals and study participants.

Results: The study included 395 nurses and gave a response rate of 91.9%. The mean age was 30.6 (± 8.4) years. Majority of the respondents were female (285, 72.2%). Nearly half of the participants ($n=181$, 45.8% (95% CI (40.8%- 50.6%))) were complained of low back pain. There were statistical significant association between low back pain and working shift, physical activities at work; sleep disturbance and felt little pleasure by doing things.

Conclusion: A high prevalence of low back pain was found among nurses working in Addis Ababa Public Hospitals. Recognition & preventive measures like providing resting periods should be taken to reduce the risk of low back pain in nurses working in public hospitals.

mengemulu99@hotmail.com

4th International Conference and Expo on

Novel Physiotherapies

August 21-22, 2017 | Birmingham, UK

Study of laser synthesis of bioactive BaTiO₃/Pt on bone implants for improved healing

Miroslav Jelínek, Elena Buixaderas, Jan Drahoukoupil, Tomáš Kocourek, Jan Remsa, Přemysl Vaněk, Marta Vandrovcová, Martina Doubková and Lucie Bačáková

Czech Technical University in Prague, Czech Republic

An important requirement of implants designed to replace or interact with bone is a low elastic modulus matching as closely as possible to that of the surrounding tissue. Ti alloys, and especially those based on titanium (Ti) - niobium (Nb), have low elastic moduli and can become attractive orthopedic materials. Ti-Nb alloys exhibit not only non-toxicity, high corrosion resistance and beneficial mechanical properties, but also high biocompatibility. It is known that a bone is electrically active under mechanical loading, due to the piezoelectricity of collagen and the movement of ionic fluids within the bone structure. The addition of an electrically active component (such as BTO) to an implant material may improve healing and adaptation of the surrounding tissue. We studied ferroelectricity and bio-properties of BaTiO₃ layers (BTO) on Pt/fused silica substrates with the goal to use BTO ferroelectric layers to cover metal implants for better osseointegration in the future. BTO and Pt layers were prepared using KrF excimer laser ablation at substrate temperature T_s in the range from 200°C to 750°C in vacuum or in oxygen pressure of 10 Pa, 15 Pa and 20 Pa. BTO/Pt and Pt layers were well adhesive to FS substrate. BTO films of crystallite size 60 nm - 140 nm were fabricated. Ferroelectricity was confirmed using Raman scattering measurement and by electrical measurements. Results of AFM topology, XRD structure and ferroelectricity measurements of BTO/Pt/FS multilayers are presented. The adhesion, viability, growth and osteogenic differentiation of human osteoblast-like Saos-2 cells were also studied.

jelinek@fzu.cz

4th International Conference and Expo on

Novel Physiotherapies

August 21-22, 2017 | Birmingham, UK

Direct evidence of viral infection and mitochondrial alterations in the brain of fetuses at high risk for schizophrenia

Segundo Mesa Castillo

Psychiatric Hospital of Havana, Cuba

Background: There is increasing evidences that favor the prenatal beginning of schizophrenia. These evidences point toward intra-uterine environmental factors that act specifically during the second pregnancy trimester producing a direct damage of the brain of the fetus. The current available technology doesn't allow observing what is happening at cellular level since the human brain is not exposed to a direct analysis in that stage of the life in subjects at high risk of developing schizophrenia.

Methods: In 1977, we began a direct electron microscopic research of the brain of fetuses at high risk from schizophrenic mothers in order to finding differences at cellular level in relation to controls.

Results: In these studies we have observed within the nuclei of neurons the presence of complete and incomplete viral particles that reacted in positive form with antibodies to herpes simplex hominis type I [HSV1] virus, and mitochondria alterations.

Conclusion: The importance of these findings can have practical applications in the prevention of the illness keeping in mind its direct relation to the aetiology and physiopathology of schizophrenia. A study of amniotic fluid cells in women at risk of having a schizophrenic offspring is considered. Of being observed the same alterations that those observed previously in the cells of the brain of the studied foetuses, it would intend to these women in risk of having a schizophrenia descendant, previous information of the results, the voluntary medical interruption of the pregnancy or an early anti HSV1 viral treatment as preventive measure of the later development of the illness.

segundo@infomed.sld.cu

Notes:

4th International Conference and Expo on

Novel Physiotherapies

August 21-22, 2017 | Birmingham, UK

Physiotherapy instrument mobilisation: Clinical application of mechanical adjusting devices according to joint kinematic principles

Tim Mann

Department of Physiotherapy, Australia

Statement of the Problem: Articular mobilisation and manipulation techniques are performed by many health professionals including physiotherapists. Problems exist with the reliability and specificity of manual mobilisation techniques, safety of mobilisation of the cervical spine and thumb injury in the performance of manual techniques. It has been consistently demonstrated that the majority of manual therapy physiotherapists eventually suffer from thumb damage to the extent that that it impairs their ability to continue manual therapy. Clinicians demonstrate poor intratherapist and worse intertherapist reliability for accurately applying mobilising forces to a specific vertebra. In addition to the problems of accurately manually applying mobilising forces, there is good evidence to demonstrate that passive accessory movements are not specific to the stated levels. Manipulation is not without danger and the risks of serious injury are well documented. Therefore a method of more safely applying high velocity thrusts is desirable. Instrument mobilisation has greater safety with only one documented major incident in over 40 years.

Benefits of Instrument Mobilisation: Higher velocities of mobilisation, particularly instrument mobilisation, result in higher relative inertia of adjacent vertebra and therefore a more specific accessory mobilisation. Instrument mobilisation has documented equal effectiveness compared to manipulation of the cervical spine, lumbar spine and sacro-iliac joints. Additionally, higher velocities of instrument mobilisation have a range of spindle-modulated afferent barrage effects that give clinicians access to a variety of beneficial neurophysiological effects. Research reports that instrument mobilising according to joint kinematic principles is as effective as the Activator Methods approach.

Conclusion: Physiotherapy instrument mobilisation is more reliable, more specific, far safer, far more efficient, less injurious to the therapist and equally effective compared to manipulation and mobilisation and is a useful manual therapy option for physiotherapists and other clinicians.

balphysio@optusnet.com.au

4th International Conference and Expo on

Novel Physiotherapies

August 21-22, 2017 | Birmingham, UK

Efficacy of movement control exercise versus general exercise on recurrent sub-acute low back pain in a sub-group of patients with movement control impairment: a randomized controlled trial

Lehtola Vesa¹, Luomajoki Hannu², Leinonen Villed¹, Gibbons Sean³ and Airaksinen Olavi¹¹University of Eastern Finland, Finland²Zürich University of Applied Sciences, Switzerland³SMARTERehab, Canada

Background: Clinical guidelines recommend research on sub-groups of low back pain (LBP), but only few studies have been published. One sub-group of LBP is movement control impairment (MCI) and clinical tests to identify this sub-group have been developed. As a whole, general exercise seems to be beneficial for management of chronic LBP (CLBP), but very little is known about the management of a sub-acute LBP.

Methods: A randomized controlled trial (RCT) was conducted to compare the effects of general exercise versus specific movement control exercise (SMCE) on disability and function in patients with MCI within recurrent sub-acute LBP. Participants attended for up to five treatment sessions of manual therapy and either specific or general exercise. The primary outcome was disability assessed by the Roland-Morris Disability Questionnaire (RMDQ). The measurements were taken at baseline, immediately after three months intervention and at twelve months follow-up.

Results: Seventy patients met the inclusion criteria and were eligible for the trial. Measurements of 61 patients (SMCE n=30 and general exercises n=31) were completed by twelve months (drop-out rate: 12.9%). Both groups significantly improved with their respective therapeutic interventions. Mean changes of groups in the RMDQ from baseline to twelve months measurement showed significantly superior improvement for SMCE group -1.7 points (-3.9 to -0.5) 95% (CI).

Conclusion: Combination of manual therapy and SMCE is likely to be superior to manual therapy and general exercise following the intervention and twelve months follow-up for subjects with non-specific recurrent sub-acute LBP with movement control impairment.

vesa.lehtola@omt.org