

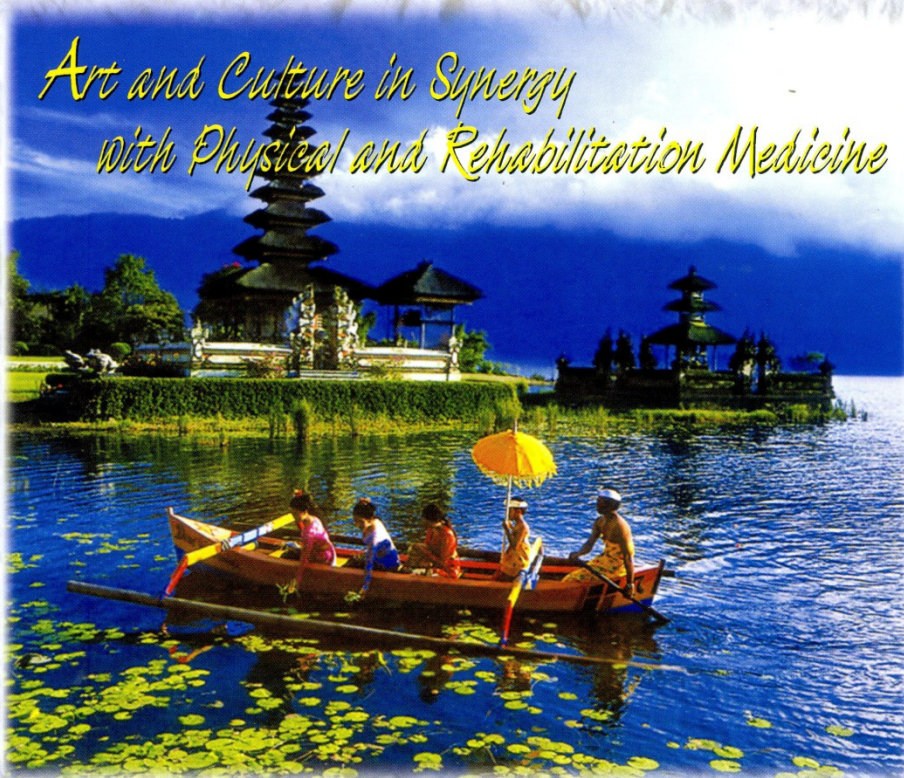
Fang-Chuen Huang*, Yueh-Ling Hsieh Comparison of the Analgesic Effects of Low- and High-intensity Laser Therapy Combined With Intraarticular Hyaluronan Injection on Adjuvant-induced Arthritis in Rats. The 3rd Asia-Oceanian Conference of Physical and Rehabilitation Medicine. 20th-23rd May 2012, Bali Nusa Dua Convention Center, Indonesia (Poster presentation)



The 3rd Asia-Oceanian Conference of Physical and Rehabilitation Medicine in Conjunction with The XI Annual Scientific Meeting of The Indonesian Physical Medicine and Rehabilitation Association (PIT XI PERDOSRI)

20th - 23rd May 2012, Bali Nusa Dua Convention Center, Indonesia

*Art and Culture in Synergy
with Physical and Rehabilitation Medicine*



Organized by : The Indonesian Physical Medicine and Rehabilitation Association

ABSTRACT AND PROGRAM BOOK



The 3rd Asia-Oceanian Conference of Physical and Rehabilitation
 Medicine **in Conjunction with** The XI Annual Scientific Meeting of
 The Indonesian Physical Medicine and Rehabilitation Association
 (PIT XI PERDOSRI)



Certificate

This is to certify that

Fang-Chuen Huang, MD

has participated as a
Poster Presenter

SYMPOSIUM

Art and Culture in Synergy with Physical and Rehabilitation Medicine

held in Bali Nusa Dua Convention Center - Indonesia, 21st - 23rd May 2012

Prof. Angela BM. Tulaar, MD
 Honorary President

Peni Kusumastuti, MD
 3rd AOCPRM President

Luh Karunia Wahyuni, MD
 Local Organizing Committee

Accredited by The Indonesian Medical Association (IDI) SK PB IDI No. 2099/PB/A/05/2012, 2100/PB/A.4/05/2012:
 Specialist Participant 28 SKP, General Practice Participant 24 SKP, Speaker 8 SKP, Moderator 4 SKP, Committee 3 SKP

**POSTER PRESENTATION
MONDAY, 21st MAY 2012**

• The Benefit of Pronated Feet Correction on Young Women Towards Muscle Injury Prevention	Maria R.Rachmawati	0521PP002
• Relationship Between Korean Version of Falls Efficacy Scale-International (KFES-I) and Korean Instrumental Activities of Daily Living (K-IADL)	Mi Jung Kim	0521PP003
• Effects of Concentric and Eccentric Abdominal Training on Lumbar Curvature and Flexibility	Maria Justine	0521PP004
• Osteogenesis Imperfecta: A Case Report	Yudith Dian Prawitri	0521PP005
• Juvenile Disc Disorder Causing Multiple Canal Stenosis In A Man on The Productive Age: The Role of PM&R for A Multidimensional Recovery	Husnul Mubarak	0521PP006
• Cervical Myelopathy Superimposed by Fracture Dislocation C1–C2 AIS D: A Case Report	Rini Lestari Ansanay	0521PP007
• The Predictors of Overweight for Children with Motor Delay Aged 0–6 Years	Ai-Wen Hwang	0521PP008
• Infectious Situation in Elderly Stroke Patients Undergoing Rehabilitation	Chien-Min, Chen	0521PP009
• Electrodiagnostic Evaluation of Statin Induced Neuropathy	Mohammad Reza Emad	0521PP010
• The Effectiveness of Mouth-opening Exercise in Patients with Chronic Closed Lock of the Temporomandibular Joint	Shinya Yura	0521PP011
• Inter-Rater Reliability and Validity of the Harris Infant Neuromotor Test in Taiwanese Infants	Sheng Chin Tsai	0521PP012
• Charcot's Joint – Rehabilitation Medicine Approach	Agus Prasetyo	0521PP013
• Treatment of Acute Spinal Cord Injury with Intravenous Infusion of a Ginseng Saponin, Ginsenoside Rb1	Kimihiko Nakata	0521PP014
• Extracorporeal Shock Wave Therapy on Rehabilitation of Cervical Spondylosis with Nuchal Ligament Calcification	Mao-Hsiung Huang	0521PP015
• Correlation of radiologic and Sonographic Findings with Score of WOMAC Questionnaire in Unilateral Knee Osteoarthritis	Alireza Ashraf	0521PP016
• Effectiveness of Calcitonin Injection in the Treatment of Lumbar Spinal Stenosis	Alireza Ashraf	0521PP017
• Effect of Treadmill Walking Training on Trunk Muscles Endurance in People with and without Low Back Pain	Yu-Ting Chen	0521PP018
• Arteriovenous Malformation Incidentally Found in Hematoma After Contusion: A Case Report	Tae Sang Yoon	0521PP019
• Subepidermal Edema in Diabetic Foot	Gladys LY Cheing	0521PP020
• Pott's Disease with Cervical Dislocation: A Case Report	Nurhikmah	0521PP021
• Intrathecal Baclofen Therapy for Severe Spasticity	Yasutaka Takagi	0521PP022
• Papase as Treatment Option for Overgranulating Wound	Nadia M.M	0521PP023
• The Effects of Dry Needling Therapy Induced Beta-Endorphin in the Myofascial Trigger Points	Li-Wei Chou	0521PP024
• Comparison of the Analgesic Effects of Low- and High-intensity Laser Therapy Combined With Intraarticular Hyaluronan Injection on Adjuvant-induced Arthritis in Rats	Fang-Chuen Huang	0521PP025
• Reliability of Posturography with Newly Developed Automatic Calibration Balance System	Myoung-Hwan Ko	0521PP026
• Rehabilitation of Electrical Burn Hand Injury	Juli Hartati	0521PP027
• Proprioception of Scapulothoracic Joints in Individuals with and without Shoulder Impingement Syndrome	Yi-Fen Shih	0521PP028
• Dry Needling to Remote Myofascial Trigger Point May Augment β -endorphin Levels of Proximal Skeletal Muscles in Rabbits	Szu-Yu Liu	0521PP029
• Klippel Trenaunay Syndrome in 3 Month Baby, A Case Report	Veranita Prabaningrum	0521PP030
• Above Knee Amputation and Lung Metastatic Osteosarcoma: A Palliative Rehabilitation Case Report	Yanna Susanti	0521PP031
• New Ultrasound Method in the Diagnosis of Frozen Shoulder	Sung Uk Lee	0521PP032
• Effect of 45° Reclining Sitting Posture on Swallowing in the Patient with Dysphagia	Jeong-Hwan Seo	0521PP033
• The Effect of Position of Immobilization Upon the Tensile Properties in Injured Achilles Tendon of Rat	Yong Min	0521PP034
• Rehabilitation in Type V (Schatzker) Tibial Plateau Fracture Post Open Reduction and Internal Fixation: A Case Report	Dyah Gita RK	0521PP035
• Effects of Electroacupuncture on Recent Stroke In Patients with Incomplete Bladder Emptying – A Preliminary Study	Kuo-Wei Yu	0521PP036
• Linear Scleroderma in Childhood: A Case Report	Ida Yuanita	0521PP037
• Evaluation of Change in Dynamic Property of Vessel Wall, Dynamic Deformability and-Strength of Arteriosclerotic and Ruptured Blood Vessel by Ultrasound	Kenji Kagechika	0521PP038
• Early Recovery Changes of Hip Abductor, Knee Extensor and Flexor Strength After Total Hip Arthroplasty	Toshiyuki Muratani	0521PP039
• The Improvement of Spasticity and Kinetic Change After Botulinum Toxin Injection in Poststroke Upper Limb Spasticity	Tsung-Ching Lin	0521PP040
• The Immediate Effect of Elastic Medical Taping in Athletes: Discussion Kinetic and Surface EMG Change	Tsung-Ching Lin	0521PP041

0521PP025

COMPARISON OF THE ANALGESIC EFFECTS OF LOW- AND HIGH-INTENSITY LASER THERAPY COMBINED WITH INTRAARTICULAR HYALURONAN INJECTION ON ADJUVANT-INDUCED ARTHRITIS IN RATS

Fang-Chuen Huang, Yueh-Ling Hsieh

Department of Physical Therapy, Graduate Institute of Rehabilitation Science, China Medical University, Taichung, Taiwan

Purpose: Intra-articular injection of hyaluronan (IAHA) is a potential clinical option for the treatment of rheumatoid arthritis (RA), but its analgesic effect was still limited. Low-level laser therapy is the proven and recommended intervention for managing RA on pain, but the dosage of laser therapy is still controversy. The purpose of this study was to investigate the effects of combined use of low- or high-intensity laser therapy (LILT or HILT) with IAHA on pain and inflammation in rats with complete Freund's adjuvant-induced arthritis (CIA). *Materials and Methods:* Monoarthritis was induced in adult male Sprague-Dawley (250–300 g) via intraarticular injection of complete Freund's adjuvant into the tibiotarsal joint. The CIA animals were divided into 4 groups: control (no treatments), IAHA, LILT+IAHA, HILT+IAHA groups. Seven days after CIA, combined use of laser therapy and IAHA were administered for 7 consecutive days and once every other day respectively. Functional evaluations of edema and pain behavior, histology, and pro-inflammatory cytokines were performed. *Results:* The mechanical withdrawal pain threshold and pro-inflammatory cytokines were significantly improved in HILT+IAHA group when compared with those in the IAHA, LILT+IAHA and control groups. *Conclusion:* This study findings suggest that combined use of HILT and IAHA can decrease hyperanalgesia through modifying pro-inflammatory cytokines. Therefore, HILT will be substantial and feasible for alleviation of pain and inflammation on CIA model treated with IAHA.

0521PP026

RELIABILITY OF POSTUROGRAPHY WITH NEWLY DEVELOPED AUTOMATIC CALIBRATION BALANCE SYSTEM

Myoung-Hwan Ko, Byung-Hyun Park, Jeong-Hwan Seo

Chonbuk National University Medical School, Jeonju, South Korea

Purpose: To examine the reliability of posturography with newly developed automatic calibration balance system. *Materials and Methods:* Seventeen patients who were capable of standing without assistive devices (14 males and 3 females, age between 26–64 years old) participated in this study: 9 for the newly developed automatic calibration balance system (I Balance S (CyberMedic®, Korea)) and 8 for Biodex Balance System SD (Biodex Medical System®, New York, USA). Mean center of gravity (COG) sway velocity, total distance, maximum velocity (MV), average movement degree (AMD), maximum excursion (ME) and directional control (DC) were measured by I Balance S. Overall stability index and overall directional control score were measured by Biodex Balance System SD. For the accurate measurement, the COG was automatically calibrated to zero before each measurement by I Balance S. Each subject was tested once by examiner A and twice by examiner B. The intraclass correlation coefficients (ICC) were calculated to assess the inter-rater and intra-rater reliability. *Results:* The inter-rater reliabilities were higher in the I Balance S (ICC, 0.782–0.974) than in Biodex Balance System (ICC, 0.384–0.756). And the intra-rater reliabilities were similar between I Balance S (ICC, 0.736–0.982) and Biodex Balance System SD (ICC, 0.878–0.970). *Conclusion:* I Balance S using automatic calibration balance system is a reliable posturography to be used in balance assessment.

0521PP027

REHABILITATION OF ELECTRICAL BURN HAND INJURY

J. Hartati, T. Prabowo

Department of Physical Medicine and Rehabilitation Faculty of Medicine Padjadjaran University-Dr. Hasan Sadikin Hospital Bandung, Indonesia

Purpose: High voltage electrical injuries result in extensive deep tissue damage and are associated with multiple complications and long rehabilitation process. The strategic management can both be challenging and complex begins at the moment of the injury and continues through the rehabilitation period. *Case:* A man, 30 years old, with a chief complaint rigid of both hands and wrists and unable to grasp after exposed to high voltage electrical burn 7 months ago. He was hospitalized for 2 months and underwent several surgeries. For activities of daily living (ADLs), almost all were performed with assistance. Findings on physical examination for both hands: dry wound, reduced muscle mass, limited range of motion (ROM), and decreased of manual muscle testing (MMT) & sensibility. Electromyography (EMG) showed the presence of motor and sensory axonal bilateral lesions in the median, ulnar and radial nerves. Barthel index (BI) was found as severe disability and Depression, Anxiety and Stress Scales (DASS-42) indicated severe depression. Rehabilitation programs given were education, ROM exercise followed by stretching, electrical stimulation on both intrinsic hand muscles, ADLs training and supportive therapy. *Conclusion:* In 2 months therapy there was improvement for ROM & MMT and increased of functional outcomes and DASS-42 scales. For the next step, we are planning to give adjustment tools to allow the patient to perform ADLs independently and prepare him for getting a job with the existing conditions.

0521PP028

PROPRIOCEPTION OF SCAPULOTHORACIC JOINTS IN INDIVIDUALS WITH AND WITHOUT SHOULDER IMPINGEMENT SYNDROME

Y.F. Shih, H.R. Deng

Department of Physical Therapy and Assistive Technology, National Yang-Ming University, Taipei, Taiwan

Purpose: Proprioception deficit is suggested as a contributor to scapular dyskinesis and often emphasized in the rehabilitation following shoulder impingement. However, very few studies described the measurement method for scapular proprioception and its interaction with shoulder impingement syndrome. Therefore, the purpose of this study was to describe and compare scapular proprioception in subjects with and without shoulder impingement syndrome. *Materials and Methods:* Twenty patients with shoulder impingement and 20 matched controls were participating in this study. The scapular proprioception was measured as joint reposition errors in 4 scapular movements (elevation, depression, protraction, retraction). The subject was asked to reposition their scapula to the maximum and reference position in each movement. The Liberty electromagnetic tracking system was used for recording joint kinematics. We used two-way repeated measures analysis of variance to examine the group differences in scapular reposition errors with the level of significance set at 0.05. *Results:* A significant group by side interaction was observed ($p < 0.05$), with significantly larger reposition errors in patient's injured shoulder as compared to the non-injured side and the controls ($p < 0.05$). Handedness did not have a significant effect on the scapular reposition errors ($p > 0.05$). *Conclusion:* Scapular proprioception was impaired in impinged shoulders, which should be considered when assessing and treating patients with shoulder impingement.