STROKE REHABILITATION: FROM CONVENTIONAL TO ROBOTIC THERAPY

2nd - 5th OCTOBER, 2013
Borobudur Hotel, Jakarta - Indonesia
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Asian Congress of Neuro Rehabilitation (ACNR) 2013 in Conjunction with
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| 08:00-08:15 | Various Gait in Hemiplegic Stroke — Imam Subadi (Indonesia) |
| 08:15-08:30 | Prevention and Management of Genu Recurvatum in Stroke Patient Rosiana Pradanasari Wirawan (Indonesia) |
| 08:30-08:45 | Management of Spasticity After Stroke — H. Subagyo (Indonesia) |
| 08:45-09:00 | Sexual Problem After Stroke — Herdiman Purba (Indonesia) |
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| 08.00 - 12.00 | **WS 7 (Room: Sumba A)**  
Pain management with Laser  
Instructors:  
Nyoman Murdana (Indonesia)  
Team                                                             |
|           | **WS 8 (Room: Sumba B)**  
Stroke Rehabilitation: From Conventional to Robotic Therapy  
Instructor:  
Shih-Ching Chen (Taiwan)  
Christian Ugalde (Chile)  
Rosiana Pradanasari Wirawan (Indonesia)                          |
|           | **WS 9 (Room: Sumba C)**  
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Jerico Santiago Dela Cruz (Philippines)                        |
|           | **WS 10 (Room: Banda A)**  
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Instructor:  
Anita Ratnawati (Indonesia)  
Pradjna Paramita (Indonesia)                                    |
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Instructors:  
Gunawan Kurniadi (Indonesia)  
Rudi Handoyo (Indonesia)                                          |
| 12.00 - 13.00 | Lunch                                                                 |
| 13.00 - 17.00 | **WS 12 (Room: Banda C)**  
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Instructor:  
Maria Regina Rachmawati (Indonesia)  
Franz Harrer (Germany)                                          |
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Syahrial (Indonesia)  
Nury Nusdwinuningtyas (Indonesia)                              |
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Anita F. S. Paulus (Indonesia)  
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Tirza Z Tamin (Indonesia)  
Indra Tjahjono (Indonesia)                                      |
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Apichana Kovindha (Thailand)  
Rosiana Pradanasari Wirawan (Indonesia)                      |
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**WORKSHOP ABSTRACT PRE CONGRESS**
FP 11
The Effect of Poco-Poco Dance on Body Composition and Physical Fitness in Females with Uncomplicated Obesity

Tirza Zainuddin Tamin, 
Physical Medicine and Rehabilitation Department, Cipto Mangunkusumo General Hospital, Jakarta (Indonesia)

Objective: The purpose of this study is to learn about the benefits of poco-poco traditional dance in lowering body weight, body mass index (BMI), and waist circumference, increasing cardiorespiratory endurance, quadriceps muscle strength, and static balance in females with uncomplicated obesity.

Material and methods: This is a quasi-experimental study, or a pre-post study. The participants are women with uncomplicated obesity taken with a consecutive sampling. An eight week course of diet program and poco-poco dance exercise 3 times a week was carried out in the intervention group, while the control group only undergo dietary program. Results: From a total of 36 participants, there is a significant decrease in the intervention group compared to the control group regarding baseline weight -4.13 (3.5) kg, BMI -1.765 (5.55 (-3.9)) kg/m2, and also waist circumference -4.5 (14.2) cm. This group has an increase of cardiorespiratory endurance using static cycling (VO2max) approximately 9.0 (0.25) ml/minute, an increase in quadriceps muscle strength using NK table about 6.4 (7) kg, and an improvement in sustaining balance using Romberg test for 15 (0.25) seconds.

Conclusion: Poco-poco dance can be utilized as one of the therapeutic exercise programs in Physical Medicine and Rehabilitation to lower body weight, BMI, and waist circumference, and also increase cardiorespiratory endurance, quadriceps muscle strength, and balance in female with uncomplicated obesity.

FP 12
Non-operative Treatment for Partial Rupture of Tendon Achilles

Linwati Yenni 1, Lindoyo Yenni 2
1 Faculty of Medicine of Maramatha Christian University Bandung, 2 Clinic "Sehati Medika" Bandung (Indonesia)

Objective: To know whether Low Laser and Magneto Therapy could help recovery of patient with partial rupture of Achilles tendon to his daily activities. Case: Male, 78 years old physician comes with partial rupture of left Achilles tendon when jogging one day ago. His left ankle was swollen and redness with palpable defect in the tendon between 4 cm proximal to the calcaneus, pain on movement in all direction, limited range of motion, positive Thompson's test. We gave low level laser therapy 3 Joule/cm2 for 3 days and doses was increased gradually to maximal 10 J/cm2, magneto therapy with the power 80 Gauss, frequency 50 Hz, duration of 20 minutes daily for 3 weeks. At this stage, patient walked using Ankle Foot Orthotic (AFO) and walker. At the third week treatment, USG evaluation found a rupture of Achilles tendon medial size diameter 1.6 x 0.5 cm and new formation of granulation tissue. We decreased the frequency of therapy to 3 times a week, continued to walk using AFO with quadrupod. After 6 weeks treatment on USG was shown appearance of collagen but there is still gap between proximal and distal tendon. The therapy was continued bi-weekly and isometric exercise in AFO for gastrocnemius muscle. After 10 weeks treatment the result of USG examination found no more tear. The therapy was continued bi-weekly, started with gentle stretching, followed by gradual strengthening exercises and gait training without AFO or walking aid. On sixth month patient was able to walk without walking aid and travel abroad without any problems. Conclusion: Low Laser and Magneto Therapy could help patient with partial rupture of Achilles tendon recovered to his daily activities.

FP 13
Rehabilitation of Right Piriformis Syndrome: A case report

Paulina E. Wowiling, Lidwina S. Sengkay
Physical Medicine and Rehabilitation Department, General Hospital Prof. R.D. Kandou, Sam Ratulangi University Manado, North Sulawesi (Indonesia)

Objective: To demonstrate the advantages of ultrasound diathermy (USD) and piriformis muscle stretching in reducing symptoms of piriformis syndrome. Case: A 60-year-old woman with right buttock pain and posterior thigh pain for 1 month (VAS=8/10). She had history of fall in the sitting position, resulting in low back pain for 3 months. Along that period, she used to stand or walk with bending her body to reduce the pain. After the low back pain entirely subsided without any therapy, she started to feel stabbing pain in the right buttock. In one month, the pain spread to the posterior thigh, resulting in difficulty on ambulation. Physical examination found on palpation a tenderness of right piriformis muscle, positive sign on Laseque, Pace, and FAIR test. Pelvic radiographic examination reveals a normal pelvic. Rehabilitation programs consist of education about her condition, application of continuous ultrasound 1 MHz above right piriformis muscle, performed muscle stretching, and education about several home programs. Results: Following the 2 months of intervention, the patient reported 0/10 pain with all activities. Conclusion: USD and muscle stretching can decrease effectively piriformis muscle spasm, reduce the compression on sciatic nerve and alleviate the pain.

FP 14
Physical Fitness & Knee Injury and Osteoarthritis Outcome Score (KOOS) in Females with Knee Ligament Injury Pre and Post Rehabilitation Programs

Helena Turnip, Tirza Tamin
Physical Medicine and Rehabilitation Department Dr. Ciptomangunkusumo National General Hospital, Faculty of Medicine, University of Indonesia, Jakarta (Indonesia)

Background: Individuals with sport-related knee ligament injury usually complain of pain, swelling, tenderness, bruising and reduced movement of the knee. This ligament injury may lead to instability accompany by functional disability. Rehabilitation programs may help to improve physical fitness and quality of life, so it should be well-supervised to ensure that the exercise is appropriate. Objectives: To assess the improvement of physical fitness and KOOS pre and post rehabilitation programs.

Materials and Methods: Five female patients with various type of moderate knee ligament injury after recreational sport injury underwent the rehabilitation programs including aerobic, strengthening and balance exercise in three times a week for eight weeks. The patients were assessed for physical fitness: flexibility using Goniometry, 10 RM muscular strength using NK Table, balance using Romberg test, endurance cardio-respiration using Ergo cycle and 1 RM using En-Tree. KOOS is use to measure the quality of life. They were assigned to perform exercise and stress test for each components in the outcome score. Pre and post intervention result were assessed in each parameter. Results: There were improvement of knee flexion ROM (p = 0.00), 10 RM muscular strength (p = 0.01), balance (p = 0.00), VO2max (p = 0.05) and 1 RM (p = 0.04). In variable subjective with KOOS, pain (p = 0.00), symptoms (p = 0.04), ADL (p = 0.57), sport & recreation function (p = 0.04) and knee related quality of life (p = 0.94) improved. Conclusion: The result of this study indicated that rehabilitation programs can improve the physical fitness and KOOS, so that the patient can return to recreational sport.