No. 16 Prevalence of Burnout Syndrome and Related Factors in Workers in a Children's Rehabilitation Center in Mexico.
Morales Martínez Daniela; López Valenciac Ana Karina; Castillojós López Manuel Del Jesús.

Objective: Determine the prevalence of burnout syndrome and related factors among the workers in a rehabilitation center. Design: Prevalence survey. Setting: A children's rehabilitation center in Mexico. Participants: Workers in a rehabilitation center. From 106 eligible subjects 10 did not attend the invitation to complete the survey, 4 were out of the workplace, and 3 were temporary workers. Of the remaining 89, three were excluded for not signing the informed consent and 1 for being part of the research. 85 participants (physician, therapists, psychologists, nursery, social workers, home service special projects and volunteering) completed the self-administered survey which consisted of one questionnaire of demographic data the Maslach Burnout Inventory the Beck Depression Inventory for assessing depression and the audit scale for alcoholism. Interventions: Not applicable. Main Outcome Measures: Maslach Burnout Inventory (depersonalization, emotional exhaustion and personal accomplishment computed separately) Beck Depression Inventory and audit scale for alcohol.

Level of Evidence: Level 1. Results: The median of age was 30 years. 11.9% were men and 88.1% were women. Of all participants 12.9% showed moderate emotional exhaustion and 12.9% showed a high degree: 10.6% were moderate depersonalized and 5.9% highly depersonalized. Only the half of the participants showed high personal accomplishment (56.5%) and it was low in 18.8% of the workers. The prevalence of burnout syndrome was 49.4% while 20% have some degree of depression and 6 subjects were alcohol drinkers at risk. None of the main outcomes related to demographic variables. Conclusions: The burnout syndrome is high among people who work in the area of rehabilitation. Because of this it is necessary to adopt measures to avoid the development of this pathology and assess the evolution. These results correspond with other studies conducted in Mexico in medical staff.

No. 17 Efficacy and Safety of AbobotulinumtoxinA (Dysport®) in the Treatment of Adults With Upper Limb Spasticity: Randomized Double-Blind Placebo-Controlled Phase III Study.
Jean Michel Gracies; Allison Brashear; Robert Jech; Philippe Picaut.

Disclosures: AbobotulinumtoxinA is not approved by the FDA for the treatment of upper limb spasticity. JMG: consultant/research support (Allergan, Ipsen, Merz). AB: consultant (Allergan, Ipsen, Merz, XenoPort, Concert); research support (Allergan, Merz, Ipsen, NINDS). RJ: consultant/research support (Ipsen, AbbVie, Medtronic). PP: Ipsen employee.

Objective: To assess the efficacy and safety of abobotulinumtoxinA (Dysport®) in hemiparetic adults with upper limb spasticity (ULS) post-stroke/traiumatic brain injury. Design: Randomized placebo-controlled double-blind study Setting: 34 sites in 9 countries. Participants: 243 adults 18 years 6 months post stroke/traiumatic brain injury. Interventions: Randomization (1:1:1) to abobotulinumtoxinA (500 or 1000U) or placebo (single treatment cycle). Main Outcome Measures: Muscle tone (Modified Ashworth Scale [MAS]) passive function (Disability Assessment Scale [DAS]) active function (active range of motion [AROM] ease of applying splint Modified Frenchay Scale [MFS]) overall clinical benefit (Physician Global Assessment [PGA]).

Level of Evidence: 1. Results: Four weeks post injection 73.8% (500U) and 78.5% (1000U) of patients were responders determined by MAS ≥1 grade improvement versus 22.8% (placebo); p<0.0001. 50% (500U) and 62% (1000U) of patients responded as determined by DAS ≥1 grade decrease for their principal target of treatment versus 39.2% (placebo). Patients increased their mean (SEM) AROM at both doses (500U/1000U) versus placebo: against finger flexors (+23.9° (3.6)/17.6° (4.4) versus -6.2° (5.3)) elbow flexors (+12.6° (4.4)/15.8° (5.1) versus 2.7° (3.1)) and wrist flexors (+15.7° (6.0)/26.4° (7.7) versus 3.5° (7.5)). Use of splint was assessed as easier in both active groups and MFS scores trended positive but not statistically significant. Overall clinical benefit (PGA ≥+1) was observed in 75% and 87.3% of the patients versus 40.5% (placebo). The safety profile was as expected. Conclusions: AbobotulinumtoxinA (500/1000U) injected into upper limb muscles improved muscle tone passive and active function in hemiparetic adults with ULS at week 4. Safety profile was consistent with the known profile of abobotulinumtoxinA in this disorder.

No. 18 Visual Dependence After Stroke: A Multi-Dimensional Concept.
Alain Yelnik; Sophie Tasseel-Ponche; Isabelle Bonan; Pierre-Paul Vidal.

Objective: Visual dependence (VD) often observed after stroke has to be taken into account for rehabilitation as it could have a negative impact on balance. Various tests are designed to evaluate VD. The aim of this study was to compare two of these tests with the hypothesis that the results could not be correlated as they examine different physiological functions. Design: Monocentric prospective study. Settings: A PRM department. Participants: 84 patients were enrolled 45 ± 30 days after a unilateral hemispheric stroke: 55 ± 10 years, 65% ischemic, 51% of right lesion, 65% men, functional impairment measurement 79 ± 26/126. 60% of patients had a sensory impairment, 11% a visual field defect, 35% a visuospatial neglect, 44% were able to walk without human assistance.

Intervention and Measures: The first test was the adjustment of a luminous rod to the vertical position despite a tilted framework using the rod and frame test (RFT). Parameters recorded were the tilt and the uncertainty. The second test was a sitting posture on a dynamic force platform under optokinetic stimulation. Parameters recorded were the tilt of the body and the stabilization reaction. The correlation analysis between tilt data and between variability data was made using Spearman rank coefficient. Level of Evidence: 2. Results: There were no correlations between the two tests for all patients neither in subgroup analysis according to the main clinical features. Conclusion: These two tests are very different and not correlated in a post-stroke population. The RFT is a cognitive task assessing the VD for perception of verticality; the second test is a postural task evaluating the effect of dynamic visual disturbance. Visual dependence is not an absolute concept but is depending on the task. The exact impact of each kind of VD on balance has to be investigated.

No. 19 Upper Limbs Post-Stroke Robotic Rehabilitation.
Daniel G. Goroso; Thais Terranova; Denise R. Tsukimoto; Linamara R. Battistella.

Background: The number of experimental approaches that attempt to understand how to improve the neuroplasticity through rehabilitation techniques is increasing. Robotic devices intend to assist patients who have total or partial sensory-motor loss. However studies are needed to identify an ideal treatment. Objective: To understand the role of two robotic systems for upper limbs in the rehabilitation process of post-stroke patients. Design: Randomized controlled study. Materials: One robot is suitable for wrist rehabilitation (InMotion3) and the other for shoulder-elbow rehabilitation (InMotion2). Participants: Twenty post-stroke patients with at least 6 months of the injury occurrence participated in this research. Seven patients were randomly allocated to form group A (GA) training with the InMotion2 robot focusing on the shoulder-elbow and training InMotion3 focusing on the wrist training on alternate days during 36 sessions. The thirteen remaining patients formed group B (GB) who trained with the InMotion2
and InMotion3 robots at the same number session that GA.

Protocol: The rehabilitation task consisted of a series of point-to-point movements with each robot. Both groups received the same amount of conventional therapy sessions. Main Outcome Measures: The performance between the groups before and after the robotic therapy was evaluated by scores of the Fugl-Meyer Test (FM), motor active log (MAL), Wolf Motor Function Test (WMFT), Functional Independence Measure (FIM), stroke impact scale (SIS), arm motor ability test (AMAT), and kinematic variables. Result: The two groups had a more significant gain (p<0.05). I) the gain is greater in GA than in GA (p<0.05). II) the most sensitive scales to assess rehabilitation intervention robotics are: FM, WMFT, AMAT. IV) the scale WMFT and AMAT has correlation with the temporal parameters measured by own robot. Conclusions: It is expected that the results of this study will enable us to define a tailored therapy according to patient’s particular needs.

NEUROLOGICAL REHABILITATION

No. 20 Development and Evaluation of a Multidisciplinary 8-Week Health Promotion Program for Chronic Stroke Survivors.

Seung Hee Ho; Jung-Kook Kim; Jiye Baek; Seo Jin Yang.

Objective: This study was conducted to develop and evaluate a multidisciplinary 8-week health promotion program for chronic stroke survivors in Korea. Design: One-group pre-post test. Setting: Community-dwelling chronic stroke survivors. Participants: Thirty-five (27 men 8 women; aged 60-17 years old) 38 years old, 11.54 ± 6.55 years since the onset; 21 right hemiparesis 14 left hemiparesis; 22 ischemic stroke 13 hemorrhagic stroke) community-dwelling chronic stroke survivors participated in the program. Interventions: The multidisciplinary 8-week health promotion program was developed to improve rehabilitation for chronic stroke survivors. All subjects participated in the once-a-week eight-week program combining education and exercise components for 90 min. The education component consisted of providing stroke related information and helping them better manage nutrition stress and life habits. The exercise component incorporated fitness, strength, mobility and balance trainings. In addition the short message service (SMS) was provided individually to encourage and motivate the participants regarding lifestyle modifications. Main Outcome Measures: Stroke-specific functions were assessed using the Stroke Impact Scale (SIS) and the National Institutes of Health Stroke Scale (NIHSS). Functional performance was measured by the Berg Balance Scale (BBS), the six minutes walk test (6MWT) and the Timed up and go (TUG) test. Quality of life was estimated using the EuroQol 5-Dimension questionnaire (EQ-5D). Results: There were significant reductions in NIHSS (p=0.002) and TUG (p<0.001) and an increase in BBS (p=0.001) and EQ-5D (p=0.027). The mean SIS scores of all domains and 6MWT were improved but the differences were not significant (p>0.05). Conclusion: We concluded that the multidisciplinary 8-week health promotion program which incorporated physical activities and education could help chronic stroke survivors improve both physical functioning and health-related quality of life and that this program could potentially save much of healthcare expenditure for chronic stroke survivors.

No. 21 Valoración de la Espasticidad Independencia y Calidad de Vida en la Lesión Cerebral Crónica tras Infiltración con Toxina Botulínica.

Idoya Barca; Adriel Cuevas; Concepcion Cuenca; Rocio Vacas.

Objective: Revisar la evolución de pacientes en tratamiento rehabilitador que presentan espasticidad severa secundaria a daño cerebral durante dos años de tratamiento con toxina botulínica asociada a fisioterapia y evaluar de manera subjetiva y objetiva cómo afecta la mejora de la misma en la calidad de vida e independencia para sus actividades diarias así como en el manejo por el cuidador principal. Diseño: Estudiamos la variación de la espasticidad tras infiltración de toxina semestralmente y su impacto en la calidad de vida funcionalidad articular y muscular y dolor mediante escalas. Variables: Sexo edad causa intensidad y localización de espasticidad tiempo de evolución doss y lugar de infiltración. Ubicación: Consultas externas de hospital de primer nivel. Participantes: Pacientes que acuden a consulta con espasticidad de más de un año de evolución. Causas: Parálisis cerebral infantil (2) infarto cerebral (3) y traumatismo craneal (3). Edades entre 21 y 65 años. Cuatro varones. Seguimiento de dos años. Intervenciones: Infiltración de toxina botulínica en los músculos espásticos. Principales medidas de resultados: Exploración física y escalas calidad de vida SF-12 actividades diarias Barthel independencia funcional FIM valoración motora Fugl Meyer dolor eva y impacto en cuidador principal. Nivel de Evidencia: 2. Resultados: Encontramos mejora en puntuaciones de escalas obtenidas tras tratamiento tanto de función de miembros superiores (3 pacientes) marcha (dos pacientes) percepción estética (dos pacientes) actividades diarias (3 pacientes) dolor (4 pacientes) y calidad de vida (6 pacientes). En todos los casos el cuidador principal se mostró contento con los resultados. Conclusiones: Existe asociación entre mejora de espasticidad funcionalidad y calidad de vida de los pacientes. Es fundamental una correcta exploración y valoración previa y posterior a la infiltración así como dar pautas de ejercicios y consejos.

No. 22 Impact of Early Occupational Therapy on the Cognitive and Functional Recovery in Adult Patients with Traumatic Brain Injury in Chile.

Sandra Olivares, OT; Javiera González, SLP; Claudio Soto; Daniel Muñoz, MD, MSc.

Disclosure: None. Objective: To evaluate the impact of early occupational therapy (OT) in a cohort of patients with traumatic brain injury (TBI). Design: Retrospective cohort study. Setting: Trauma and rehabilitation referral center in Santiago, Chile. Level of Evidence: Level II. Participants: 106 patients with TBI who started OT interventions in intensive care unit (ICU), intermediate care unit (INCU) or medicine care unit (MCU). Interventions: An early OT rehabilitation program was applied (environmental management, cognitive stimulation, activities of daily living training, postural management and early mobilization) as part of a multidisciplinary program of TBI patient care. Main Outcome Measures: Outset of rehabilitation variation (final versus initial) of functional motor level (FML) and Rancho de Los Amigos (RLA) scale, disability rating scale (DRS), functional independence measure (FIM), Montreal cognitive assessment (MOCA), frontal assessment battery (FAB) and Loewenstein occupational therapy cognitive assessment (LOTCA). Results: At the end of the OT program all patients improved results in RLA, MOCA, DRS and FIM (p=0.006 each). Analyzing each services patients in INCU obtained higher recovery especially in MOCA scale (p=0.016). Patients who received the early onset intervention had a better cognitive and functional performance according to ERLA (p<0.001), FIM (p<0.001), DRS (p<0.006) and FAB (p<0.003). A 72.7% of ICU patients who started with supine level in FML presented a statistically significant improvement in this variable. At the end of the program an increase in FML was observed being patients who started at INCU the largest number of subjects who achieved gait level in relation to the initial level (71.43% versus 19.05% p<0.001). Conclusions: Early occupational therapy may have an impact on the cognitive and functional recovery in adult patients with TBI mainly if the intervention started at INCU.