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FROM NEUROTECHNOLOGIES
TO COMMUNITY CARE

ABSTRACTS



WFNR

World Federation for NeuroRehabilitation



Indian Federation of NeuroRehabilitation



between group and within groups respectively. Statistically significant difference was found in TUG scores within CDP group (pre training score 53.13 ± 27.43 , post training score 42.04 ± 21.64 , $p < 0.015$)

Conclusions: Authors concluded that training on Computerized Dynamic Posturography has significantly better results in improving dynamic balance as measured by time up and go test in stroke patients when compared to overground balance training.

Abobotulinumtoxina injections in shoulder muscles: results from a real world (ULIS-II) and a phase 3 (AUL) study

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Objectives: Shoulder spasticity after stroke or traumatic brain injury (TBI) may cause pain and restrict joint range of motion (ROM). Few studies have investigated botulinum toxin injections into shoulder muscles for spasticity treatment. Here we present data for subpopulations of patients receiving shoulder injections of abobotulinumtoxinA in two international, multicentre clinical studies: phase-4 ULIS-II (Upper Limb International Spasticity Study-II; post-stroke spasticity; NCT01020500) study and phase-3 AUL open-label (Adult Upper Limb; post-stroke or -TBI spasticity; NCT01313299) study.

Methods: We present data for abobotulinumtoxinA shoulder-injected subpopulations. ULIS-II: selection and achievement of patient-centred primary goals. AUL study: Tardieu scale for passive ROM (X_{v1}), angle of catch (X_{v2}) and spasticity angle (X) for shoulder muscles; and Modified Frenchay Scale (MFS) for active function.

Results: In ULIS-II, 82 patients received abobotulinumtoxinA in shoulder muscles. Patients with shoulder injections selected the pain treatment goal twice as often as those without. Goal achievement for pain was 85.7%. In AUL study, 96 patients received ≥ 1 abobotulinumtoxinA injection in shoulder muscles, 60 of whom received ≥ 2 injections. Improvements in shoulder muscle spasticity were identified after first injection: mean change from baseline at Week 4 was $+8.1^\circ$ and $+15.4^\circ$ for X_{v1} and X_{v2} , respectively, and -7.3° for X (Figure 2). Patients with ≥ 2 shoulder injections showed greater improvements in X_{v2} and X. Improvements were also observed in active function (Week 4 Cycle 4: MFS: $+0.62$ [0.48]).

Conclusions: These studies consistently showed positive outcomes for patients receiving abobotulinumtoxinA shoulder muscle injections. Patients in ULIS-II reached a high level of achievement of the most-selected patient-centred goal (pain), and in the AUL study patients had decreased shoulder spasticity on all parameters of Tardieu scale, and improved active function (MFS).

High sensitivity CRP – A novel prognostic indicator for functional recovery in ischemic stroke

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Background: Stroke is the most common debilitating illness that has a longer duration of recovery phase. Previous studies have demonstrated that initial NIHSS stroke scale has a strong correlation with functional recovery in patients with stroke. High sensitivity CRP (hsCRP) is a novel marker for assessment of severity of stroke.

Objective: To study the correlation of hs- CRP with NIHSS stroke scale in predicting functional recovery in patients with stroke

Methods: 69 patients with a clinical presentation of acute ischemic stroke (48hrs of onset) without radiological evidence of intracerebral bleed were included in the study. NIHSS stroke scale was calculated for all patients. hs – CRP was analysed at the time of admission. Using chi square test of association, relationship between hs- CRP and NIHSS stroke scale were assessed. Quantification of functional impairment was done using NIHSS stroke scale and were categorized into 3groups Mild stroke (1-15), Moderate to severe stroke (16 – 20), Severe stroke (21-42).

Results: 49(33.8%) patients in group 1 had mean hsCRP value 2.9 ± 2.25 , Group 2 includes 11(7.59%) patient had mean value of hsCRP 7.32 ± 2.8 . Group 3 with 9 (6.21%) patients mean hsCRP value 8.7 ± 1.2 . All the 3 groups were showed positive correlation between higher hsCRP level had higher NIHSS score (correlation coefficient=0.6) with significant p value of < 0.01 .

Conclusions: It was observed that high initial hs – CRP correlated with the high NIHSS score and there is a strong positive correlation. This novel marker hs- CRP hence can be used as a prognostic indicator for functional recovery.

NEUROREHABILITATION IN DEVELOPING COUNTRIES, AUTONOMIC DYSFUNCTION (BOWEL, BLADDER, ETC.) & COMMUNICATIVE DISORDERS/APHASIA

Indian semi-classical Kathak and Bharatnatyam movements for balance confidence and quality of life in Parkinson's disease: Pilot rct.

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Objectives: Individuals with Parkinson disease (PD) show poor quality of life and decline in balance confidence. Indian semi-classical dance movements in PD might benefit their balance capacity. The objective of this study is to determine the effects of Indian semi-classical dance therapy on balance confidence and quality of life in individuals with PD.

Methods: This pilot randomized controlled trial was conducted in outpatient rehabilitation centres. Twenty-five individuals according to Hoehn and Yahr stage 1.5 to 3 with ability to follow simple commands and capacity to walk independently participated in Indian classical dance therapy (N=12) and standard physiotherapy (N=13). The dance movements were choreographed in sitting and standing positions and progressed by challenging their dynamic balance system such as standing on one leg and weight shifts with body rotations. Various hand gestures i.e. 'mudras' were incorporated through enacting stories.

