

Keywords: Chorea, Basal Ganglia, Hyperglycemia, C-H-BG Syndrome

doi:10.1016/j.jns.2019.10.1241

WCN19-0844

Journal of the Neurological Sciences 405S (2019) 104904

Poster Session 3

Assessment of cervical and ocular vestibular evoked myogenic potentials in multiple sclerosis(MS) patients

J. Mekky^a, D. Elmoazen^b, H. Kozou^c, M. Gawish^d

^aAlexandria University- Faculty of Medicine - AAN - AASM - ESRS Member, Neuropsychiatry, Alexandria, Egypt

^bAlexandria University, Otolaryngology, Alexandria, Egypt

^cAlexandria University, Otolaryngology, Alexandria, Egypt

^dAlexandria University - Faculty of Medicine, Otolaryngology, Alexandria, Egypt

Multiple sclerosis (MS) is one of the most important chronic neurological disease affecting the central nervous system and is the leading cause of disability due to brainstem affection. Vestibular evoked myogenic potentials (VEMPs) are short-latency muscle responses.

Cervical VEMP (Cvemp) is a demonstration of vestibule-colic reflex, while ocular VEMP (oVEMP) which is a manifestation of vestibulo-ocular reflexes.

Aim

The aim of this study was to assess cVEMP and oVEMP in MS patients with and without brainstem lesion(s) and comparing the findings with normal controls.

Subjects & methods

Both latency and amplitude of cVEMP (p13-n23) and oVEMP (n10-p15) were recorded in 10 healthy matched controls, 10 MS patients with BS lesion(s) and 10 MS patients without BS lesion(s). All patients underwent a complete audiological examination, clinical neurological evaluation and brain MRI scanning.

Results

The latency of P13-N23 and N10-P15 in MS participants with and without BS lesions were significantly prolonged compared to normal controls ($p \leq 0/05$). Additionally latency of P13-N23 and N10-P15 in patients of MS with BS lesion(s) were significantly prolonged compared to patients without BS lesion(s) ($p \leq 0.05$). No relationship was found between the clinical state and VEMP responses. No relationship was found between the radiological findings of the patient and VEMP responses except for the group of MS with BS affection. A good correlation was found between VEMP latencies and EDSS.

Conclusion

Abnormality of cervical VEMP and ocular VEMP in patients of Multiple Sclerosis with brainstem lesion(s) are more frequent than in patients of Multiple Sclerosis without brainstem lesion(s).

doi:10.1016/j.jns.2019.10.1242

WCN19-0845

Journal of the Neurological Sciences 405S (2019) 104905

Poster Session 3

Dexterity, attention and working memory in patients with Parkinson's disease

N. Çetişli Korkmaz^a, M. Duray^a, D. Topçu^a, T. Can Akman^a, H.F. Gündüz^a, L.S. Bir^b

^aPamukkale University, School of Physical Therapy and Rehabilitation, Denizli, Turkey

^bFaculty of Medicine, Neurology, Denizli, Turkey

Objective

Disturbed manual dexterity is common among patients with Parkinson's Disease (PD), even in early stages of the disease and may be less responsive to pharmacological treatment. Cognitive impairments are associated with old age and severe motor symptoms and occur mostly in the later stages. The aim of this study is to investigate hand dexterity, attention and working memory and their association in patients with PD.

Methods

PD patients were grouped according to Hoehn and Yahr staging as early-stage (1-2, Group1; $n = 16$) and mid-stage (3-4, Group2; $n = 16$) Hand dexterity, attention and working memory were assessed with Nine Hole Peg Test (NHPT), Stroop Color-Word Test (SCWT) and subtests of Wechsler Memory Scale-Revised (WMS-R), respectively.

Results

The mid-stagers' NHPT, Logical Memory-II subtest of WMS-R and SCWT scores were worse than early-stagers' ($p < .05$). However, it was seen that the groups had similar properties in terms of WMS-Digit Span ($p > 0.05$). The relation between left hand dexterity (NHPT), attention and memory were significant ($p < .05$). While the stage of PD was correlated with NHPT, SCWT and WMS-Logical Memory I ($p < .05$), we could not find a significant relationship with the rest of WMS-R subtests ($p > .05$).

Conclusion

Dexterous impairment leads to difficulties in activities of daily living (ADL) that require fine motor skills, especially with the progression of the PD's stage. These could be in association with the deficient cognitive performance, which could be appear in early-stage PD patients. Cognitive assessment and dexterity could be in the context of assessment and treatment of PD patients from the early terms with multidisciplinary approach.

doi:10.1016/j.jns.2019.10.1243

WCN19-0849

Journal of the Neurological Sciences 405S (2019) 104906

Poster Session 3

ICF biopsychosocial model for self-care perspective to understand the dexterity and independence in patients with multiple sclerosis

T. Can Akman^a, L.S. Bir^b, N. Çetişli Korkmaz^a, F. Yazar^a
^aPamukkale University, School of Physiotherapy and Rehabilitation, Denizli, Turkey
^bNeurology, Denizli, Turkey

Objectives

Multiple Sclerosis(MS) leads to impaired function and limited participation in activities and self-care, which impact life-quality and independence, directly. The International Classification of Functioning, Disability and Health(ICF), provides standard language and framework for description of health and health-related state with biopsychosocial model. Appropriate measures compatible with content of ICF is a parallel need in documenting the impact and nature of limitations of function, activities and participation. The aim of this study was to determine the relation of hand function and independence with ICF's self-care subcomponent in patients with Multiple Sclerosis(MS).

Methods

Seventy-nine MS patients with 3.41 ± 0.92 mean EDSS score and 8.42 ± 5.32 years' disease duration, included. ICF's subcomponent of self-care, Jamar Hydraulic Hand Dynamometer(JHHD), Nine-Hole Peg Test(NHPT) and Functional Independence Measure(FIM) used for assessment protocol.

Results

Right-handed 72 patients' mean NHPT and JHHD scores were 27.35 ± 10.16 and 52.56 ± 18.65 . Relationships of JHHD, NHPT and FIM(except toileting) with ICF's self-care subcomponents(eating, caring for body parts, washing oneself, toileting, putting on clothes, putting on footwear) were significant($p = .001$).

Conclusions

ICF is a useful tool for multidisciplinary approach, which can promote the communication and collaboration in the healthcare team by establishing a common language across different disciplines. ICF could be an essential tool in identifying and measuring efficacy and effectiveness of assessment and treatment approaches, both through functional profiling and intervention targeting on self-care and independence in MS. Research about motor behaviour of the upper limb in MS patients

undergoing neurorehabilitation could focus on comprehensive assessment with biopsychosocial model, which is an unexplored field.

doi:10.1016/j.jns.2019.10.1244

WCN19-0854

Journal of the Neurological Sciences 405S (2019) 104907

Poster Session 3

A 3-year observation of excessive daytime sleepiness after subthalamic deep brain stimulation in patients with Parkinson's disease

Y.J. Jung^a, H.J. Kim^b, W.W. Lee^c, G. Ehm^d, T.J. Lee^a, S.Y. Ryu^a, S.B. Lee^a, B. Jeon^b
^aDaejeon St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Neurology, Daejeon, Republic of Korea
^bParkinson Study Group and Neuroscience Research Institute, College of Medicine, Seoul National University, Neurology, Seoul, Republic of Korea
^cNowon Eulji Medical Center, Eulji University, Neurology, Seoul, Republic of Korea
^dNational Medical Center, Neurology, Seoul, Republic of Korea

Background and purpose

We aimed to assess the longitudinal changes of the quality of sleep and excessive daytime sleepiness (EDS) in PD patients undergoing STN DBS and identify which factors are associated with the presence of EDS before and after STN DBS.

Methods

A total of 33 PD patients who underwent bilateral STN DBS between July 2011 and October 2015 were recruited. We evaluated subjective sleep quality assessed by Parkinson's Disease Sleep Scale (PDSS) and EDS using Epworth Sleepiness Scale (ESS) preoperatively

