OLEH HORNYKIEWICZ (1926–2020): SIXTY YEARS SINCE THE PIONEERING L-DOPA APPLICATION - ONE YEAR SINCE THE DEATH OF THE PIONEER

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Oleh Hornykiewicz was born on November 17, 1926 in Lamberg, Ukraine. After completing his studies in July 1951, he moved to the "Pharmacological Institute of the University of Vienna". In 1958, he started his research on centrally acting drugs at the same institute and came up with the idea of linking laboratory observations with animals with the basal ganglia of the human brain. Soon, Hornykiewicz initiated a new question: L-DOPA as a therapy for Parkinson's disease? Fortunately, after administration of this new drug, patients were able to perform motor activities which could not be prompted to any comparable degree by any known drug. In the following decades, initial fiction became an unavoidable fact. Dopamine, adapted and combined with carbidopa or benzerazide, has evolved into a drug that no longer recognizes the borders of countries and continents. Distinguished emeritus prof. Oleh Hornykiewicz died on May 26, 2020 at the age of 93 in Vienna, Austria. Unfortunately, despite everything he has done and deserved, the Nobel Prize was not received.

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THE IMPACT OF DISEASE ACTIVITY ON QUALITY OF LIFE, FATIGUE, FUNCTIONAL STATUS AND PHYSICAL ACTIVITY IN PATIENTS WITH ANKYLOSING SPONDYLITIS

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Background: Inflammatory back pain and stiffness are the leading symptoms of ankylosing spondylitis (AS). AS progression leads to substantial functional impairment and can reduce quality of life (QoL). The aim of this study was to determine the impact of disease activity on QoL, fatigue, functional status and physical activity.

Subjects and methods: One hundred and fifty AS patients were included in the study, their body mass index (BMI) was calculated and they completed questionnaires regarding disease activity (The Bath Ankylosing Spondylitis Disease Activity Index, BASDAI) functional status (The Bath Ankylosing Spondylitis Functional Index, BASFI) spinal mobility (The Bath Ankylosing Spondylitis Metrology Index, BASMI), physical activity (the International Physical Activity Questionnaire, IPAQ), functional disability (The Health Assessment Questionnaire Disability Index, HAQ-DI), fatigue (The Functional Assessment of Chronic Illness Therapy – fatigue, FACIT-F) and QoL (The Short Form Survey -36, SF-36).

Results: Patients with inactive disease (BASDAI <4) had significantly better HAQ scores (p=0.001), SF-36 mental component scores - MCS (65.68±19.54 inactive vs. 46.89±21.78 active disease, p=0.001), SF-36 physical component scores - PCS (median score 56.25 inactive vs. 30.00 active disease, p=0.001) and FACIT-F scores (38.49±10.62 inactive vs. 26.21±10.81 active disease, p=0.001). There was no significant difference in patient's physical activity or BMI regarding disease activity (p=0.564 and p=0.162 respectively). Also, there was no significant difference in BASDAI, BASMI or BASFI scores regarding different BMI categories (p=0.818, p=0.474, p=0.436, respectively).

Conclusion: AS activity increased fatigue, impaired functional ability and QoL, especially the physical component. Although more than half (61.4%) of our patients were categorized as pre-obese or obese according to BMI, this was not related to disease activity, spinal mobility or daily functioning scores. Reported physical activity level had no effect on disease activity. Disease activity influences the course of AS and QoL assessment should be implemented into regular AS evaluation in order to improve treatment outcome.

Key words: ankylosing spondylitis - quality of life – fatigue - physical activity - body mass index

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DOES SLEEP APNEA AFFECT THE OUTCOME OF STROKE PATIENTS?

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Background: Sleep apnea is described as an isolated risk factor for stroke or recurrent stroke which could be cause of death. In our study, the aim was to determine whether sleep apnea affects the outcome of stroke patients.

Subjects and methods: This is a prospective study in which a group of 110 patients in the acute phase of a stroke was evaluated sleep apnea. Acute stroke has been diagnosed either by computed tomography and magnetic resonance imaging of the brain. There was no significant difference in patient's age with or without sleep apnea neither in men nor women. Neurological, neuropsychiatric, pulmonary test were performed in all patients at five different time periods. In these time periods, all patients were evaluated: Glasgow scale, The American National Institutes of Health Scale Assessment, Mini Mental Test, The Sleep and snoring Questionnaire Test, The Berlin Questionnaire Test, The Epworth Sleepiness Scale, The Stanford Sleepiness Scale and The general sleep questionnaire.

Results: One year after the onset of stroke, 91 (82.7%) of 110 patients with apnea survived. The survival rate of patients with sleep apnea is significantly lower than without sleep apnea (p=0.01). In men with apnea, the survival rate was significantly lower in patients without apnea (p=0.004). The largest number of survivors of apnea had diabetes mellitus, followed by survival of patients with heart disease, body mass index > 29 kg/m2 and hypertension, with hyperlipoproteinemia and smoking. The highest number of survivors without apnea was body mass index > 29 kg/m2, followed by survival of patients with hyperlipoproteinemia, heart disease, hypertension, smoking, and diabetes mellitus.

Conclusion: Patients with sleep apnea have a significant correlation in survival rates compared with sexually and age-matched subjects, associated with concomitant risk factors such as hypertension, body mass index, and smoking.

Key words: outcome – stroke - sleep apnea

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TRANSDISCIPLINARY APPROACH IN TYPE I NEUROFIBROMATOSIS - A CASE REPORT AND REVIEW OF PSYCHIATRIC DISORDERS

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Background: Neurofibromatosis type 1 (NF1) is an autosomal dominant a multisystem genetic disorder that primarily involves the skin and the nervous system. The incidence of the disease is 1:3000-4000 live-born children, equally in both sexes.The diagnosis of NF1 is determined individually with any two of the following clinical features: café-au-lait spots, intertriginous freckling, Lisch nodules, neurofibromas, optic glioma, distinctive bone lesions and first-degree family relative with NF1. NF1 is a disease most commonly diagnosed and treated by neuropediatricians.

Results: Cognitive and behavioral disorders affect between 50-80% of all children with NF1. Children with NF1 show impairments in attention, visual perception, language, executive function, academic skills, and behavior. This requires a multidisciplinary approach to the treatment s as seen in the case we present. Furthermore, NF1 is often associated with psychiatric disorders, which are more frequent in this disease than in general population, according to some studies even up to 33% patients. Psychiatric disorders are more frequent in NF1 than in the general population, particularly in children. They include dysthymia, depressive mood, anxiety, and personality disorders. Bipolar mood disorders or schizophrenia are rather rare. The majority of studies have focused on physical health and neurocognitive function in NF1, whereas psychiatric disorders associated with this disease remain unclear and poorly documented.

Conclusions: We present a case of an eight-year-old boy with behavioural and learning disabilities referred for psychological and psychiatric evaluation as well as an overview of NF-related psychiatric illnesses described in the literature.

Key words: neurofibromatosis- mental disorders - cognitive difficulties – ADHD - autism

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