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Visual complaints and disorders in patients with Parkinson's disease

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Basal ganglia are connected to dorsal prefrontal and orbitofrontal structures, which have an important role in emotional experience. The aim of our study is to examine the relation of alexithymia with cognition and depression in non-demented patients with Parkinson's disease (PD).

Fifty consecutive non-demented patients PD and 50 healthy controls were enrolled in the study. The Turkish version of the Montreal Cognitive Assessment scale (MOCA-TR), 20-item Toronto Alexithymia Scale (TAS-20) (F1, F2, F3 subgroups), and Beck Depression Inventory (BDI-I) were used to evaluate cognitive functions, alexithymia, and depression, respectively, in both groups.

The total TAS-20 score was 55.71 ± 19 in the PD group and 46.33 ± 8.21 in the control group. There was a statistically significant difference in the total TAS-20 scores between the groups ($p < 0.001$). In subgroups of alexithymia, all mean scores of F1, F2, and F3 were higher in the PD group ($p = 0.019$, $p < 0.001$, and $p = 0.005$, respectively). In the MOCA-TR test, the mean scores in visuospatial and delayed recall of patients with PD were statistically lower than in the control group ($p = 0.044$ and $p = 0.04$, respectively) (Table). The MOCA-TR and BDI total scores were significantly correlated with TAS-20 total scores. In subgroup analysis, we only found an association between the visuospatial domain of MOCA-TR and the F3 subgroup of TAS-20 ($r = -0.22$, $p = 0.03$).

Dopamine depletion in the anterior cingulate cortex (ACC) and orbitofrontal cortex of the frontal lobe, areas important for emotional cognition, maybe the underlying reason in alexithymia. Memory functions are not correlated with alexithymia, but, in contrast to previous literature, we suggest that F3, the cognitive domain of alexithymia, may be associated with visuospatial function and may originate from a wider area than the ACC.

A 057

VISUAL COMPLAINTS AND DISORDERS IN PATIENTS WITH PARKINSON'S DISEASE

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Visual disorders of patients with Parkinson's disease (PD) are often not well documented. Consequently, these disorders may be underestimated and patients might not receive appropriate care, resulting in a decline of quality of life. Therefore, we aim to explore the prevalence, nature and severity of visual complaints and visuo-perceptual disorders in patients with PD.

We developed a 19-item questionnaire to screen for visual complaints (Huizinga et al., 2020), which was used as a referral tool for further care. In total, 350 patients and 1054 healthy controls completed the questionnaire. Based on reported visual complaints, 35 patients were referred for visual rehabilitation. These patients were administered the DiaNAH test battery for visual perception (De Vries et al., 2018).

Around 90% of patients reported to have one or more visual complaints. The most common complaints were blurry vision, having difficulty focusing and having difficulty reading, which were experienced by more than half of the patients. Altered color perception and experiencing visual field loss were least common, but nevertheless experienced by around 10% of patients. All complaints were more common or more severe in patients compared to healthy controls. DiaNAH test scores suggest that the most frequently occurring disorder was limited visuomotor speed and visual search in a complex task, found in over half of the patients. Diminished figure-ground perception, visuo-cognitive load, and visuospatial functioning were also found in almost half of the patients. Compared to normative data of healthy individuals, patients attained an abnormal score on an average of 3 out of 11 tests.

Visual complaints are very common among patients with PD. Furthermore, a range of visual perceptual disorders commonly occur in patients with PD referred for visual care and rehabilitation. Recognition and knowledge of these visual complaints and disorders are important in order to improve quality of care and rehabilitation.

A 059

PREDICTORS OF QUALITY OF LIFE IN PARKINSON'S DISEASE

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Objective: Parkinson's disease (PD) is characterized by both motor and non-motor symptoms that have a negative impact on PD patients' quality of life (QoL). The aim of the study was to analyze which are the best predictors of QoL in PD patients.

Methods: Ninety-nine PD patients underwent an extensive neuropsychological evaluation assessing attention, verbal memory, visual memory, working memory, visuoconstructive skills and processing speed. A neurocognition composite score was created by calculating z-scores with these variables. Anxiety and depressive symptoms were evaluated with Hospital Anxiety and Depression Scale (HADS) and fatigue with Fatigue Severity Scale (FSS). QoL was assessed with Parkinson's Disease Questionnaire (PDQ-39), which is a self-reported scale with several dimensions: Total index, mobility, activities of daily living (ADL), emotional well-being, stigma, social support, cognition, communication and bodily discomfort. Rho Spearman correlation was conducted to determine the relationship between the PDQ-39, neurocognition, anxiety and depression. Multiple stepwise regression analysis was used to analyse the role of cognition and clinical symptoms in the QoL of PD patients.

Results: Significant correlations were found between several domains. Multiple regression analysis showed that PDQ-39 index was predicted by anxiety ($\beta = .42$; $p < .001$), fatigue ($\beta = .23$; $p = .009$) and neurocognition ($\beta = .23$; $p = .048$). Regarding dimensions, mobility was predicted by fatigue ($\beta = .37$; $p < .001$). Emotional well-being ($\beta = .72$; $p < .001$), social support ($\beta = .40$; $p < .001$) and cognition ($\beta = .31$; $p = .004$) was predicted by anxiety. Finally, bodily discomfort was predicted by anxiety ($\beta = .43$; $p < .001$) and fatigue ($\beta = .20$; $p < .001$).

Conclusions: Findings suggest that fatigue, neurocognition and anxiety are the main predictors of QoL for people with PD, being anxiety the predominant predictor symptom in most dimensions. The control of cognitive processes and clinical variables through non-pharmacological interventions could improve the QoL of people with PD.

A 061

THE RELATIONSHIP BETWEEN HYPERCRITISOLEMIA AND IMPAIRED BIOIMPEDANSITOMETRIC PARAMETERS AND ITS ROLE IN THE DEVELOPMENT OF COGNITIVE IMPAIRMENT IN PARKINSON'S DISEASE

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Objective: Cognitive disorders in Parkinson's disease (PD) are associated with increased serum cortisol levels and this problem has been widely studied in recent years.

Background: Changes in bioimpedansitometric indicators in PD and serum cortisol levels have not been fully studied.

Materials and methods: Scientific research has been conducted since 2015 among 102 hospitalized patients of the Department of Neurology of 1 clinic of the Tashkent Medical Academy. Of these, 61 are men and 41 are women. The average age of the patients was 57.2 ± 3.42 years. All patients underwent clinical neurological anamnestic examinations. Patients were examined with cortisol in the morning, and patients were tested on a bioimpedansitometer. Cognitive status was assessed on the MMSE scale.

Results: Of the 102 patients examined, 67 patients (65.9%) found that cortisol levels were higher than normal in these patients, while MMSE ranged from 10 to 24 points, with bioimpedansitometric results in patients of this group: normal or decreasing body mass index, bone loss mass, metabolic age. The patient's age, a decrease in the proportion of water in the body, muscle mass is below normal. In 21 patients with a normal level of cortisol, MMSE was 22-