

Measures: 153 consecutive non-demented PD patients were enrolled. At baseline, data were collected on socio-demographic background, functional status was evaluated by the UPDRS motor part and fatigue was assessed by Multidimensional Fatigue Inventory (MFI) general fatigue part. Mortality was documented up to 7.5 years of follow-up. Cox regression analysis was done to explore if fatigue predicts mortality; the analysis was controlled for age, gender and UPDRS motor score.

Results: Out of 153 patients, 45 (29.4%) have died during the follow up period. The average age at death was 80.2 years and mean time from disease diagnosis to death was 12.4 years. Independent predictors of mortality in our study were age (HR 1.98 for 10-years increase, 95%CI 1.44; 2.56, $p < 0.001$), UPDRS motor score (HR 1.48 for 10-point increase, 95%CI 1.18; 1.79, $p = 0.002$) and male sex (HR 2.04, 95%CI 1.10; 3.80, $p = 0.024$). General fatigue was a predictor of mortality on crude analysis when controlled for age and gender only, but failed to be an independent predictor of mortality when adjusted for age, gender and UPDRS motor score.

Conclusion: Fatigue is not an independent predictor of mortality in Parkinson's disease.

1.049

CORRELATION BETWEEN CLINICAL CHARACTERISTICS AND SLEEP DISTURBANCES IN PARKINSON'S DISEASE

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Introduction: Sleep disturbances are one of the most common nonmotor symptoms of Parkinson's Disease (PD). The causes of sleep disturbances in PD are numerous, and many patients may have several factors that contribute to such symptom.

Object: The objective of this study is to evaluate an association of various sleep disturbances with clinical characteristics, cognitive impairment and depression in PD.

Method: A total of 82 patients with PD (32 males, age 66.8 ± 8.5 years, mean duration 48.1 ± 41.1 months) were recruited. All patients performed cognitive test, Back Depression Inventory and various sleep questionnaires such as Epworth Sleepiness Scale (ESS), Insomnia Severity Index (ISI), Pittsburgh Sleep Quality Index (PSQI), Parkinson's Disease Sleep Scale (PDSS).

Result: BDI was correlated with ISI ($p = 0.003$), PSQI ($p = 0.01$), and PDSS ($p = 0.001$) especially sleep initiation, restless leg symptom, nocturnal sensory symptom subscore. MMSE and MoCA were correlated with PDSS ($p = 0.04$ and $p = 0.026$), especially dreaming subscore.

Conclusion: The results suggest that depression may attribute to sleep initiation difficulty, restless leg symptom, and nocturnal sensory symptom. Cognition impairment is related to vivid dreaming.

1.050

SLEEP DISORDERS IN PATIENTS WITH PARKINSON'S DISEASE

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Research was aimed to evaluate correlation between evidence of excessive daytime sleepiness (EDS) and rapid eye movement (REM) sleep behavior disorder (RBD) with cognitive impairment and hallucinations.

Twenty six patients (F/M = 11/15, 66.6 ± 7.8 years old) with PD having subjective complaints of sleep disorder were studied. Patients were rated with the following scales: MMSE, FAB, PDSS, ESS. 17 patients underwent a polysomnography (PSG).

EDS was revealed in 22 patients (84.5%). The scale mean values were: ESS scores 9.5 ± 4.9 , 15th subscale of PDSS was 4.5 ± 3.3 . Cognitive impairment (MMSE score 24.0 ± 3.2 and FAB - 11.1 ± 4.4) and hallucinations (PDSS7 was 6.5 ± 2.9) were detected in these patients. Negative correlations between ESS and FAB ($r = -0.44$;

$p < 0.05$), ESS and 7th subscale of PDSS ($r = -0.56$; $p < 0.05$) were determined. Results of EDS on scales corresponded to results of PSG: mean LS was 9.7 ± 5.1 min. with fast transition to stage II of sleep. ESS scores significantly negative correlated with LS scores ($r = -0.62$; $p < 0.05$). Quality of a night dream was unsatisfactory at all patients: PDSS was 76.4 ± 18.5 . In 16 (93%) of 17 patients who had had PSG a sleep structure was disruption with fragmentation, decrease in sleep quality as increasing the wake time during sleeping, reduction of its efficacy (TST/TIB $57.3 \pm 12.3\%$) were determined. 12 (80%) patients had RBD. The degree of cognitive impairment in this group was significant higher: the MMSE score - 22.3 ± 4.3 , FAB - 6.2 ± 3.1 ($p < 0.05$).

Sleep disorders correlate with degree of cognitive impairment and presence of hallucinations

1.051

INSOMNIA IS LINKED MORE TO AFFECTIVE THAN MOTOR SYMPTOMS IN PARKINSON'S DISEASE

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Objectives: To assess role of insomnia in relation to affective and motor symptoms and activities of daily living (ADL) in Parkinson's disease (PD).

Methods: Forty-eight PD patients aged 42–79 (mean=63.3, F=47.9%) were evaluated. PD was diagnosed according to UK PDSBB criteria. Patients passed evaluation through UPDRS, Hoehn & Yahr (H&Y) staging and Schwab & England ADL Scale. Depression and anxiety were assessed by Hamilton Depression (HAMD) and Anxiety (HAMA) scales. Patients were divided into 2 groups: with and without insomnia complaint.

Results: Thirty-six patients had insomnia (75%). Insomniac PD patients had significantly higher rates on HAMD (19.9 vs. 9.2, $p < 0.001$), HAMA (16.2 vs. 7.8, $p < 0.005$), higher rates of UPDRS domains I (Mentation and mood) (4.3 vs. 2.7, $p < 0.03$) and II (ADL) (14.9 vs. 9.7, $p < 0.03$) and also lower rates of ADL scale scores (73.9 vs. 86.7%, $p = 0.014$) in comparison with non-insomniac PD patients. There was no statistically significant difference between groups regarding H&Y stage (2.3 vs. 1.9, $p = 0.082$), UPDRS domain III (motor examination) (30.4 vs. 24, $p = 0.2$) and UPDRS total score (49.7 vs. 35.8, $p = 0.52$). Eight out of 23 females (34.8%) and 5 out of 25 males (20%) had insomnia.

Conclusion: According to our results insomnia is prevalent among PD patients. Insomnia seems to be closely related to depression and anxiety in PD. Female sex may be more predisposed to insomnia in PD. ADL was significantly impaired in PD patients with insomnia. Interestingly, insomnia did not have considerable relation to disease severity and motor disability in our sample.

1.052

SLEEP DISORDERS IN DIFFERENT CLINICAL SUBGROUPS OF PARKINSON'S DISEASE

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Objective: This study sought to evaluate quality of sleep in patients with different subtypes of Parkinson's disease (PD) and analyze their clinical characteristics and related factors.

Methods: 107 consecutive patients with idiopathic PD, including 47 patients with the tremor-dominant PD subtype and 60 patients with the postural instability and gait difficulty (PIGD)-dominant subtype, were interviewed and assessed using Parkinson's Disease Sleep Scale (PDSS) & Epworth Sleepiness Scale (ESS), Unified Parkinson's Disease Rating Scale (UPDRS), Hamilton Depression Rating Scale (HAMD), and Mino-mental State Examination (MMSE).

Results: The total PDSS score in the PIGD-dominant subtype (115.72 ± 19.28) was significantly lower than that in the tremor-dominant subtype (125.28 ± 13.68 , $P = 0.003$). Alternatively, the