

The Clinical Characteristics and Their Relationship with Sleep Disorders in Patients with Parkinson Disease Accompanied with Cognitive Impairment

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Abstract : Objective To investigate the clinical characteristics and changes of video-polysomnography (v-PSG) in Parkinson disease (PD) patients accompanied with cognitive impairment. Methods Three hundred and ninety-four patients with PD were enrolled in Beijing Tiantan Hospital, according to CI level, the patients were divided into PD without cognitive impairment (PD-NCI), PD with mild cognitive impairment (PD-MCI), and PD with dementia (PDD) group. Collect patient's demographic data, including gender, onset age, education level and duration. The cognitive function of PD patients was evaluated by Montreal cognitive assessment (MoCA) scale, and the overall cognitive function and cognitive domains of the three groups were compared. Using v-PSG to assess the sleep status of patients. Correlation analysis of MoCA Scale and v-PSG results in PD-CI group. Results 1. In 394 cases of PD, 94 cases (23.86%) in PD-NCI group, 177 cases (44.92%) in PD-MCI group, 123 cases (31.22%) in PDD group. 2. There was no significant difference in gender, age of onset, education level and duration in PD-NCI group, PD-MCI group and PDD group [$P > 0.05$]. 3. The total score of MoCA scale in PD-NCI group, PD-MCI group and PDD group decreased one by one. In PD-NCI group, PD-MCI group and PDD group, the scores of each cognitive domain in MoCA scale decreased significantly [$P < 0.05$]. 4. Compared with the PD-MCI group, PDD group had lower total sleep time, lower sleep efficiency [$P < 0.05$]. Compared with PD-NCI group, PDD group had lower total sleep time and lower sleep efficiency [$P < 0.05$]. 5. The sleep efficiency of PD-CI patients is positively correlated with the total score of MoCA scale, visual spatial function, executive function, delayed recall and attention score [$P < 0.05$]. Conclusions The incidence of CI in PD patients was high; The cognitive function and cognitive domains of PD-CI patients were significantly impaired; In patients with PD-CI, total sleep time decreased, sleep efficiency decreased, and it was related to overall cognitive function and partial cognitive impairment.

Keywords : Parkinson disease, cognitive impairment, clinical characteristics, sleep disorders, video-polysomnography

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