

Sleep disturbances in Malaysian patients with Parkinson's disease using polysomnography and PDSS.

ABSTRACT

Background: Sleep disturbances such as sleep fragmentation, sleep disordered breathing (SDB), periodic limb movements (PLM), excessive daytime somnolence (EDS) and insomnia are prevalent in Parkinson's disease (PD). However, studies in the Asian population are limited. Methods: This was a cross-sectional study involving 46 Malaysians with PD using polysomnography (PSG) and standardized translated Parkinson's disease sleep scale (PDSS). Overnight PSG recordings, UPDRS and PDSS scores, and baseline demographic data were obtained. Results: Data from 44 patients were analysed. Thirty-six patients (81.8%) had PSG-quantified sleep disorders. Twenty-three (52.3%) had sleep fragmentation, 24 (54.6%) had SDB and 14 (32%) had PLM. EDS was present in 9.1%. Insomnia was reported by 31.8%. Patients with sleep fragmentation had significantly higher UPDRS scores and lower PDSS insomnia sub-scores. The UPDRS scores correlated negatively with the TST and sleep efficiency. All patients with EDS had SDB ($p = 0.056$). The PDSS insomnia sub-items correlated with sleep fragmentation on PSG. Conclusion: The prevalence of sleep disorders based on PSG and PDSS in our PD patients was high, the commonest being sleep fragmentation and SDB, while EDS was the least prevalent. Problem specific sub-items of the PDSS were more accurate in predicting the relevant PSG-related changes compared to the PDSS as a whole.

Keyword: Daytime somnolence; Insomnia; Parkinson's disease; Parkinson's disease sleep scale; Polysomnography; Sleep disorders.