Sleep-disordered breathing in patients with Parkinson's disease.

ABSTRACT

Introduction: There are limited studies reporting the frequency of sleep-disordered breathing (SDB) in Parkinson's disease (PD), and the figures quoted are variable, ranging from 2.5 to 66 percent. This study aimed to determine the prevalence and types of SBD in PD patients attending the Universiti Kebangsaan Malaysia Medical Centre neurology clinic, and the correlation between the subjective sleep symptoms using the Parkinson's disease sleep scale (PDSS) and the objective measurements using polysomnography (PSG). Methods: This was a cross-sectional study involving 46 PD patients over a period of six months. The patients' demographic data, Hoehn and Yahr staging and PDSS scores were collected. The patients were then subjected to overnight PSG using the Somnomedic system. Results: There were 27 male and 19 female patients with a mean age of 64.0 +/-9.7 years. 29 were Chinese, 15 Malay and 2 Indian. The mean duration of illness was 5.8 +/-4.3 years. The mean PDSS score was 120.3 +/-13.5. SDB was found in 54.6 percent of the patients (apnoea-hypopnoea index [AHI] 5 and above), with 27.3 percent having moderate and severe SDB (AHI 15 and above). The median AHI was 6.7 (range 0-40.4). The prevalence of SDB in PD patients based on the AHI cutoffs were 27.3 percent for mild, 18.2 percent for moderate and 9.1 percent for severe. There were statistically significant positive correlations between the AHI and the neck circumference and between the AHI and the waist-hip ratio. There was no significant correlation between the AHI and PDSS, or the AHI and disease severity. Conclusions: There was a high prevalence of SDB in our PD patients, which was comparable to other studies. Obstructive sleep apnoea was the dominant type of SDB. There was no correlation between the subjective sleep symptoms using the PDSS and the objective measurements using PSG.