Is REM Sleep Behavior Disorder Associated with Excessive Daytime Sleepiness in Military Veterans with Parkinson's Disease?

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Objective
To determine if REM sleep behavior disorder (RBD) is associated with excessive daytime sleepiness (ES) in military Veterans with Parkinson's disease (PD).

Background
Nearly half the patients with PD suffer from ES and approximately the same proportion is believed to have RBD. However, the association between both has not been formally studied.

Methods
105 Veterans with PD followed in our movement disorders clinic were evaluated for the presence of RBD using the English language version of the REM Sleep Behavior Questionnaire—Hong Kong (RBDQ-HK) [cut off score 18/19]. Groups with and without RBD were assessed for pathological daytime sleepiness using the Epworth Sleepiness Scale (ESS) [cut off score 10]. PD disease severity and cognition were assessed using Hoehn and Yahr rating scale (H&Y) and Unified Parkinson's Disease Rating Scale (UPDRS), respectively.

Results
REM sleep behavior disorder (RBD) was present in 53 (50.5%) of the subjects and excessive daytime sleepiness was seen in 66 (62.9%). There was no statistically significant difference in the distribution of ES in subjects with 35/53 (66.0%) or without 31/52 (59.6%) RBD, $\chi^2=0.23, p=0.63$ [mean ESS score 11.5±4.5 vs. 10.8±4.8, respectively]. Both groups were comparable with respect to disease severity (H&Y, median=2.0 for both), cognition (UPDRS Question 1, median=1 for both) age, and ethnicity.

Conclusion
Military Veterans with Parkinson’s disease have a high prevalence of both REM sleep behavior disorder and pathological daytime sleepiness. In this group, the presence of RBD does not appear to be associated with excessive daytime sleepiness. Additional work is needed to confirm these findings.