447 - Risk factors associated with sleep disturbance in a general elderly Japanese population: The Arao Cohort Study.

Authors: Kazuki Honda, Tomohisa Ishikawa, Ryuji Fukuhara, Seiji Yuki, Yusuke Miyagawa, Asuka Koyama, Yosuke Hidaka, Shuken Boku and Minoru Takebayashi

Department of Neuropsychiatry, Faculty of Life Sciences, Kumamoto University,
1-1-1 Honjo, Chuo-ku, Kumamoto 860-8556, Japan

[Background] Sleep disturbance is a common symptom in elderly people. However, the associated risk factors have not been completely clarified. We examined possible risk factors associated with sleep disturbance in a community-based Japanese cohort study.

[Methods] 1521 community-dwelling individuals aged 65 years or older were selected from a consecutive series at a cohort study from 2016 to 2018 in Arao city, where located at south part of Japan. In this survey, the clinical valuables were collected as follows: age, sex, occupational status, education, lifestyle information, medical history, EuroQoL(EQ)-5D (a score of health-related quality of life [QOL]), Barthel index (a score of performance in activities of daily living), a score of Geriatric Depression Scale (GDS) and a score of Mini-Mental State Examination (MMSE). Sleep disturbance was assessed by the Pittsburgh Sleep Quality Index (when the global score was 6 or over, sleep disturbance was determined to be present). Multiple logistic regression analysis was used to examine the association between clinical valuables and sleep disturbance. This research was supported by AMED (Japan Agency for Medical Research and Development) under Grant Number JP18dk0207025h0003 and has been approved by the research ethics committee of Kumamoto University. Informed consent was obtained from all participants and their family members.

[Results] Multiple logistic regression analysis revealed that Parkinson disease (Odds ratio[OR]=5.59), living alone (OR=1.93), liver disease (OR=1.89), hyperlipidemia (OR=1.36), higher score of GDS (OR=1.14), lower scores of both EQ-5D index (OR=1.11) and Barthel index (OR=1.03) were significantly associated as risk factors with sleep disturbance. Unexpectedly, lower score of MMSE was not a significant risk factor.

[Conclusion] These results suggest that several physical illnesses, solitude, depressive symptoms and lower QOL, but not cognitive impairment, might be crucial risk factors associated with sleep disturbance in elderly population.