

group included subjects whose IRLS scores were less than 10 after 4-week treatment, and the poor-responder group included those whose IRLS scores were 10 or over. (1) HAM-A scores were compared between the responder group and the poor-responder group. (2) In the poor-responder group, YKS was prescribed in combination with pramipexole. We also examined the effect of pramipexole and YKS (4 weeks) on IRLS, HAM-A, PSQI, and ESS. The local IRB approved this study. All patients gave written consent according to institutional guidelines and the tenets of the Declaration of Helsinki.

Results: There was no difference in basal IRLS scores between two groups. The mean HAM-A score after pramipexole treatment in the poor-responder group (n=9) was higher than that in the responder group (n=24). Treatment with pramipexole and YKS for 4 weeks improved RLS and anxiety symptoms.

Conclusions: Anxiety symptoms may affect the treatment outcome in patients with RLS. YKS was demonstrated to be effective for RLS and comorbid anxiety symptoms.

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Risk factors of insomnia in cancer patients who referred to psychooncology clinic

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Abstract

Purpose: Insomnia is one of the most prevalent symptoms experienced by cancer patients. The goal of this study was to investigate the severity of insomnia and the risk factors of insomnia in cancer patients who referred to specialized psychooncology clinic.

Method: A total of 167 cancer patients who referred to psychooncology clinic in Ajou University Hospital was investigated. Insomnia was measured using the Insomnia Severity Index (ISI). For the investigation of risk factors, we considered demographic factors, clinical factors, Distress Thermometer (DT), Functional Assessment of Cancer Therapy – General (FACT-G), and Hospital Anxiety and Depression Scale (HADS). The risk factors of insomnia were evaluated using multiple regression analysis.

Results: Of 167 patients, 132 (79.0%) were females and 35 (21.0%) were males, with the average age at presentation of 51.1 years old. Most common cancers were breast (42.1%), gastrointestinal (16.4%), and gynecologic (18.4%). We defined insomnia group with over 15 score of ISI. Insomnia group (N=73, 43.7%) had more psychiatric past history and showed significantly higher distress, anxiety, and depression and lower physical, emotional, and social wellbeing than non-insomnia group. After adjusting the effect of psychiatric past history, the significant risk factors of insomnia were distress, anxiety, physical wellbeing, and social wellbeing and accounted for 38.7% of the variance in insomnia.

Conclusion: Insomnia is prevalent in cancer patients who referred to psychooncology clinic. The modifiable risk factors of insomnia in these patients were distress, anxiety, physical wellbeing, and social wellbeing. Early assessment and intervention strategies for these factors could prevent from becoming chronic insomnia in cancer patients.

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Comparison of wearable activity tracker to actigraphy for sleep evaluation and circadian rhythm measurement.

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Abstract

Actigraphy has been used to assess sleep wake cycles for over 20 years. Recently, various wearable activity trackers that are synced wirelessly to smartphone are commonly used to promote health by general population. The purpose of this study was to evaluate the reliability and validity of wearable activity tracker (Fitbit charge HR) for sleep evaluation and circadian rhythm measurement compared to actigraphy (Actiwatch 2). We compared wearable activity tracker and actigraphy for sleep and activity variables and circadian rhythm. 16 healthy adults wore Fitbit charge HR and Actiwatch 2 simultaneously on the same wrist. Also, participants went about their daily life and recorded sleep log during a 14-day period. The validity was assessed by comparing the output using Wilcoxon signed rank tests and Spearman's correlation. For sleep variables, both sleep start time ($r=0.869$, $p<0.001$) and sleep duration ($r=0.918$, $p<0.001$) are highly correlated between the two devices. However, Fitbit charge HR tends to overestimate sleep duration compared to actigraphy (mean±SD 409.7±97.6 vs 387.3±98.3). Although activity score showed low correlation between the two devices, period ($r=0.800$, $p<0.001$) and acrophase ($r=0.980$, $p<0.001$) of the circadian rhythm using Cosinor analysis are highly correlated. Fitbit charge HR showed strong validity for measurement of sleep variables and estimation of circadian rhythm. The results suggest that Fitbit charge HR can be used alternatively to measure sleep and circadian rhythm for psychiatric disorders, especially mood disorders.

Key words: Actigraphy, Fitbit, Validity, Sleep, Circadian rhythm

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Associations between actigraphy-assessed sleep, inflammatory markers, and insulin resistance in the Midlife Development in the United States (MIDUS) study

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Abstract

Disturbed sleep_ENREF_23_ENREF_23 has been _ENREF_27 associated with increased insulin resistance in previous studies and there is growing body of evidence that activation of inflammatory pathways plays a crucial role in the development of insulin resistance. This study aimed to examine associations between objectively measured sleep, inflammatory markers and insulin resistance.

Cross-sectional data collected from 2004 to 2009 during the Midlife Development in the U.S. II (MIDUS II) biomarker project were used. The study was performed in the MIDUS Research Center at the University of Wisconsin–Madison and participants' homes. The study population included 374 community-based midlife subjects (138 men and 236 women) who completed 7