中文題目：睡眠效率和糖尿病的關係

英文題目：Relationship between Sleep efficiency and hypertension

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Background Sleep efficiency (SE) is defined as total sleep time divided by time in bed, which plays pivotal role in sleep quality. Poor sleep is related to higher levels of inflammatory biomarkers. Previous studies reported that inflammation is associated with diabetes mellitus (DM). Thus, we aimed to evaluate the relationship between SE and DM.

Methods The current study investigated participants aged ≥18 years, who received full-night polysomnography at a sleep center between 2007 and 2015. We identified anthropometric measurement and SE at dataset of the sleep center. We excluded the patients with CPAP titration and incomplete data of age and sex. Logistic regression analysis measured the risk of DM by including the variables of sex, age, body mass index (BMI) and SE.

Results The 5823 participants (4407 male and 1416 female) attended full-night polysomnographic examination. Their mean age was 46.3 ± 14.2 years. Among them, 596 (10.3%) of the participants had DM. The probability of DM increased with age and BMI. The patients with SE < 70% exhibited significantly higher probability of DM than did the patients with SE ≥70% (18.1% vs 8%, *P< 0.001*). Multivariate logistic regression indicated that age, obesity, and SE were independent risk factors for DM.

Conclusion The current study suggested that patients with SE < 70% were related to DM development.

Keywords: sleep efficiency, body mass index, diabetes mellitus