

**Abstract Submission No. : 2426**

**Differential effects of short and long sleep duration on the prevalence of chronic kidney disease: NHANES 2005-2014**

**Jeonghwan Lee**<sup>1</sup>, Eun Young Kim<sup>3</sup>, Byeong Geon Park<sup>2</sup>, Jung Pyo Lee<sup>2</sup>

<sup>1</sup>Department of Internal Medicine-Nephrology, SMG-SNU Boramae Medical Center, Korea, Republic of

<sup>2</sup>Department of Internal Medicine-Nephrology, Seoul National University College of Medicine, Korea, Republic of

<sup>3</sup>Department of Mental Health Center, Seoul National University, Korea, Republic of

**Objectives:** It's been widely investigated that sleep duration has a U-shaped relationship with CKD prevalence. To see further association we varied the outcomes with CKD stages, and used BMI to see how different the association comes out between normal and obese population.

**Methods:** We analyzed the association between sleep duration and CKD prevalence in 32,128 participants(mean age; 47 years, 51% women) in the National Health and Nutrition Examination Survey (NHANES) who had reported their usual sleep duration. We used a few CKD outcomes defined by eGFR and uACR to examine the association. We did logistic regression for each analysis, adjusting for age, gender, race, diabetes mellitus, hypertension, smoking status and body mass index.

**Results:** Long sleep duration was associated with GFR<60(OR, 1.18;95% CI, 0.001), GFR<45(OR, 1.16;95% CI, 0.043), and all the ACR outcomes. Short sleep duration was not associated with GFR outcomes but ACR 30 and ACR 100. Normal population(BMI<25) had stronger association between sleep duration and CKD prevalence than overweigh and obese population(BMI 25).

**Conclusions:** We found sleep duration was associated with CKD prevalence in different levels by stages. Overweight and obese population (BMI 25 kg/m<sup>2</sup>) was less influenced by the association between sleep duration and CKD prevalence.