Lamia Medhat Afifi, J Sleep Disord Ther 2015, 4:4
http://dx.doi.org/10.4172/2167-0277.S1.002

OMICS International
conferenceseries.com

Annual Summit on
Sleep Disorders & Medicine
August 10-12, 2015 San Francisco, USA

Correlation of the biochemical profile with polysomnography in chronic kidney disease patients

Lamia Afifi
Cairo University, Egypt

Background: There is an increased prevalence of sleep disorders in patients with end-stage chronic kidney disease (CKD). However no studies have ever correlated the biochemical profile of these patients with sleep disturbances.

Purpose: This work aims to assess the relationship between polysomnography findings and the biochemical profile of patients with CKD.

Subjects & Methods: This study included 40 stage IV-V CKD patients. All subjects were subjected to an attended full overnight polysomnography. Fasting blood sugar, (FBS), hemoglobin, serum urea and creatinine, pH level, serum sodium, potassium, total and ionized calcium and phosphate levels were measured in all subjects.

Results: Urea level showed a positive correlation with central apnea index and lowest oxygen saturation while the creatinine level did not show any correlation with the various sleep parameters. FBS negatively correlated with total sleep time (TST), sleep efficiency, lowest and average oxygen saturation and positively correlated with N1 sleep stage and apnea hypone index (AHI). Hemoglobin level correlated positively with sleep efficiency and correlated negatively with number of awakenings and AHI. Serum sodium correlated positively with number of awakenings, while serum sodium and pH levels showed a negative correlation with AHI. Phosphate levels showed a negative correlation with periodic limb movement index and stage N3 percentage. Potassium and total calcium levels showed a positive correlation with central apnea index.

Conclusion: Striking correlations are found between sleep parameters and the biochemical profile of patients with CKD. Correction of urea, hemoglobin, fasting blood sugar and serum electrolyte levels of these patients can lead to improvement in their overnight sleep, which has a profound effect on quality of life.

Biography

Lamia Afifi completed her MD degree in Clinical Neurophysiology and Masters of Science in Clinical Neurophysiology at, Cairo University, Egypt in 2004 and 1999 respectively. She also possesses a GCE degree from the British council in Abu Dhabi, UAE in 1988. She is working as an Assistant Professor in Clinical Neurophysiology Unit, Department of Neurology, Kasr El-Aini Faculty of Medicine, Cairo University, Egypt. She is also associated with Sleep Disorders Center, Stanford University, Egyptian Society of Neurology (Psychiatry and Neurosurgery) and World Academy of Sleep Medicine.

lafifi2@kasralainy.edu.eg

Notes: