

Podcast of the *Journal of Clinical Sleep Medicine*

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Welcome to the regular podcast of the *Journal of Clinical Sleep Medicine*. I am Dr. Stuart Quan, editor of the *Journal*. These podcasts are a regular feature of each issue of the *Journal* and can be downloaded at the *Journal's* website. Each podcast features summaries of important articles published in the current issue of the *Journal*, as well as occasional interviews with authors of these papers.

The first paper to be discussed in this issue of the *Journal* is entitled, "Misperceptions in Interactions of Sleep Specialists and Generalists: Obstacles to Referrals to Sleep Specialists and the Multi-Disciplinary Team Management of Sleep Disorders," by Dr. Sean Hayes and colleagues from AXDEV Group, Inc., Quebec, Canada, The University of Texas Medical School at Houston, and Brigham & Women's Hospital and Harvard Medical School, Boston, MA. Sleep disorders are highly prevalent in the general population and it is estimated that up to 10% of Americans suffer from chronic insomnia, approximately six to eight percent of individuals have obstructive sleep apnea and a number of other individuals have conditions such as restless-legs syndrome, shift-work sleep disorder and inadequate sleep. Therefore, there is a need for non-sleep-physicians to be cognizant of sleep disorders and their treatment. In this study, family physicians and general internists and specialists who evaluate sleep-disorders patients were studied. Data was acquired through discussion groups, as well as questionnaires. The authors found that generalists did not have confidence in managing sleep patients with multiple drug therapies and drug interactions, as well as those treated with positive airway pressure. In addition, generalists reported deficits in the monitoring of sleep disorders and generally did not prioritize discussing sleep disorders with their patients. Most generalists also did not recognize that sleep medicine is a specific specialty. Of significance is that two-thirds of both generalists and sleep-disorders specialists reported care coordination as a challenge in the treatment of patients with sleep disorders. These data show that, despite a generally increased recognition of sleep disorders among physicians, there are still significant knowledge gaps among generalist physicians and that the role of sleep specialists in the care of patients with sleep disorders within a healthcare team is still to be determined.

The next paper to be highlighted in this podcast is entitled, "The Impact of Post-Traumatic Stress Disorder on CPAP Adherence in Patients with Obstructive Sleep Apnea," by Dr. Jacob Collen and colleagues from the Walter-Reed National Military Medical Center in Bethesda, MD. With the recent military actions in Iraq and Afghanistan, post-traumatic stress disorder is

becoming increasingly common among veterans returning from military service. In addition, there is increasing recognition of post-traumatic stress disorder among the civilian populace, as well. It is possible that CPAP adherence is adversely impacted by the co-morbid occurrence of both obstructive sleep apnea and post-traumatic stress disorder. In this study, 90 young combat veterans with post-traumatic stress disorder and obstructive sleep apnea were studied. The mean age of the cohort was approximately 40 years, the mean body-mass index was 27.9 and the mean apnea-hypopnea index was 28.2. There were 45 control subjects and 45 with post-traumatic stress disorder. The authors found that CPAP was used on 21.4% of nights in those with post-traumatic stress disorder, in comparison to 76.8% in those without this condition. Furthermore, nightly use of CPAP was only 3.4 hours in those with post-traumatic stress disorder, in comparison of 4.7 hours among those without post-traumatic stress disorder. Finally, regular use of CPAP as defined by more than four hours per night of usage on 70% of nights was 25.2% of subjects with post-traumatic stress disorder versus 58.3% in those without this condition. Thus, it appears that post-traumatic stress disorder adversely impacts CPAP adherence. The authors suggest that in order to improve CPAP adherence, early intervention by a variety of means should be used in those patients with post-traumatic stress disorder who are treated with CPAP for their obstructive sleep apnea.

The final paper to be highlighted in the podcast is entitled, "Association between QRS Duration and Obstructive Sleep Apnea," by Dr. Shuchita Gupta and colleagues from Einstein Medical Center, Philadelphia, PA, The Mayo Clinic, Rochester, MN and Cincinnati Children's Hospital Medical Center, Cincinnati, OH. Obstructive sleep apnea is now linked to a variety of cardiovascular outcomes, including hypertension, congestive heart failure, myocardial infarction and increased cardiovascular mortality. QRS duration has also been independently found to predict sudden cardiac death and mortality. However, the relationship between obstructive sleep apnea and QRS duration has not been previously studied. In this investigation, the relationship between QRS duration and obstructive sleep apnea was explored in a cross sectional manner in 221 individuals who underwent polysomnography. There was a wide spectrum of obstructive sleep apnea, ranging from no sleep apnea in 61 individuals to severe sleep apnea in 54. The authors found that QRS duration was significantly increased in those individuals with both mild to moderate obstructive sleep apnea and severe obstructive sleep apnea, in comparison to those without obstructive sleep apnea. In addition, the apnea-hypopnea index was positively correlated

with QRS duration. In multivariate analysis, this association remained significant in women but not in men. It is important to recognize that because of the cross-sectional nature of this study, causality cannot be determined. Thus, it is not known whether prolongation of the QRS occurred before onset of obstructive sleep apnea or afterwards. The authors speculate that finding of the increased QRS duration could be one mechanism to explain sudden cardiac death in patients with obstructive sleep apnea. A variety of mechanisms were discussed, including obstructive sleep apnea leading to left ventricular hypertrophy, endothelial dysfunction, systemic inflammation, sympathetic activation and oxidative stress. All of the latter would increase arterial stiffness, leading to increased after load on the left ventricle, which then might lead to QRS widening.

I also would like to call attention to a review article published in this issue of the *Journal*, entitled, “Sleep Abnormalities and Chronic-Fatigue Syndrome/Myalgic Encephalomyelitis: A Review.” This manuscript discusses the association between sleep disorders and those individuals with chronic-fatigue syndrome.

Finally, the listener should note that, beginning with the 2013 volume of the *Journal*, the *Journal* will be published monthly and, thus, the next issue will be in January, 2013.

This concludes the regular podcast of the *Journal of Clinical Sleep Medicine*. The listener is encouraged to read the contents of the *Journal* for additional information regarding each of the articles summarized in this podcast, as well as other papers published in this issue of the *Journal*.