Indiana Sleep Center

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Sleep Watchers

Winter 2020

Dear Colleague,

We hope this quarter's newsletter finds everyone in good health and spirits. As always we genuinely appreciate your support and look forward to continuing to help you improve the quality of life for your patients.

Please let us know if you would like to see a specific topic covered in our next issue. It is our goal to provide as much information as possible to better serve your patients. We appreciate the trust you place in us by allowing us to participate in the care of your patients.

Best Regards,

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Sleep Disorders in Pregnancy

Silvestri R, Aricò I.
Sleep Sci. 2019 Jul-Sep;12(3):232-238

Anatomical, physiological, psychological and hormonal alterations affect sleep during pregnancy. Sleep appears to be commonly impaired only after the first trimester. Albeit objective data regarding the reduction of sleep duration and efficiency are not univocal, poor sleep is reported by over half of pregnant women. The reasons under lying these complaints are multiple, including lower back pain, gastroesophageal reflux disorder (GERD), increased micturition and repositioning difficulties at night.

Specific primary sleep disorders whose prevalence drastically increases during pregnancy include obstructive sleep apnea (OSA) and restless legs syndrome (RLS), both related to gestational hypertension and gestational diabetes mellitus (GDM). Pre-eclampsia and labor complications leading to an increased number of cesarean sections and preterm births correlate with insomnia and OSA in particular. Post-partum depression (PPD) and impairment of the mother-infant relationship may also be considered as secondary effects deriving from poor sleep during pregnancy. *Recognition and treatment of sleep disorders should be encouraged in order to protect maternal and fetal health and prevent dire consequences at birth.*

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Pain in Sleepwalking

Régis Lopez, MD,et al.
Sleep. 2018 Nov 1; 38(11): 1693–1698

Sleepwalking is a disorder characterized by arousal specifically from slow wave sleep with dissociated brain activity that may be related to lower nociceptive state. The authors' objectives were to assess the frequency of chronic pain, headache, and migraine in sleepwalkers compared to controls, examine the impact and determinants of pain in sleepwalkers, and report analgesia frequency during injurious parasomnia episodes. One hundred patients with sleepwalking were assessed for disease characteristics, sleep (polysomnography, sleepiness, and insomnia), pain (chronic pain, multidimensional pain inventory, headache, and migraine), depressive symptoms, and quality of life compared to 100 adult controls. Pain perception was retrospectively assessed during injurious parasomnia episodes.

Data showed that lifetime headache, migraine, and chronicpainattimeofstudyweresignificantlyassociated with sleepwalking (also called somnambulism). Compared to controls, sleepwalkers reported more frequent daytime sleepiness, and depressive and

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Sleepwalking...*continued*

insomnia symptoms. After adjustments, sleepwalking was associated with increased risk for headache and migraine only. Compared to pain-free sleepwalkers, sleepwalkers with chronic pain were more likely to be older and to have greater daytime sleepiness, insomnia, and depressive symptoms, with no difference in polysomnography assessment. Of the 47 sleepwalkers with at least one previous violent parasomnia episode, 78.7% perceived no pain during episodes, allowing them to remain asleep despite injury. *Results highlight the clinical enigma of pain in sleepwalking patients with complaints of frequent chronic pain, migraine, and headache during wakefulness but who report retrospectively experience of analgesia during severe parasomnia episodes, suggesting a relationship between dissociated brain activity and nociceptive dysregulation.*

Moderate to Severe Obstructive Sleep Apnea During REM Sleep as a Predictor of Metabolic Syndrome

Koo DL, Kim HR, et al.
Sleep Breath. 2020 Jan 2

Metabolic syndrome is a cluster of metabolic abnormalities including obesity, hypertension, hypertriglyceridemia, low high-density lipoprotein cholesterol, and hyperglycemia. Obstructive sleep apnea (OSA) is known to be associated with metabolic syndrome. However, it remains uncertain which sleep parameters of OSA are associated with metabolic syndrome. The authors wanted to clarify the relationship between sleep variables and the presence of metabolic syndrome in patients with OSA. They prospectively recruited patients who visited the institute for the evaluation of sleep-disordered breathing. All patients underwent overnight polysomnography and sleep questionnaires. They were diagnosed with metabolic syndrome according to the 2007 consensus definition by the International Diabetes Federation. Appropriate statistical analysis was used to predict the presence of metabolic syndrome with variables related to sleep parameters.

A total of 85 patients (43 men) were enrolled. The mean age was 52 year old. Metabolic syndrome was diagnosed in 39 (46%) patients. Patients with metabolic syndrome had a significantly higher apnea-hypopnea index (AHI) compared with patients without metabolic syndrome. An AHI greater than 15/h during REM sleep was a significant independent predictor of metabolic syndrome after adjusting for age, body mass index, and non-REMAHI ≥ 15/h. REMAHI was significantly associated with the presence of metabolic syndrome after adjusting for age and BMI. *Patients with OSA frequently had comorbid metabolic syndrome. Moderate to severe OSA during REM sleep may be a predictor of metabolic syndrome.*

Effects of Pharmacotherapy Treatment on Patient-Reported Outcomes in Narcolepsy and Idiopathic Hypersomnia

Pascoe M, Bena J, et al.
J Clin Sleep Med. 2019 Dec 15;15(12):1799-1806

The authors wanted to evaluate the association between patient-reported outcomes (PROs) and treatment regimen/standardized dose (STD), a measure of drug burden, in patients with narcolepsy type 1 (NT1)/type 2 (NT2) and idiopathic hypersomnia (IH). Patients age 18 years or older with NT1/NT2 and IH with baseline and ≥ 6-month follow-up during 2008-2010 were included. Changes in PROs (Epworth Sleepiness Scale [ESS], Fatigue Severity Scale [FSS], Patient Health Questionnaire 9 [PHQ-9], total sleep time [TST]) by diagnosis, treatment regimen (monotherapy versus polytherapy, sodium oxybate [SO] use), and STD were assessed.

A total of 92 patients (26 [28.3%] NT1, 27 [29.3%] NT2, 39 [42.4%] IH) were included (mean age 43.8); 66 [71.7%] female). Baseline PROs suggested excessive daytime sleepiness (ESS 14.2 [74% patients > 10]), significant fatigue (FSS 47.5), and mild depression (PHQ-9 9.0 [4.0, 14.0] [49.4% ≥ 10]). At follow-up, ESS and PHQ-9 improved significantly overall and within diagnostic, monotherapy/polytherapy, and SO use groups. FSS improved significantly overall, but improvements were not significant for IH, monotherapy, polytherapy, and non-SO using groups. PRO changes were not significantly different between groups, but baseline STD was associated with worsening PHQ-9 across PHQ-9 change models, and ESS worsened with increasing STD at follow-up. *Significant improvements in sleep-related PROs were seen with pharmacotherapy use, regardless of diagnosis or treatment type, highlighting the importance of individualized prescribing decisions for this population.*

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