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EPILEPSY CONTROL AND NIGHT SLEEP DURATION AND AFTERNOON SIESTA

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Introduction: The relationship between sleep and epilepsy has long been recognized but understanding the association between seizure control and sleep duration is not well explored. The study aims to describe the sleep habits in people with epilepsy (PwE) and explore the association between sleep habits, particularly afternoon napping and level of seizure control and anti-epileptic drugs (AEDs).
Methods: this is a cross-sectional study of adult epilepsy patients attending neurology clinic. Sleep parameters are measured using actigraphy for one week and home sleep apnea testing to rule out obstructive sleep apnea (OSA).
Results: total of 250 PwE were screened and 129 patients (male & female) completed the study with mean age of 29.75 ± 9.18 years and mean body mass index (BMI) of 27.12 kg/m2. There was significant association between night sleep duration and time of wake up and number of AEDs (adjusted R2=0.026, P=0.03 & P=0.04 respectively). There is also significant association between number of seizures per night and afternoon napping (adjusted R2=0.043, P=0.05). Other sleep parameters did not reveal any significant association with level of epilepsy control neither with number of AEDs (P>0.05).
Conclusion: The study described that PwE with uncontrolled epilepsy on multiple AEDs are practicing sleep habits that involved longer afternoon napping and shorter sleep duration.
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METABOLIC SYNDROME IN NARCOLEPTIC CHILDREN

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Introduction: Narcolepsy is a disabling neurological disorder characterized primarily by excessive daytime sleepiness (EDS), cataplexy, hypnagogic hallucinations, sleep paralysis, rapid eye movement (REM) behavior disorder (RBD) and disturbed nocturnal sleep. Over 50% of children with narcolepsy are obese. Metabolic syndrome (MetS), a constellation of disturbances associated with obesity, is increasingly seen in narcolepsy. A higher prevalence of MetS was revealed both in adults and children with narcolepsy. The objective of the present study was to compare clinical and sleep characteristics in children with narcolepsy with different components of MetS to clarify the mechanisms in MetS in these children.
Methods: This retrospective study included 58 children with narcolepsy. Data on blood pressure, High density lipoprotein (HDL) cholesterol, triglyceride, glucose, insulin and anthropometry (height and weight) were collected. MetS was defined when ≥3 of the following criteria were met: (1) Body mass index (BMI) ≥IOTF-30, (2) Blood pressure ≥90th percentile, (3) HDL-C ≤0.4 g/L, (4) Triglycerides ≥1.3 g/L, (5) homeostasis model assessment of insulin resistance (HOMA-IR) ≥75th percentile. Then, clinical and sleep characteristics were compared in groups with different MetS components.
Results: A total of 17 % of children with narcolepsy had MetS including 79% with high HOMA, 26% with high BMI, 24% with low HDL cholesterol and 12% with high triglycerides, but no patient with high blood pressure. 58% of the patients without obesity had at least 1, 2 or ≥3 MetS risk factors (78%, 15% and 6%, respectively). 55% of them were overweight. In children with narcolepsy with at least two MetS risk factors, there was a higher proportion of night eating, a lower percentage of N3 sleep, a higher arousal index, a shorter mean sleep latency and more sleep onset REM periods (SOREMPs) compared to patients with fewer MetS risk factors.
Conclusion: Altered sleep architecture and eating behavior are closely associated with risk factors of MetS in children with narcolepsy, even without obesity. We recommend to evaluate MetS risk in all children with narcolepsy to prevent complications such as type 2 diabetes and cardiovascular outcomes.
Support (If Any):

0630

A 4-WEEK SLEEP INTERVENTION THAT ADVANCES AND STABILIZES SLEEP TIMING LEADS TO MEANINGFUL IMPROVEMENTS IN PAIN AND PHYSICAL FUNCTION IN PEOPLE WITH FIBROMYALGIA

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Introduction: Fibromyalgia is characterized by chronic widespread pain, mood and sleep disturbance, and affects over 20 million Americans. Pharmacological treatments (antidepressants, antiepileptics, opioids) often have small treatment effects and adverse side-effects. Exercise therapy requires significant patient motivation, and psychotherapy requires specialized personnel. Here we report on a randomized clinical trial in which we tested a 4-week sleep-wake scheduling intervention with either a dim or bright daily 1 hour morning light treatment.
Methods: Fifty-four adults (52 females, 18-78 years) meeting ACR 2011 diagnostic criteria for fibromyalgia completed a 5-week protocol. In the first week each participant slept at home, ad lib, on their usual sleep schedule. Thereafter, they followed a fixed sleep schedule and a daily 1-hour morning light treatment (randomized to dim or bright light). The sleep schedule advanced each participant's individual sleep-wake timing by no more than 1 hour, and focused on stabilizing sleep timing. Participants were monitored with wrist actigraphy throughout the study. Outcomes were assessed at baseline, 2 weeks and 4 weeks after the intervention.
Results: The 4-week intervention resulted in an average 36-minute advance in participants' sleep timing in both groups (ps<0.001). Night-to-night variability in sleep timing also significantly decreased in both groups (ps<0.01). Pain and physical function improved equally in both groups (Fibromyalgia Impact Questionnaire-Revised, PROMIS Pain intensity, PROMIS