date or index date after 2010 were excluded and only prescription dates that were subsequent to the ND diagnosis or index date respectively were considered. Logistic regression adjusting for age, gender, race and Hispanic ethnicity was used to determine the association between drug groups and ND.
Results: In risk factor analysis (667 cases, 14,739 controls), opioids and antihistamines were significantly less prevalent among would-be ND patients than controls (OR=0.627 and 0.610 respectively); no drug group was predictive of ND. In contrast, all drug groups were significantly associated with ND in treatment analysis (803 cases, 15,530 controls). The strongest associations were seen with benzodiazepine (OR=3.026; 95% CI: 2.472, 3.703) and SSRI (OR=2.789; 95% CI=2.316, 3.358) prescriptions.
Conclusion: Our data suggest that some JAHVA providers may be treating ND with medication, most notably with benzodiazepines/Z-drugs and antidepressants. The role of anti-histamine and opioid prescriptions needs further elucidation. The ramifications of these treatment decisions should be explored.
Support: This material is the result of work supported with resources and the use of facilities at the James A. Haley Veterans' Hospital.

0807

NREM PARASOMNIAS: RETROSPECTIVE ANALYSIS OF TREATMENT AND OUTCOMES

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Introduction: NREM parasomnias are relatively common among children and sometimes persist in adulthood. These behaviors may result in injury or have negative impacts on functioning and quality of life thus necessitating treatment. The treatment is challenging given the lack of evidence for frequently used medications such as benzodiazepines (BDZ) or tricyclic antidepressants (TCA). The aim of this retrospective analysis is to determine the most frequently prescribed medications for treatment of NREM parasomnias and evaluate reported outcomes.
Methods: We performed a retrospective chart review of all patients with NREM parasomnia diagnosed within BWH clinics examining the date of diagnosis, date of starting therapy, comorbidities, type of medication prescribed, and the reported change in symptoms or side effects at the individual's follow-up visits.
Results: From 2012 to 2019, 123 patients (64 females, 59 male) at BWH clinics received the diagnosis of NREM parasomnia, including sleepwalking and night terrors. Mean age was 44. Comorbidities included depression=16, anxiety=32, seizures=6, RLS=9, epilepsy=5, insomnia=29, and OSA=57. Initial treatment included safety counseling (72), BDZ (7), TCA (4), and treatment of comorbidity (23). Treatment of OSA only (n=15) was effective in 66% (n=10) and 33% were lost to follow up. Of those with OSA treatment plus BDZ (n=6), treatment was effective in 50% (n=3). Of those receiving BDZ only (n=7), treatment was effective in 43%. Of those receiving Melatonin (8),treatment was effective among 62.5% (n=5). TCAS (n=4) were effective in 3 patients (75%). Treatment of comorbid conditions without pharmacotherapy (23) was effective in 35% (n=8) while the remaining 65% (n=15) were lost to follow up.
Conclusion: Treating comorbid conditions such as OSA, insomnia, RLS, depression, and anxiety is a frequent treatment strategy. Additional pharmacologic treatment most commonly includes melatonin, BDZs, and TCAs.
Support: None

0808

HIGH DENSITY EEG CORRELATES OF NREM SLEEP PARASOMNIA EPISODES

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Introduction: Parasomnia episodes (PE) consist of abnormal behaviors during sleep. Using high-density EEG (HDEEG), we sought to quantify topographical differences in spectral power during PE in comparison to wake and sleep.
Methods: 17 adult subjects with a history of NREM sleep parasomnia underwent 256-electrode HDEEG recordings during recovery sleep after 25h of sleep deprivation. PE occurred either spontaneously or when triggered by a sound. Data preprocessing of PE, sleep and wake data included filtering at 1-25 Hz, careful epoch and channel selection, and adaptive mixture independent component analysis (AMICA). We compared topographies of delta (slow wave activity, or SWA) and theta power, alpha power, and beta/delta ratio (a marker of cortical arousal) between states using paired t-tests. All results were thresholded at $p<0.05$ corrected for multiple comparison using statistical non parametric mapping (SNPM).
Results: Clean data were obtained in 26 PE arising out of N2/N3 sleep in 11 subjects. During PE, delta and theta power were significantly higher than during wake but lower than during sleep in central regions (at uncorrected $p<0.05$ for sleep vs. PE delta power). Occipital alpha was lower during PE compared to wake, but higher during PE compared to sleep. Finally, beta/delta ratio values during PE were globally higher than in wake, but globally lower than during sleep.
Conclusion: The present results confirm and extend our previous findings of decreased SWA in central areas during baseline sleep in patients with NREM sleep PE. They suggest that higher cortical arousal in central regions may precipitate motor behaviors during PE. Alpha power and beta-delta ratio during PE were intermediate between sleep and wake, suggesting that PE are transitional states with an admixture of cortical arousal and cortical sleep. Future analyses will use source reconstruction to identify the cortical generators of observed scalp differences.
Support: This work was funded by the Swiss National Science Foundation and the Tiny Blue Dot foundation.

0809

A RANDOMIZED DOUBLE-BLIND, PLACEBO CONTROLLED TRIAL WITH CROSS-OVER, TO ASSESS THE EFFICACY OF CORRECTING VITAMIN D DEFICIENCY IN IMPROVING THE SYMPTOMS OF RESTLESS LEGS SYNDROME (RLS).

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Introduction: Recent studies have shown an association of low Vitamin D levels and severity of RLS symptoms. However, effect