

Conclusion: Our study reveals a robust association between sleep quality, fatigue, and erectile dysfunction in male patients with multiple sclerosis.

Conflict of Interest: No.

P785

Poster Session–Neurology–Day 2 (Poster)

Effect of insomnia on mental health and seizure control in epilepsy

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Introduction: Sleep disorders are common among patients with epilepsy. Adults with epilepsy (AWE) report worse sleep quality and insomnia symptoms. Thus insomnia can worsen sleep related, neurological and mental complaints in AWE. We aimed to assess the impact of insomnia on sleep and seizure parameters and mental wellbeing among AWE.

Method: All patients underwent a structured somnological and neurological interview, then polysomnography (PSG), electroencephalography (EEG). To assess sleep complaints, depressive and anxiety states and subjective quality of life we used Armenian validated questionnaires and scales: Pittsburgh Sleep Quality Index (PSQI), Epworth Sleepiness Scale (ESS), Berlin Questionnaire (BQ), Hamilton rating scales for depression (HAMD) and anxiety (HAMA), SF-36. We divided the sample into two groups according to presence or absence of insomnia complaint: AWE with (AWEI) and without insomnia (AWEWI). Statistical analysis included Mann-Whitney U and Chi-squared tests.

Results: Overall 175 participants were included, females-47.4%, with mean age 36.6 (SD ± 13.4). Number of participants in AWEI was 80 and in AWEWI-95. AWEI had worse scores in depression 16.5 versus 8.9 ($p < 0.001$) and anxiety 19.2 versus 10.4 ($p < 0.001$) by HAMD and HAMA respectively. More importantly, AWEI had higher seizure frequency during the preceding year than AWEWI-44.1 vs. 28.6 ($p > 0.05$). We also recorded statistically significant differences in PSG variables: number of awakenings 12.5 versus 9.4 ($p < 0.05$), NREM2 latency: 37.6 versus 15.8, $p < 0.001$, NREM3 latency: 67.9 versus 35.8, $p < 0.02$. We found statistically significant differences also in all eight SF-36 domains showing worse quality of life results among AWEI compared to AWEWI ($p < 0.05$).

Conclusion: Our results suggest that the presence of insomnia can worsen comorbid depressive and anxiety background and importantly the seizure control among AWE. We found statistically significant association for the above-mentioned factors. This could pointing at an

important worsening effect insomnia could have on the factors of physical and mental health in AWE.

Conflict of Interest: No.

P786

Poster Session–Neurology–Day 2 (Poster)

Dreaming in RBD: A window into neurodegenerative mechanisms?

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Introduction: Isolated Rapid Eye Movement Sleep Behavior Disorder (iRBD) is a condition where muscle atonia during REM sleep is lost, leading to individuals acting out their dreams. It is considered a precursor to neurodegenerative diseases like Parkinson's disease (PD). Research is mainly focused on identifying markers for predicting the progression of these diseases early. Some authors hypothesized a link between dream activity in RBD and biological processes underlying neurodegeneration. Therefore, our study aims to investigate oneiric features in association with sleep patterns and neuropsychological measures in a group of iRBD patients.

Method: Thirty-one individuals diagnosed with iRBD at IRCCS San Raffaele in Milan (mean age: 68.03 ± 7.29) were recruited. iRBD patients will undergo a video-polysomnographic (vPSG) and a neuropsychological assessment will be conducted prior to any experimental session. Upon morning awakening, audio-recording of dream recall (DR) and completion of a questionnaire related to self-assessed dream characteristics were required.

Results: Fifteen iRBD patients reported at least one dream (48.4% of the sample). Correlational analyses (Spearman's Rho) showed that (a) the number of DR was positively correlated with the percentage of stage 1 NREM Sleep (Rho = 0.684, $p = 0.005$); (b) the total word count of DR was positively correlated with the Mini Mental State Examination assessing the level of cognitive decline (Rho = 0.551, $p = 0.033$); and (c) the emotional intensity of DR, particularly characterized by negative emotions, were negatively correlated with the attentive matrices scores (Rho = -0.711, $p = 0.003$).

Conclusion: According to the literature, our preliminary results support the hypothesis that a shallower sleep promotes DR. Not surprisingly, we found a high percentage of negative emotions in patients' dreams, and greater emotional intensity appears to be associated with

poorer attentional performance. Previous studies found that unpleasant emotions and aggression were associated with frontal deficits in iRBD. Moreover, attentional skills most reliably predict neurodegenerative disorder conversion. Finally, we found that the length of dream reports is correlated with lower cognitive decline, consistent with the idea that there is continuity between cognitive functioning in wakefulness and sleep. Overall, the findings suggest that dreaming can provide relevant information about the cognitive functioning of RBD patients, providing possible markers for conversion to alpha-synucleinopathies as PD.

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P787

Poster Session-Neurology-Day 2 (Poster)

Sleep health is not associated with dual-tasking in individuals with a neurological condition

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Introduction: Poor sleep and dual tasking deficiencies are common in people with a neurological condition and adversely impact activities of daily living and quality of life. The extent to which sleep health is associated with dual tasking in neurological populations has not been explored previously. This study examined associations between sleep health and a walking while talking dual task cross-sectionally in people with a neurological condition.

Method: Sleep health was examined with the Sleep Health Index, while dual tasking was examined with arithmetic (simple and complex) and walking tasks performed concurrently over a twenty second period. Univariate linear regression models were used to assess associations between sleep health and dual tasking performance in the present cohort.

Results: Moderate to excellent between trial reliability was observed for examined dual tasks. Participants performed worse when dual tasking, with prioritisation of arithmetic tasks observed, contrasting previous work, where prioritisation of motor tasks has been noted. Compared to non-neurological populations, our cohort demonstrated lower sleep health values. Sleep health was not associated with dual tasking performance in the present cohort.

Conclusion: Findings suggest that sleep health is poorer in people with a neurological condition, however, does not contribute to deficiencies in a walking while talking dual task. Future research should confirm these preliminary findings with different dual tasking

experiments and paradigms (e.g., cognitive-cognitive and motor-motor paradigms).

Conflict of Interest: No.

P788

Poster Session - Neurology - Day 2 (Poster)

The Associations Between Sleep Environment Factors and Sleep Health in Individuals Living with Neurological Conditions

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Introduction: Sleep health is poorer in people living with a neurological condition. The extent to which environmental factors, particularly bedroom light and temperature, impact sleep health in people living with a neurological condition has been under-investigated. This study explored associations between air temperature and light in the sleeping environment and sleep health in individuals with neurological conditions.

Method: This study includes a convenience sample of forty-six people with a neurological condition. Sleep health was evaluated using the Sleep Health Index. Air temperature and light data were captured across seven days using a light/temperature data logger positioned next to the participant's bed. Data recorded during the participants' sleeping periods (determined using a sleep diary) were analysed. Linear regression models were used to assess the associations between air temperature and light and sleep health (including domains).

Results: This study showed that for every additional minute of low (10 to 50 lux) light exposure during sleep periods, sleep quality decreased by 9%.

Conclusion: Our findings suggest that low light exposure during sleep periods may be detrimental to the sleep quality of individuals with neurological conditions.

Conflict of Interest: No.

P790

Poster Session-Neurology-Day 2 (Poster)

Estimation of subjective restless legs syndrome symptoms based on leg movements during wake

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Introduction: Whereas diagnosis of restless legs syndrome (RLS) is based exclusively on subjective symptoms, leg movements are an