

patients who underwent both diagnostic and continuous positive airway pressure (CPAP) implementation study in the Top End Northern Territory of Australia.

Methods: All adult Indigenous patients identified to have undergone both a diagnostic polysomnography followed by an in-lab CPAP implementation study were included.

Results: 145 patients (44% female) were included with a median age 49 years, and median BMI of 35 kg/m². The OSA severity was - 5% mild, 26% moderate & 68% severe on the diagnostic sleep study. On application of CPAP the Total Arousal Index (diagnostic 28 to 16/hour on CPAP), Total Apnea Hypopnea Index (AHI) (diagnostic 48 to 8/hour on CPAP), Non-rapid eye movement (NREM) AHI (diagnostic 46 to 8/hour on CPAP) and SpO₂ (diagnostic 93% to 95 % on CPAP) significantly improved.

Conclusion: This study demonstrates that there is significant improvement in arousal Index, reduction in AHI both during NREM and REM sleep along with improvement in overall oxygen saturation upon application of CPAP among Indigenous patients with OSA. Hence, long term CPAP therapy should be offered/considered among Indigenous patients diagnosed to have OSA when clinically appropriate.

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P008

THE RELATIONSHIP BETWEEN REM SLEEP PRIOR TO ANALOGUE TRAUMA AND INTRUSIVE MEMORIES

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Intrusive memories are a core feature of posttraumatic stress disorder (PTSD). They both predict the onset of the disorder and drive broader PTSD symptomology. Outside PTSD, disruptions in REM sleep contribute to emotional dysregulation and an amplified reaction to negative emotional stimuli. The current study examined the association between REM sleep prior to analogue trauma and intrusive memories.

To manipulate REM sleep, 22 healthy adults (MAge = 26.05, SD = 5.22) were randomised to either to a circadian misalignment (CM) condition or normal control (NC) condition for four nights. In CM, participants slept normally for two nights followed by a 4-hour phase advance on night three and an additional 4-hour phase advance on night four. In NC, participants slept 8 hours. On the day after night 4, participants watched a trauma film in a controlled laboratory setting. Participants kept an intrusive memory diary for three days following viewing of the film.

Greater REM sleep percentage across 4 nights prior to analogue trauma was significantly associated with fewer intrusive memories independent of group in the 3 days after viewing of the film ($p = .015$).

Findings suggest REM sleep may serve to protect individuals against experiencing intrusive memories. This is consistent with evidence suggesting REM sleep influences the encoding of emotional memory. Occupations (e.g., emergency service workers/military personnel) who experience circadian disruptions likely to decrease REM sleep (e.g., from shift work) may be at heightened risk of experiencing intrusive memories after trauma exposure, and thus at increased risk of developing PTSD.

P009

THE EFFECTS OF LOW-DOSE MORPHINE ON SLEEP AND BREATHLESSNESS IN CHRONIC OBSTRUCTIVE PULMONARY DISEASE

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Introduction: Low-dose morphine is prescribed for refractory breathlessness in chronic obstructive pulmonary disease (COPD). Preliminary investigations suggest improved perceived sleep quality, although concerns exist regarding opioid-induced sedation. This study assessed the effects of morphine on subjective sleep quality and alertness, and potential links between sleep quality and breathlessness.

Methods: Analysis of sleep questionnaire and breathlessness data at baseline and after one week of low-dose slow-release morphine versus placebo according to a double-blind randomised controlled design was performed. Participants were randomised to placebo, 8mg or 16mg/day oral morphine for one week (before further dose escalation). Epworth Sleepiness Scale (ESS), Karolinska Sleep Score (KSS), Leeds Sleep Evaluation Questionnaire (LSEQ) and breathlessness severity scores were assessed. Dose effects on sleep measures were assessed via linear regression (including baseline sleep measures). Drug effects on the relationship between sleep quality and breathlessness were assessed via linear mixed models with random effects and three-way interaction between sleep measures, dose, and visit.

Results: 156 patients were randomised as follows: 8mg, n=55; 16mg, n=51; placebo n=50. Overall, there was a neutral effect of morphine on ESS, KSS, and LSEQ (all $p > 0.05$). Morphine did not modify the relationship between sleep measures and breathlessness.

Discussion: Despite safety concerns, one week of morphine did not negatively impact subjective sleep or daytime alertness measures. There was no clear relationship between morphine's effects on sleep and next-day breathlessness perception. Objective data assessing sleep and next-day alertness are required to further explore potential links between sleep and breathlessness in people with COPD.

P010

SUCCESS AND FAILURE RATES OF AMBULATORY HOME SLEEP STUDIES (LEVEL 2) AMONG INDIGENOUS PATIENTS.

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Introduction/Aim: Level 2 sleep studies are being increasingly performed worldwide in order to minimise the cost and access to level1 in-lab polysomnography. However, their accuracy and validity remain disputed. For populations residing in regional and remote localities, access to level1 sleep studies are further compromised, such as among Indigenous people of Australia, where 80% reside in remote communities. There is limited information in the literature regarding the efficacy of level2 sleep studies among Indigenous patients. Hence, in this study we evaluated the efficacy of level2 sleep studies amongst an Indigenous population.