Troubles respiratoires du sommeil et métabolisme

-Compte tenu du rôle prégnant du système endocannabinoïde sur différents mécanismes physiologiques dont la régulation du sommeil, de la balance énergétique ou le métabolisme des graisses et du glucose, la revue Experimental and Clinical Endocrinology and Diabetes s’est intéressée plus spécifiquement à la concentration en hormone oleylethanolamide (OEA) des patients souffrant d’apnées du sommeil et émet certaines hypothèses quant à son rôle spécifique dans ce contexte.

Troubles du sommeil postopératoires

-La revue saoudienne Saudi Journal of Kidney Diseases and Transplantation dans une étude à paraître, attire l’attention sur les plaintes de mauvais sommeil des patients venant de connaître une greffe du rein (ESRD end-stage renal disease) et étudie la part des différents facteurs plus spécifiquement impliqués génétiques, thérapeutiques, sociodémographiques ou environnementaux.

Neurologie

-La pertinence de la pregabaline en termes de tolérance et d’efficacité dans le traitement du syndrome des jambes sans repos est mise à l’épreuve et confirmée dans la revue Neurology.

-La revue Expert Opinion on Pharmacotherapy propose une revue critique des traitements existants et nouvelles approches thérapeutiques de la narcolepsie, en distinguant leurs visées respectives.

Neurosciences

-Une étude originale parue dans la revue Cerebral Cortex s’attarde sur l’incidence du sommeil et plus spécifiquement sur la neurophysiologie du sommeil paradoxal, dans les mécanismes de la régulation des émotions.

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Experimental and Clinical Endocrinology and Diabetes 2010 Apr 28. [Epub ahead of print]

Circulating Endocannabinoids and N-acyl-ethanolamides in Patients with Sleep Apnea - Specific Role of Oleoylethanolamide.


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Abstract

OBJECTIVE: The endocannabinoid system promotes diverse effects on fat and glucose metabolism as well as on energy balance and sleep regulation. The role of N-acylthanolamides like oleoylethanolamide (OEA) and other endocannabinoids such as anandamide (AEA) and 2-arachidonoyl-glycerol (2-AG) has not yet been investigated in patients with sleep apnea. DESIGN AND METHODS: We measured circulating OEA, AEA and 2-AG in patients with sleep apnea (n=20) and healthy control subjects (n=57). Respiratory distress index (RDI) as measured by polysomnography was used as a quantitative index of sleep apnea. RESULTS: In patients with sleep apnea OEA serum
concentrations were significantly higher than in control subjects (8.4 pmol/ml (95% CI 6.9-9.9) vs. 4.0 (3.5-4.5); p<0.0001, adjusted for body mass index (BMI), fasting insulin, HDL and LDL cholesterol). In contrast, AEA (2.9 (95% CI 1.9;3.9) vs. 1.8 (1.4;2.1), p=0.09) and 2-AG (20.0 (-14.5;54.5) vs. 32.8 (21.4;44.2), p=0.56) were not significantly different between patients with sleep apnea and control subjects after adjustment. In the sleep apnea group, OEA serum concentrations were associated with RDI (r (2)=0.28, p=0.02) and BMI (r (2)=0.32, p=0.01). However, OEA was not associated with BMI in the control group (p=0.10). CONCLUSIONS: These results indicate that among the three analyzed fatty acid derivatives, OEA plays a specific role in patients with sleep apnea. Together with animal data, the 2-fold elevation of OEA serum concentrations could be interpreted as a neuroprotective mechanism against chronic oxidative stressors and a mechanism to promote wakefulness in patients with nocturnal sleep deprivation and daytime hypersomnolence. © Georg Thieme Verlag KG Stuttgart · New York.

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Assessment of sleep disturbance in renal transplant recipients and associated risk factors.

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Abstract

Sleep disturbances are highly prevalent in ESRD patients. In this study we sought to evaluate the associations of poor sleep with several genetic, laboratory, treatment and demographic factors in renal allograft recipients using a validated sleep quality questionnaire. A cross-sectional study was conducted on renal transplant patients over 18 years of age with stable current stable graft function. All patients completed PSQI and Ifudu questionnaires for assessment of sleep quality and morbidity measures. Kolmogorov-Smirnov test was used for evaluation of distributions besides Student's t-test, and Fisher's exact test for analyses. Mean total PSQI score for the whole patients was 6.5 +/- 2.6. Overall 26 (67%) of patients were diagnosed as “poor sleepers” (PSQI total score >/= 5) and the reminding 13 (33%) were “good sleepers”. Compared to “good sleepers”; “poor sleepers” significantly had higher serum phosphate levels and ESRD duration (P= 0.05). Hematological disorders were more seen in “poor sleepers” and musculo-skeletal disorders had a significant worsening impact on PSQI total score (beta= 0.28, P= 0.05). In conclusion our study showed that sleep disturbance is common in renal transplant patients is surprisingly common, and ESRD duration prior to transplant was significantly associate with sleep quality. Future studies with larger sample sizes are necessary for confirming our results.

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Treatment of restless legs syndrome with pregabalin. A double-blind, placebo-controlled study.

Garcia-Borreguero D, Larrosa O, Williams AM, Albares J, Pascual M, Palacios JC, Fernandez C.

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Abstract
OBJECTIVES: To assess the therapeutic efficacy, required dose, and tolerability of pregabalin in patients with idiopathic restless legs syndrome (RLS). METHODS: This was a double-blind, placebo-controlled trial with polysomnographic control, providing Class II evidence. Ninety-eight patients underwent a 2-week single-blind period with placebo; 58 were randomized to receive pregabalin or placebo for 12 weeks under a flexible-dose schedule. Endpoints were mean change from baseline in the International Restless Legs Scale (IRLS) total score, Clinical Global Impression (CGI), and RLS-6 scales, as well as changes in periodic limb movements (PLMs) and sleep architecture. RESULTS: Patients under treatment with pregabalin had a greater improvement in IRLS score than under placebo (63% vs 38.2%; p < 0.05). The mean effective dose of pregabalin at the end of treatment was 322.50 mg/day (+/- 98.77), although therapeutic effects were already seen at a mean dose of 139 mg/day. Similarly, improvements were observed on the CGI, RLS-6 scale, and the Medical Outcomes Study sleep scale (all p < 0.01) when compared to placebo. Treatment with pregabalin also resulted in a reduction of the mean (+/- SD) PLM index (p < 0.001). Furthermore, there was a marked improvement in sleep architecture with an increase in slow wave sleep (p < 0.01), and decreases in wake after sleep onset and stages 1 and 2 (p < 0.05). Pregabalin was generally well-tolerated. Adverse events were mild but common, and included unsteadiness, daytime sleepiness, and headache. CONCLUSIONS: This study shows significant therapeutic effects of pregabalin on both sensorial and motor symptoms in restless legs syndrome. Treatment with pregabalin was associated with an improvement of sleep architecture and periodic limb movements. Adverse events included unsteadiness and sleepiness and should be screened carefully in the working population, particularly when pregabalin is administered in the afternoon. Classification of evidence: This study provides Class II evidence that pregabalin is effective for the treatment of restless legs syndrome and improves sleep architecture and periodic limb movements in placebo-unresponsive patients.

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Expert Opin Pharmacother. 2010 Apr 28. [Epub ahead of print]

**Expert opinion on pharmacotherapy of narcolepsy.**

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Abstract

Importance to the field: Narcolepsy is a neurodegenerative disorder resulting in the instability of the sleep-wake cycle and marked by low levels of hypocretin in cerebrospinal fluid. Sleep instability is marked by brisk, sleep-onset REM periods and sleep fragmentation, while the waking state is interrupted by the intrusion of REM sleep and sometimes accompanied by cataplectic attacks. Areas covered in this review: Current pharmacologic interventions that aim to address three primary features of this disorder; excessive daytime sleepiness (EDS), cataplexy and automatic behaviors, and sleep fragmentation. We review and compare the use of traditional and new stimulants in the treatment of EDS. For the treatment of cataplexy and automatic behaviors, serotonergic and noradrenergic agents are considered. The role of gamma-hydroxybutyrate (GHB) is also explored in its ability to reduce daytime sleepiness and catapletic attacks and to consolidate sleep. Findings are based on a PubMed literature search of clinical and basic science research papers spanning 1977 - 2009. What the reader will gain: A comprehensive understanding of the various existing and promising future treatments for narcolepsy. For each of these treatments, we evaluate risks versus benefits of treatment, and proposed pharmacologic mechanisms of action. We conclude with a review of new treatment approaches, including thyrotropin-releasing hormone (TRH), histamine agonists, immunotherapy and hypocretin replacement therapies. Take home message: Narcolepsy is an autoimmune, neurodegenerative disorder that results in significant sleep-wake instability with or without cataplectic attacks. Current treatments aim symptomatically to reconsolidate the sleep and waking states and to reduce daytime
attacks of cataplexy. Future treatments aim primarily towards correcting the causal deficiency of hypocretin or preventing the autoimmune response that results in the loss of hypocretin cells.

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A Role for REM Sleep in Recalibrating the Sensitivity of the Human Brain to Specific Emotions.

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Abstract

Although the impact of sleep on cognitive function is increasingly well established, the role of sleep in modulating affective brain processes remains largely uncharacterized. Using a face recognition task, here we demonstrate an amplified reactivity to anger and fear emotions across the day, without sleep. However, an intervening nap blocked and even reversed this negative emotional reactivity to anger and fear while conversely enhancing ratings of positive (happy) expressions. Most interestingly, only those subjects who obtained rapid eye movement (REM) sleep displayed this remodulation of affective reactivity for the latter 2 emotion categories. Together, these results suggest that the evaluation of specific human emotions is not static across a daytime waking interval, showing a progressive reactivity toward threat-related negative expressions. However, an episode of sleep can reverse this predisposition, with REM sleep depotentiating negative reactivity toward fearful expressions while concomitantly facilitating recognition and ratings of reward-relevant positive expressions. These findings support the view that sleep, and specifically REM neurophysiology, may represent an important factor governing the optimal homeostasis of emotional brain regulation.

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