



## Sleep Disorders 1

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#### Antidepressant-induced sleep bruxism: Prevalence, incidence, and related factors

A. Uca<sup>a</sup>, F. Uğuz<sup>b</sup>, H. Kozak<sup>a</sup>, H. Gümüş<sup>c</sup>, F. Aksoy<sup>b</sup>, A. Seyithanoğlu<sup>a</sup>, H. Güncü Kurt<sup>b</sup>. <sup>a</sup>Department of Neurology, Meram Faculty of Medicine Necmettin Erbakan University, Konya, Turkey; <sup>b</sup>Department of Psychiatry, Meram Faculty of Medicine Necmettin Erbakan University, Konya, Turkey; <sup>c</sup>Clinic of Neurology, Manisa Merkezefendi State Hospital, Manisa, Turkey

**Background:** The relationship between sleep bruxism and antidepressant drugs in patients remains unclear.

**Objective:** In this study, we aimed to investigate the incidence rate of antidepressant-related bruxism, and to examine whether or not antidepressant use is associated with this side effect in the patients.

**Patients and methods:** The study sample was gathered from 2 hospitals. A total of 807 patients who met the criteria of inclusion were included in the study. The sample was divided into 2 groups: antidepressant group (n = 506) and the control group (n = 301). The sleep bruxism was established with reports from the study participants on the basis of the International Classification of Sleep Disorders: Diagnosis and Coding Manual Second Edition.

**Results:** The prevalence of bruxism was significantly higher in the antidepressant group (24.3%) than the control group (15.3%). The incidence of antidepressant-induced bruxism was 14.0%. The antidepressants most associated with bruxism were paroxetine, venlafaxine, and duloxetine. The patients experiencing antidepressant-induced bruxism had higher age compared to those who did not suffer from this side effect.

**Conclusions:** The results of the present study suggest that bruxism are frequently observed in women taking antidepressants and that it appears to be associated with antidepressant use at least in some patients.

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### Sleep Disorders 1

#### Improvement on serum testosterone levels with obstructive sleep apnea (OSA) treatment. Preliminary analysis

P. Contreras Nuñez<sup>a</sup>, P. Moya Santibañez<sup>a</sup>, J. Carrillo<sup>b</sup>, J. Godoy Fernandez<sup>a</sup>, J. Santin Martinez<sup>a</sup>. <sup>a</sup>Neurología, Universidad Católica de Chile, Santiago, Chile; <sup>b</sup>Neurología, Hospital San Luis de Buin, Santiago, Chile

**Introduction:** Neuroendocrine secretion is regulated by sleep. OSA can impair hormone secretion with a decrease in pituitary function and morning serum testosterone levels. This can affect negatively libido and fertility. There is a paucity of studies evaluating this.

**Methods:** Ambulatory males (20 to 50 years-old) were consecutively recruited from a Sleep Disorder Clinic, between August and December 2012. All underwent a clinical and anthropometric evaluation, a Epworth Sleepiness Scale (ESS), and polysomnography (PSG). We selected subjects with OSA defined as an apnea-hypopnea index (AHI)  $\geq 5$ /h. Subjects with diabetes; hypothyroidism; pituitary tumors; morbid obesity and on chronic steroid treatment were excluded. We included 31 subjects of which 8 (25.8%) completed the study. Six were treated with CPAP and two with oral appliances. Sex hormone binding globulin (SHBG) protein, total and free testosterone levels were measured at baseline and at three months of OSA treatment.

**Results:** We studied 8 subjects of mean age 43. Mean BMI 31.3. Mean AHI 47.3, events/h. Hormone levels at baseline and follow up were: Total testosterone 228.1 ng/ml and 259.1 ng/ml (p = 0.012); free testosterone 7.4 pg/ml and 9.2 pg/ml (p = 0.012); SHBG 15.3 nmol/l and 17.4 nmol/l (p = 0.05). Baseline ESS was 15.2. On follow up ESS was 3.2 (p = 0.018). BMI did not change significantly (p = 0.553).

**Conclusion:** A significant increase in SHBG protein, total and free testosterone levels was observed after 3 months of treatment of OSA. This suggests that the improvement on libido reported on subjects treated with CPAP could be related to the increase in serum hormone levels and decrease in subjective daytime somnolence.

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### Sleep Disorders 1

#### Quantitative analyses of REM sleep without atonia in patients with voltage gated potassium channel antibody syndrome

E. St. Louis, E.A. Lieske, S.J. McCarter, B.F. Boeve, M.H. Silber, A.J. McKeon. Neurology, Mayo Clinic, Rochester, USA

**Background:** Voltage-gated potassium channel antibody syndrome (VGKC-AS) is an autoimmune disorder with prominent neurological and sleep disturbances, including limbic encephalitis (LE) and REM sleep behavior disorder (RBD). We analyzed REM sleep without atonia (RSWA) in VGKC-AS patients.

**Design:** We comparatively analyzed RSWA between VGKC-AS patients (n = 18) with (n = 7) and without (n = 11) RBD, controls, and RBD (n = 18) without VGKC-AS. REM muscle activity was compared in the submental (SM) and anterior tibialis (AT) muscles, and the automated REM atonia index (RAI) was calculated. Statistical