

## B. Clinical Sleep Science

0821

### SLOW-WAVE SLEEP AWAKENING FREQUENCY AND PARASOMNIAS COMPLAINTS IN MACHADO-JOSEPH DISEASE (SCA3)

Silva GM, Santos DF, Pedrosa JL, Shiraishi DR, Barsottini OG, Carvalho LB, Prado LB, Prado GF  
Neuro-Sono, Neurology, Unifesp, São Paulo, Brazil

**Introduction:** Machado-Joseph Disease, also known as Spinocerebellar Ataxia type 3 (SCA3) may be the most common dominantly inherited ataxia in the world. In neurodegenerative diseases, sleep disorders have been recognized, although still under or even misdiagnosed. In the specific ataxia group, studies have been emerging now to clarify the variety of sleep disorders in this population.

**Methods:** 44 SCA3 patients and 44 controls were selected and submitted to a polysomnography. They were evaluated for the awakening from slow-wave sleep presence. All of one answered the John Hopkins model survey about sleep complaints, including the ones which could suggest parasomnias. There have been used the Qui-square and Fisher tests to research slow-wave sleep awakening presence comparing the SCA3 patients group and the controls, for  $p < 0.05$ .

**Results:** Among the SCA3 patients, 73% have had slow-wave sleep awakening during the polysomnography time, with a significant higher frequency compared with control patients group ( $p < 0.0001$ ), without difference between males and females. Complaints related to parasomnias were observed with higher frequency in the patients with slow-wave sleep awakening.

**Conclusion:** Sleep disorders are common complaints in SCA3 patients, and among the parasomnias just the REM behavioral disturbance has been described as prevalent in this population in literature. In the present study there have been observed that SCA3 patients present a higher slow-wave sleep awakening quantity and these events have been associated with higher prevalence of parasomnias complaints in this group. These findings etiology has not yet been explained.

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### A SYMPTOM CLUSTER MODEL OF SLEEP AND FATIGUE AMONG PATIENTS WITH CANCER

Simpson S<sup>1</sup>, Kloss JD<sup>1</sup>, Barsevick A<sup>2</sup>

<sup>1</sup>Psychology, Drexel University, Philadelphia, PA, USA, <sup>2</sup>Medical Oncology, Thomas Jefferson University, Philadelphia, PA, USA

**Introduction:** Sleep disturbance is one of the most distressing symptoms among patients with cancer and is associated with negative outcomes of decreased quality of life, poor treatment compliance, or physical or psychological symptoms such as pain, fatigue, and depressed mood. Conceptualizing symptoms as clusters is a way to investigate sleep disturbance and its relationships to other physical and psychological symptoms commonly experienced in patients with cancer. The study purpose was to evaluate the role of sleep disturbance among a cluster of symptoms commonly experienced in patients with cancer using a prospective mediation model. It was hypothesized that pain and depressed mood would mediate the relationship between sleep disturbance and fatigue over a one month period.

**Methods:** A secondary analysis using data collected from a pilot study of symptom clusters in patients with cancer undergoing chemotherapy was conducted. The sample consisted of 104 patients with heterogeneous diagnoses of cancer (82.7% female, 90.4% Caucasian, mean age of 55.6). Indices of physical and psychological symptoms were collected at three time points, (T1, T2, T3), during a one month period and analyzed using a prospective mediational model.

**Results:** Bootstrapping analyses indicated that our proposed model was significant. Pain (IE=.060, se=.033, LL=.0117, UL=.1420) and depressed mood (IE=.023, se=.017, LL=.0004, UL=.0686) at T2 mediated the relationship between sleep disturbance at T1 and fatigue at T3.

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**Conclusion:** Symptom experiences in patients with cancer are complex. This model may provide one potential avenue to develop interventions that target not only individual symptoms but also consider how symptoms interact within the symptom cluster. Findings provide insight into mechanistic properties of the symptom experience, provoking ideas for future studies aimed at ideal treatment of symptom suffering in patients with cancer such as treating multiple symptoms within the cluster through the treatment of a single symptom.

0823

### SHOULD SCREENING FOR OBSTRUCTIVE SLEEP APNEA BE ROUTINE FOR PRIMARY CARE PATIENTS WITH METABOLIC SYNDROME?

Bailes S<sup>1,4</sup>, Baltzan M<sup>6,7,4</sup>, Grad R<sup>1,4</sup>, Pavilanis A<sup>2,4</sup>, Rizzo D<sup>1,5</sup>, Samadian F<sup>3,1</sup>, Tran D<sup>1,4</sup>, Creti L<sup>1</sup>, Fichten CS<sup>1,4,6</sup>, Libman E<sup>1,4</sup>

<sup>1</sup>Jewish General Hospital, Montreal, QC, Canada, <sup>2</sup>St. Mary's Hospital Centre, Montreal, QC, Canada, <sup>3</sup>OSR Medical, Montreal, QC, Canada, <sup>4</sup>McGill University, Montreal, QC, Canada, <sup>5</sup>Universite de Montreal, Montreal, QC, Canada, <sup>6</sup>Dawson College, Montreal, QC, Canada, <sup>7</sup>Mount Sinai Hospital Centre, Montreal, QC, Canada

**Introduction:** Obstructive sleep apnea (OSA), though very prevalent in older, primary care patients, is difficult to detect based on patient-reported symptoms alone, and is, therefore, under-recognized and under-treated. A large percentage of older, primary care patients are diagnosed and treated for components of the metabolic syndrome (MSC) (i.e., hypertension, hyperlipidemia, diabetes, obesity). Recent research has implicated OSA as an independent risk factor for the metabolic syndrome. The present study examines the presence and severity of OSA in a previously unscreened sample of older, primary care patients with and without MSCs.

**Methods:** 56 patients (64% women, mean age = 54) were recruited from two Montreal family practice settings. Participants were offered an overnight polysomnography study in a board certified sleep laboratory. Data were collected regarding their current health status, including BMI, diagnoses of hypertension, hyperlipidemia, and diabetes.

**Results:** A very high percentage of the participants (87%) received a diagnosis of OSA. Of those with OSA, 57% percent had a current diagnosis of one or more MSCs. Of those with at least one MSC, 85% had OSA. The mean respiratory disturbance index (RDI) increased and the mean oxygen saturation (SpO2) decreased with increasing number of MSCs. Severe OSA, RDI > 40, was associated with the presence of either hypertension or hyperlipidemia; particularly severe OSA was associated with obesity (RDI > 60). The most severe reduction of SpO2 was associated with the presence of diabetes (n = 10).

**Conclusion:** In this previously unscreened, older primary care sample, we found a high presence of OSA. The type and number of metabolic syndrome conditions were associated with increased severity of respiratory disturbance and oxygen desaturation. Though these results may be limited to patients motivated to pursue a sleep assessment, they suggest that the presence of any MSC should prompt a referral for OSA screening.

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0824

### NEURO-SONO SCALE STRATIFIES RISK OF OSAS IN ASTHMATIC PATIENTS: PRELIMINARY DATA

Malta JS<sup>1</sup>, Carlos K<sup>1</sup>, Krueger K<sup>1</sup>, Prado AF<sup>2</sup>, Prado LB<sup>1</sup>, Freire T<sup>1</sup>, Souza-Silva W<sup>1</sup>, Martins DT<sup>1</sup>, Carvalho LB<sup>1</sup>, Prado GF<sup>1</sup>

<sup>1</sup>Neurology, Universidade Federal de Sao Paulo, Sao Paulo, Brazil, <sup>2</sup>Universidade de Sao Paulo, Sao Paulo, Brazil

**Introduction:** Neuro-Sono Scale (NSS) predicts the chance of OSAS occurrence according to the variables: high blood pressure (HBP), snoring, vascular disease, body mass index (BMI), age and neck circumference (NC). Although asthma and OSAS are quite prevalent many