

Conclusion: Sleep problems such as sleep-disordered breathing, sleep-related anxiety and sleep associations, disturbed sleep patterns at night, and excessive daytime sleepiness are frequent in subjects with SLOS.

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PRESENCE OF SLEEP DISORDERS SYMPTOMS IN PRIMARY CARE PATIENTS WITH AND WITHOUT ASSOCIATED MEDICAL CONDITIONS

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Introduction: The goal of the present study was to assess the presence and severity of self-reported sleep disorder symptoms in primary care patients with no prior identified history of sleep disorder. In addition, we examined these symptoms in the context of the following commonly associated medical conditions: cardiovascular disease (CD), hypertension (HT), hyperlipidemia (HL), diabetes (DI), and overweight/obesity (OB).

Methods: The participants were 167 adult patients (91 females, 76 males) aged 32 to 84 (M = 54.6, sd = 13.1), recruited from two primary care settings. While waiting to see their doctor, they completed the SSC, an 18-item screening instrument including signs and symptoms of sleep disorders reduced to three factors: Sleep Disorder, Daytime Distress, and Insomnia. During their appointment, the doctor indicated which, if any, of the medical conditions characterized the patient's recent medical history.

Results: The mean SSC subscale scores of participants having no medical condition (n = 77) and each of the medical conditions were compared: CD, n = 13; HT, n = 36; DI, n = 30; HL, n = 48; OB, n = 55. Significant differences were found between the No medical conditions group and each of the DI, HL, and OB groups on the SSC Sleep Disorder subscale. Many patients had more than one medical condition. Those with three or more medical conditions had more severe Sleep Disorder scores than those with none, or with one or two medical conditions. No significant differences were found for the Daytime Distress or Insomnia subscale scores.

Conclusion: Primary care patients with hyperlipidemia, diabetes, or obesity, or with three or more medical (cardio/metabolic) conditions report more severe sleep disorder symptoms (other than Insomnia) than those without these conditions. Increased attention to these risk profiles in primary care would improve screening and treatment of sleep disorders.

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NOCTURNAL GASTROESOPHAGEAL REFLUX DISEASE AND INSOMNIA: A LOOK AT SLEEP STAGE AND BODY POSITION

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Introduction: Various studies have sought to characterize the occurrence of gastroesophageal reflux (GER) during the sleep interval. This study specifically examined features of nocturnal acid reflux among patients with chronic sleep maintenance insomnia in an effort to further elucidate the interplay between sleep and gastroesophageal reflux disease.

Methods: Thirty-one patients suffering from chronic sleep maintenance insomnia (duration > 6 months) with a BMI < 30, no history

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of snoring, no history of acid reflux, and no ongoing reflux therapy were evaluated with concomitant standard overnight polysomnogram (PSG) and 24 hour dual-chamber wired pH study. Of these patient's, ten individuals had objective evidence of insomnia (sleep efficiency < 83%) and at least one episode of reflux (pH < 4 for 15 seconds) in the recumbent position. Using the PSG data, each episode of reflux was evaluated to determine the patient's sleep stage and body position.

Results: Among ten patients with objective evidence of insomnia, 61 separate episodes of reflux were documented. These episodes were examined to determine PSG stage (Wake 75.4%, Stage I/II 16.2%, Stage III 4.9%, and REM 3.3%) as well as recumbent body position (Left 26.25%, Right 36.3%, Supine 37.5%). A significantly greater number of reflux events occurred during wakefulness as compared to sleep (P < 0.05), with analysis of variance between the 4 PSG stages reaching statistical significance as well (P = 0.001). In contrast, there was not a significant difference in the distribution of reflux events among the various recumbent positions.

Conclusion: These preliminary results suggest that the incidence of nocturnal acid reflux varies significantly between wakefulness, light sleep, slow wave sleep and rapid eye movement sleep. This finding provides further support for the distinct physiology of the gastrointestinal tract in wakefulness and the various stages of sleep. Furthermore, it provides a possible etiology for sleep disruption in patient's suffering from chronic sleep maintenance insomnia.

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SLEEP MICROSTRUCTURE IN PATIENTS WITH GASTROESOPHAGEAL REFLUX AND OSAS

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Introduction: Recent observations underline the importance of nocturnal gastroesophageal reflux (GER) and its possible correlations with obstructive sleep apnea syndrome (OSAS). However, polysomnographic (PSG) data on the interactions between the two diseases and their effects on sleep structure are scarce. Aim of this work is to evaluate cyclic alternating pattern (CAP) and the characteristics of GER episodes in patients with and without OSAS and correlations between different kinds of events.

Methods: Seventeen consecutive patients with a clinical history suitable for OSAS and GER syndrome were enrolled in the study. All patients underwent nocturnal PSG recording and a simultaneous esophageal pH monitoring. After PSG evaluation, patients were divided in OSAS (6 male subjects, mean age: 53,3 ± 11,7 yrs.) and 11 non-OSAS (6 males and 5 female, mean age: 52,6 ± 9,3 yrs.). Beside conventional PSG and pHmetric variables and their correlations, CAP parameters were measured and temporal correlations between apneas, refluxes and microstructural modifications were examined.

Results: Non-OSAS patients presented reflux episodes during wakefulness, while OSAS patients mostly during sleep with a significant association with CAP. Recorded refluxes were longer if associated to non CAP sleep as compared to CAP and in OSAS patients as compared to non OSAS patients. Reflux events provoked an increase of CAP rate during episodes. Ninety-three percent of the reflux episodes were temporally related to respiratory events in OSAS patients

Conclusion: Our data suggest that CAP could play a major role in sleep modifications due to gastroesophageal reflux, but also in the modulation of GER itself. The utility of different approaches to evaluate sleep in this kind of pathology is underlined.