fashion.
Results : The mean CSF Mg levels are higher in RLS patients than controls (2.87 vs. 2.60 mg/dL). However, consistent with previous literature, serum levels of Mg are lower in RLS patients than controls (2.11 vs 2.22 mg/dL). The CSF-serum difference for Mg is thus significantly greater for RLS patients than controls ($p < .05$). There is a positive correlation for CSF and serum Mg for controls ($r = + 6.75$, $p < .05$), whereas there is no meaningful correlation for RLS patients ($r = -.086$, $p = 0.8$). Results were similar when the familial RLS patients were analyzed separately.
Conclusion : . These results suggest increased active transport from serum to CSF in RLS patients as compared to controls and that the transport is not done in a linear fashion in RLS patients as opposed to the linear transport in controls. Previous studies have implicated iron, dopamine and endogenous opioid deficiencies as pathogenetic in RLS. The known interaction of Mg with the iron transport system and with dopamine and opioid receptors is a possible way that Mg may modulate the symptoms of RLS.
Support (optional): This research was supported by the German Restless Legs Syndrome patient support group, the German Federal Ministry of Education and Research and the Department of Pathology and Laboratory Medicine, University of Louisville, KY.

0828

RESTLESS LEGS SYNDROME IN SCLERODERMA PATIENTS

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Introduction : Restless Legs Syndrome (RLS) is a neurological disorder associated to dopamine and iron metabolism problems. The patients have unpleasant sensations in the lower limbs with dysesthesia resulting in an urge to move the legs, mostly at night. Scleroderma is a rare progressive systemic sclerosis of unknown etiology, characterized by endothelial lesions and fibrosis of the skin and other organs. In a previous study we suggested that scleroderma patients were more allowed having RLS, but at that time we did not exclude from analysis patients with scleroderma and associated rheumatic condition. The objective of this study is to verify the prevalence of RLS in "pure" scleroderma patients compared to osteoarthrits patients.
Methods : 90 consecutive patients with scleroderma and 90 with osteoarthrits for control group will be evaluated for RLS symptoms. The scleroderma group must not have other comorbidities. All patients were interviewed for RLS and had filled in a sleep log for 6 weeks, to observe total sleep time (TST) and wake up after sleep onset (WASO).
Results : Until this moment, 19 patients with scleroderma (48±11 years old) and 14 with osteoarthrits (62±7years old) had been evaluated. In the scleroderma group 3/19 (16%) patients presented RLS symptoms and 3/14 (21%) in the group osteoarthrits ($p=0.51$). The TST was 6h48min ±1h51min for scleroderma patients and 5h32min ±2h25min for osteoarthrits patients ($p=0.17$). The WASO was 27min ±33min for scleroderma patients and 1h20min ±1h3min for osteoarthrits patients ($p=0.02$).
Conclusion : Our preliminary data showed that RLS is equaly prevalent in the scleroderma and osteoarthrits groups. The osteoarthrits groups presented a WASO greater than scleroderma group. The sample was not enough to conclude for the association
Support (optional): Supported by FAPESP #99/08189-6

0829

PREVALENCE OF HEADACHE AND NECK PAIN IN A SLEEP BRUXISM POPULATION INVESTIGATED IN A SLEEP LABORATORY

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Introduction : Sleep bruxism (SB) has been studied for over a decade in our sleep research laboratory. The objective of this retrospective analysis is to report the prevalence of headaches, neck or shoulder pain and morning fatigue in SB subjects.
Methods : SB subjects were selected according to tooth-grinding history (>3 nights/week), without trauma or chronic pain history. All subjects completed questionnaires for SB/pain diagnostic and sleep disorders (Canadian Sleep Society). SB diagnosis and absence of other sleep disorders were confirmed by 2 nights of polygraphic recordings. Sleep and SB variables were analyzed based on previously validated criteria. The following polygraphic criteria were used to identify SB subjects: > 4 SB episode/hour of sleep, > 25 SB bursts/hour of sleep and > 1 episode with grinding noise. SB subjects were divided in 2 groups based on the afore mentioned criteria: low SB subjects failed in 2 out of the 3 criteria and high SB subjects met at least 2 criteria. A total of 21 controls (mean age±SEM: 22.90±0.65), 38 low SB (26.71±0.88) and 41 high SB (24.78±0.70) subjects were selected. Chi-square and odds ratios (OR), with their 95% confidence intervals were used to compare answers between both SB groups and between each SB groups and the control group.
Results : Headaches or migraines, occurring occasionally to frequently, were reported twice more often in SB groups (low SB: 52.6%; high SB: 51.2%) than in controls (19%), with OR of 4.7 [1.3-16.7] and 4.5 [1.3-15.6] respectively. Reported morning headaches were also significantly higher in SB groups (low SB: 32.4%; high SB: 17.6%) than in controls (0%). Furthermore, neck or shoulder pain were reported more frequently in both SB groups (low SB: 68.4%; high SB: 68.4%) in comparison to controls (23.8%), with high OR (low SB: 6.9 [2.1-23.3], high SB: 5.7 [1.8-18.9]). Fatigue upon awakening was reported 5 times more in SB groups (low SB: 43.8%; high SB: 41.2%) than in controls (8.3%), with nearly significant OR (low SB: 8.6 [0.98-74.4], high SB: 7.7 [0.89-66.6]).
Conclusion : High prevalence of reported headache/migraine and neck/shoulder pain in SB subjects support the need for further investigations to study possible common mechanisms and association.
Support (optional): CIHR, FRSQ, CFI

0830

MYOCLONIC HEAD JERKS IN REM SLEEP: A COMMON AND AGE DEPENDENT FEATURE IN A SLEEP LABORATORY PATIENT POPULATION

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Introduction : Myoclonic events are common in wake-sleep transition (hypnic jerks). During REM sleep movements are rare because of physiologic muscle atonia, but both random myoclonic twitching and sleep myoclonus are well known phenomenons during REM sleep. We intended to quantify the occurrence of myoclonic jerks in REM-sleep and focused on head jerks since these movements are readily identified in EMG and videographic recording.
Methods : We examined REM sleep of all patients admitted to our sleep

laboratory in a course of six months. From January to June 2004 205 patients underwent polysomnographic recording (one to four nights). 147 patients (71.7%) were men, 58 (28.3%) were women, mean age was 50±14.4 years (range 14 to 82). REM sleep was examined visually in the PSG (occurrence of movement artifacts or myoclonic muscle activity) and by video by one scorer.

Results : 472 nights of 205 patients were analyzed. 112 patients (54.6%) showed head jerks during REM sleep, 93 patients (45.4%) did not. Patients with head jerks had a mean of 3.29±5.16 (range 1 - 44) jerks. We compared the occurrence of head jerks in different age groups. In the youngest patient group aged below 45 years (n=72) head jerks were detected in 48 patients (66.7%), in the group between 45-60 years (n=72) head jerks were present in 39 patients (54.2%) and in the oldest patient group above 60 years (n=61) head jerks were seen in 25 patients (41%). The association between head jerks and age was significant (chi-square test, p=0.012).

Conclusion : Our data confirm previous observations that head jerks are frequent in REM sleep and might represent a physiological phenomenon. Furthermore a significant difference in the occurrence of head jerks in different age groups was observed with a higher prevalence in younger individuals.

Support (optional):

0831

PRAMIPEXOLE TREATMENT RAPIDLY IMPROVES PATIENT RATINGS OF RESTLESS LEGS SYNDROME SYMPTOMS

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Introduction : Pramipexole (PPX) has been shown to be effective in several multicenter clinical trials in restless legs syndrome (RLS). This data analysis describes the rapid onset of action of pramipexole during a 12-week, randomized, double-blind, placebo-controlled, forced-titration, clinical trial conducted in the United States.

Methods : Three hundred forty-four patients with moderate to severe RLS were randomized to placebo, 0.25, 0.50, or 0.75 mg/d PPX. Doses were up-titrated weekly, beginning with 0.125 mg PPX. Data from the Patient Global Impression (PGI) scale were used in this analysis. The PGI is a 7-point scale in which patients rate themselves from "very much better" (score = 1) to "very much worse" (score = 7).

Results : Pramipexole significantly improved PGI ratings relative to placebo. When data in the pramipexole group were collapsed across doses, 61.4% of patients were PGI responders ("very much better" or "much better") after 12 weeks, compared with 44.7% in the placebo group (P = .0056). The effects of pramipexole on PGI responder rates were evident within the first week of treatment, at which point in titration, all patients were receiving 0.125 mg PPX. After 1 week, the PGI responder rate was significantly higher (P<.0001) in the pramipexole group (42.5%) compared with the placebo group (14.1%).

Conclusion : Pramipexole, at a low titration dose of 0.125 mg, significantly improved PGI scores by week 1. This improvement in patient ratings was maintained throughout the 12-week trial. As the therapeutic effects of low-dose pramipexole were apparent at the 0.125-mg dose, patients may achieve rapid effectiveness with minimal side effects.

Support (optional):

0832

ROLE OF CYTOKINES IN PATIENTS WITH RESTLESS LEGS SYNDROME(RLS)

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Introduction : Restless Legs Syndrome (RLS) can have a course of remission and recurrence which seems similar to certain immunological diseases with elevated cytokines levels such as Multiple Sclerosis. Cytokines levels have not been determined previously in RLS.

Methods : We included 11 patients (M=6,F=5, Avg age-51.5 yrs) with RLS and 11 age and sex matched controls (M=6,F=5, Avg age-51.2yrs) in the study. We excluded RLS patients and controls with illnesses that can cause raised cytokine levels. The patients were maintained on RLS medications to maintain adequate sleep and matched against controls for total sleep time (TST) by a sleep log. The samples were collected from serum at the same time (i.e. 10 am) for all the patients and the controls. The samples were then analyzed blindly for the presence and the levels of the following cytokines Interferon Gamma, TNF alpha, IL1B, IL 6, IL12 and IL 4.

Results : We did not find any difference in the levels of the 6 cytokines in the patients vs the controls after matching for age, sex and TST. We found no difference in cytokines levels in 5 RLS patients treated with dopaminergic agents and the 6 RLS patients treated with nondopaminergic agents. We did not find any correlation between the cytokine levels of all the RLS patients as well as those with only a family history of RLS and the severity of RLS as determined by the IRLS scale and a visual analogue scale. For the patients with a positive family history for RLS, we also correlated the subscales of the IRLS (Impact and symptom subscales) and the single question 3 from the IRLS scale (that is not on any subscale) to the levels of different cytokines but again did not find any statistical significance.

Conclusion : We did not find any relation of the 6 cytokine levels to the presence or severity of RLS. Other immunological factors such as TCD4 lymphocytes, TCD8 lymphocytes and CD19 B cells need also to be studied to see if they have a relation with RLS.

Support (optional):

0833

PREVALENCE OF RLS AND DEPRESSION IN TYPE 2 DIABETES

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Introduction : Diabetes is the 5th leading cause of death affecting 6.2% of the population, with direct costs of $91.8 billion dollars and indirect costs of $40.2 billion dollars (1). Restless Legs Syndrome is a sleep disorder affecting up to 15% of the population (2-4) and may compromise diabetic control due to sleep deprivation, fatigue, and depression. Twenty-one per cent of persons with RLS have diabetes (5), a prevalence over three times that of the general population. There are no reports on the prevalence of RLS in the diabetic population. RLS is significantly associ-