Introduction

The Obstructive Sleep Apnea Syndrome (OSAS) is characterized by interruption or reduction of airflow during sleep despite respiratory effort, causing awakenings, oxyhemoglobin desaturation and excessive daytime sleepiness. It is considered a serious public health problem, according to recent national surveys prevalence up to 30% of the general population, reaching alarming levels [1,2]. OSAS can be undiagnosed in 80% of cases [3].

OSAS is more prevalent in men than women, and there is an increased prevalence among the elderly [1,4]. The prevalence of mild OSAS may vary from 3 to 28% of the adult population, whereas moderate to severe OSAS (AHI>15) may range from 1 to 14% [4].

The factors that increase the risk for OSAS are overweight and obese men and women, age, structural abnormalities in the upper airway, use of sedatives and alcohol, and probably familial history [5]. Long term complications, can lead to important cardiovascular changes, with serious socio-economic implications, deserving medical attention. Snoring, in turn, can significantly interfere in the social life of the patient [6].

The whole-night polysomnography study, which was carried out in the laboratory, is the gold standard method for the diagnosis of sleep disorders. The polysomnographic setting [7], enables the simultaneous registration of several biological variables. Electroencephalogram (EEG), electro-oculogram (EOG), electromyogram (EMG) of the mentalis and limbs, measurements of oronasal flow, thoraco-abdominal movement, electrocardiogram (ECG) and pulse oximetry, are the most commonsigns used among a wide setting variance of other sensors. Sleep fragmentation due to micro-awakenings secondary to sleep apnea or periodic leg movements may lead to reduced sleep on slow waves and REM [8]. The analysis of these data, faced with the normality standardization, provides us a better understanding of what happens during sleep.

Objective

The aim of this study was to better understand the sleep profile in a group of adults, through the use of polysomnography in a sleep laboratory, in an Otolaryngology Clinic.

Methods

This retrospective study involved data collected from 447 polysomnography tests, which included those from patients over 14 years old, carried out between the years of 2011 and 2014, in an Otorhinolaringology clinic. There were excluded from analysis tests in which the patient had Total Sleep Time (TST) below 120 minutes, and tests with data loss caused by overnight failure of the sensors.

The tests were performed according to AASM Scoring Manual 2007’s standards [9]. The analyzed data were based on age, gender, weight, height, BMI, neck circumference, Epworth Sleepiness Scale, in addition to test motive and the most relevant polysomnographic parameters, such as sleep architecture, sleep Apnea-Hypopnea Index (AHI), presence of snoring and oximetry.

The data were tabulated and the results are distributed, descriptively, in graphs and tables.

Results

The data for age, weight, height, BMI, neck circumference (NC) and Epworth Sleepiness Scale (ESS) were (Table 1):

As to Neurological parameters, it was found (Table 2):

As to respiratory parameters, it was found (Table 3):

Our study evaluate polysomographies from an ENT clinic. In this way, we concluded that our group was more likely to have respiratory disorders (RD). We have noticed that the main reason for polysomnography requests was due to respiratory disorder, with 84.53% of applications. Males were predominant,
with 71.46% of the patients. The mean AHI value of 22.5/h (SD 23.7) was much higher than expected, which corroborated the hypothesis of an existing pathological pro-

23.7) was much higher than expected, which corroborated the

foundations attributed to OSAS in the analyzed group

Although the average was in the normal range, the

mean BMI was 28.3 (SD 4.9) which may also

sustain the

was observed, similarly, an excessive fragmentation, evidenced by the increased average of arousals index, 24.9/h (SD 17.4). Future comparative analysis related to the data collected in this study will be carried out. We believe the importance for execution prospective studies, as well, improving the standardization of polysomnographic data to better understand the sleep behavior in our patients.

Conclusion

The studied group showed polysomnographic characteristics, both neurological and respiratory, attributed to Obstruc-
tive Sleep Apnea Syndrome (OSAS).

References


5. Mendes FA, Marone SAM, Duarte BB, Arenas ACP (2014) Epidemiologic Profile of Patients with Snoring and Obstructive Sleep Apnea in a University Hospital. Int Arch Otorhinolaryngol 18: 142-145. Link: https://tinyurl.com/yom9s2i


