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CLINICAL-EPIDEMIOLOGICAL PROFILE OF PATIENTS ADVISED FOR SLEEP DISORDERS IN A SPECIALIZED OUTPATIENT OF THE PUBLIC HEALTH SYSTEM

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Abstract: Sleep is a special physiological state that occurs cyclically, and its disturbances impact quality of life and lead to metabolic and cardiovascular disorders. The third edition of the international classification of sleep disorders (ICSD-3) classifies them as: insomnia disorder, sleep-related breathing disorders, central hypersomnolence disorders, circadian sleep-wake rhythm disorders, parasomnias and movement disorders. This study aimed to understand the clinical and epidemiological profile of patients treated at the outpatient clinic specializing in sleep disorders, of the public otorhinolaryngology and neck-facial surgery service in the city of Manaus-AM, between January 2019 and May 2021. Sample data analyzed were obtained from 72 medical records, in which it was observed that the sleep disorder had a higher prevalence in females, predominating in the age group between 51-60 years. Regarding lifestyle habits, both sexes showed a relationship with alcohol consumption (32.26%), tobacco use (11.1%) and (73.9%) were above normal weight. Regarding the use of medications, 44.68% of patients reported using some hypnotic class. In the comorbidities item, systemic arterial hypertension (SAH) stands out in 44.62% of the individuals analyzed. The most prevalent diagnosis was obstructive sleep apnea syndrome (45.5%), which is compatible with the finding that 35.59% of individuals had Mallampati grade IV. Statistically, none of these variables were found to interfere with sleep quality assessed using the chi-square test. Finally, it was concluded that in this specialized service the majority of patients are overweight women and that obstructive sleep apnea is the most prevalent disorder.
Keywords: Clinical-epidemiological profile; sleep disorders; circadian rhythm

GENERAL GOAL

To study the clinical-epidemiological profile of patients complaining of sleep disorders at the Sleep Outpatient Clinic of ``Fundação Hospital Adriano Jorge`` (FHAJ) from January 2019 to May 2021.

INTRODUCTION

Sleep is considered a complex biological process that alternates with periods of wakefulness. Sleep-wake states are mediated by hormonal and neural modulations, such physiological processes modify body temperature, cardiac work and hormonal production (LUYSTER et al., 2012), leading to a restorative neurological state essential for growth (during childhood and adolescence), learning/memory and functioning of the organism (CARTER et al., 2011).

It is composed of two distinct states: rapid eye movement (REM) and non-rapid eye movement (NREM), which manifest themselves in cycles organized throughout a normal night's sleep (ZANUTO et al., 2015). However, disorders that affect these two states can lead to a worsening of quality of life and the long-term onset of metabolic and cardiovascular diseases (LUYSTER et al., 2012).

Since the 1950s, sleep has been recognized as an active neural process, absolutely necessary for homeostasis (BALBANI; FORMIGONI, 1999). Sleep in humans is a biological phenomenon that plays an important role in consolidating memory, increasing the immune response and conserving energy that allows the body to function (BELÍSIO, 2015).

In addition to quality of life, sleep disorders also compromise public safety, because they increase the number of industrial and traffic accidents (MÜLLER; GUIMARÃES, 2007). Estimates on the rate of accidents and deaths caused by drowsiness or tiredness range from 2% to 41%, with a high cost in financial terms and in life itself (MÜLLER; GUIMARÃES, 2007).

According to the 3rd edition of the International Classification of Sleep Disorders (ICSD-3), they are divided according to symptoms into Insomnia Disorder, Sleep-Related Breathing Disorders, Central Hypersomnolence Disorders, Circadian Sleep-Wake Rhythm Disorders, Parasomnias and Sleep-related movement disorders (SATEIA, 2014).

Insomnia is a disorder characterized by difficulty falling asleep, staying asleep or waking up before the desired time. This situation causes daytime impairment for patients, such as drowsiness, fatigue, deficits in attention, concentration, memory and family impairment. or work.

"Excessive daytime sleepiness is the inability to remain awake and alert during the day, resulting in drowsiness and unintentional sleep lapses" (BITTENCOURT et al., 2005). The severity of drowsiness varies, ranging from mild drowsiness to severe drowsiness in which involuntary lapses in sleep, amnesia and automatic behavior may be present.

The term sleep-disordered breathing describes a group of disorders characterized by: abnormal breathing patterns or insufficient ventilation during sleep. Either way, sleep-disordered breathing disrupts a patient's sleep pattern night after night, potentially overloading their nervous system and major organs.

Circadian rhythm-related sleep disorders are desynchronizations between sleep-wake rhythms. In general, patients experience insomnia, excessive daytime sleepiness, or both, which typically disappear when the biological clock realigns.

Parasomnias are defined as physical events or undesirable behaviors that occur during sleep. They encompass complex movements during sleep, as well as emotions, perceptions,

dreams and activity of the autonomic nervous system. And it can occur at any stage of sleep.

Sleep-related movement disorders are characterized by simple, typically stereotyped movements that disrupt sleep maintenance or initiation. Complaints of excessive daytime sleepiness or sleep disturbance at night are prerequisites for diagnosis.

There are methods to clinically assess sleep disorders, including some scales (Epworth Daytime Sleepiness Scale, Beck Anxiety Scale, Mini Sleep Questionnaire).

RESULTS

The data from the sample analyzed in this study were obtained from 72 medical records selected at the FHAJ Sleep Clinic. The epidemiological characteristics are presented in Table 1. It is observed that the average age of those evaluated was 51.85 years (±13.60 years).

Variable	N	Average	Standard deviation
Age	66	51,85	13,60
Height	59	1,60	0,10
Weight	57	81,32	24,80
BMI	57	31,34	8,28
Circular cervical	59	40,39	5,901
Gender		**Percentage**	
Female	41	62,12	
Male	25	37,88	
Marital status			
Single	18	30,51	
Married	27	45,76	
Other	14	23,73	

Table 1 - Clinical characteristics of patients with sleep disorders and percentage for sex and marital status.

*(The percentage was calculated in relation to the total responses)

In the pharynx classification, 35.59% of individuals presented Mallampati Grade IV, as shown in Table 2.

Mallampati	Counting	Percentage
Degree I	15	25,42
Degree II	13	22,03
Degree III	10	16,95
Degree IV	21	35,59

Table 2 - Percentage of the Score *Mallampati*.

*(The percentage was calculated in relation to the total responses)

Regarding lifestyle habits, 11.1% of people reported being smokers and 32.26% consumed alcohol, both more prevalent in males. Regarding the use of sleeping medications, 44.68% use some hypnotic class Table 3.

Medicine to sleep	N	Percentage
Yes	21	44,68
No	26	55,32

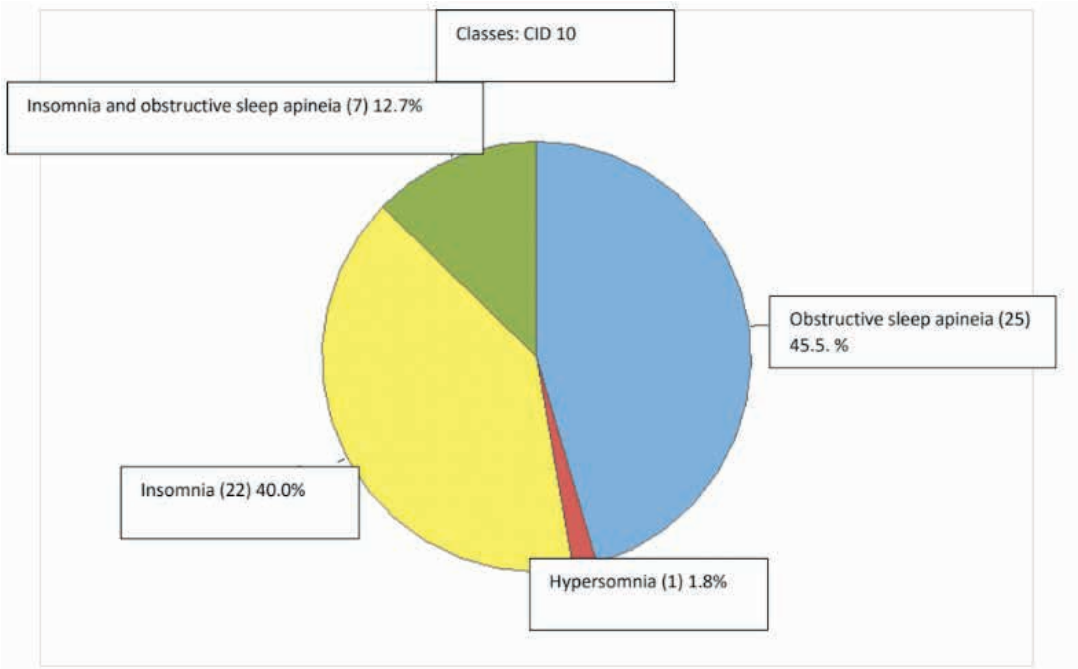
Table 3: Patients using any hypnotic class*.

*(Benzodiazepines, Selective Serotonin Reuptake Inhibitors, 2nd and 3rd generation hypnotics. The percentage was calculated in relation to the total responses. The percentage was calculated in relation to the total responses)

Regarding the prevalence of sleep disorders among the subjects in the sample, it is represented in the graph below.

Systemic Arterial Hypertension (SAH) was present in 44.62% of the patients, of 24 patients with Obstructive Sleep Apnea Syndrome (OSAS) 9 of them had SAH, of the 22 patients diagnosed with Insomnia 10 were hypertensive and of the 7 patients diagnosed with of the two disorders, only one of them was not hypertensive.

The high risk for OSAS, assessed by the Stop-Bang Questionnaire, was identified in 61.11% of patients. Regarding excessive daytime sleepiness assessed by the EPWORTH Scale, 43.4% of patients had some degree of sleepiness, while 22.63% were considered



Graph 1: Percentage of disorders according to the 3rd edition of the International Classification of Sleep Disorders.

Epworth	N	Percentage	Stop-Bang	N	Percentage
Normal	18	33,96	High risk of OSA	33	61,11
Borderline	12	22,64	Low risk of OSA	13	24,07
Mild drowsiness	13	24,53	Medium risk of OSA	8	14,81
Moderate drowsiness	6	11,32			
Severe	4	7,55			

Table 4: Percentage of patients with Excessive Daytime Sleepiness (Epworth) and Risk of Obstructive Sleep Apnea (Stop-Bang) *

*(The percentage was calculated in relation to the total responses)

borderline of the patients who underwent the exam. Table 4

Sleep quality was calculated from the Pittsburgh Questionnaire, where 54.7% had poor quality, while 45.3% had good quality. When comparing sex, women had worse sleep quality compared to men.

Correlating the variables and using the Chi-Square Test to evaluate the association between sleep quality and gender (p-value = 0.632), increasing age (p-value = 0.111), BMI (p-value = 0.597) and HAS (p-value = 0.292) it was found that none of these variables were found to interfere with the quality of sleep in relation to the data collected.

CONCLUSION

Finally, it was concluded that in this specialized service the majority of patients are overweight women and that obstructive sleep apnea is the most prevalent disorder and that none of the variables raised interfered with the quality of sleep.

REFERENCES

BALBANI, A. P. S.; FORMIGONI, G. G. S. Ronco e síndrome da apnéia obstrutiva do sono. **Revista da Associação Médica Brasileira**, v. 45, n. 3, p. 273–278, jul. 1999. https://doi.org/10.1590/S0104-42301999000300013.

BECK, A. T.; EPSTEIN, N.; BROWN, G.; STEER, R. A. An inventory for measuring clinical anxiety: psychometric properties. **Journal of Consulting and Clinical Psychology**, v. 56, n. 6, p. 893–897, dez. 1988. https://doi.org/10.1037//0022-006x.56.6.893.

BELÍSIO, A. S. DORMIR BEM: UMA QUESTÃO DE SAÚDE. **REVISTA HUMANO SER**, v. 1, n. 1, p. 88–98, 7 maio 2015. .

BITTENCOURT, L. R. A.; SILVA, R. S.; SANTOS, R. F.; PIRES, M. L. N.; MELLO, M. T. de. Sonolência excessiva. **Brazilian Journal of Psychiatry**, v. 27, p. 16–21, maio 2005. https://doi.org/10.1590/S1516-44462005000500004.

CARTER, P. J.; TAYLOR, B. J.; WILLIAMS, S. M.; TAYLOR, R. W. Longitudinal analysis of sleep in relation to BMI and body fat in children: the FLAME study. **BMJ**, v. 342, n. may26 2, p. d2712–d2712, 26 maio 2011. https://doi.org/10.1136/bmj.d2712.

CARVALHO, C. T. D. AVALIAÇÃO DA QUALIDADE DO SONO DE INDIVÍDUOS COM ESCLEROSE MÚLTIPLA. , p. 63, 2017. .

JOHNS, M. W. A new method for measuring daytime sleepiness: the Epworth sleepiness scale. **Sleep**, v. 14, n. 6, p. 540–545, dez. 1991. https://doi.org/10.1093/sleep/14.6.540.

LUYSTER, F. S.; STROLLO, P. J.; ZEE, P. C.; WALSH, J. K. Sleep: A Health Imperative. **Sleep**, v. 35, n. 6, p. 727–734, jun. 2012. https://doi.org/10.5665/sleep.1846.

MÜLLER, M. R.; GUIMARÃES, S. S. Impacto dos transtornos do sono sobre o funcionamento diário e a qualidade de vida. **Estudos de Psicologia (Campinas)**, v. 24, n. 4, p. 519–528, dez. 2007. https://doi.org/10.1590/S0103-166X2007000400011.

NEVES, G. S. M. L.; GIORELLI, A. S.; FLORIDO, P.; GOMES, M. da M. Transtornos do sono: visão geral. **Rev. bras. neurol**, 2013. Disponível em: http://files.bvs.br/upload/S/0101-8469/2013/v49n2/a3749.pdf. Acesso em: 2 maio 2021.

SATEIA, M. J. International Classification of Sleep Disorders-Third Edition. **Chest**, v. 146, n. 5, p. 1387–1394, nov. 2014. https://doi.org/10.1378/chest.14-0970.

ZANUTO, E. A. C.; LIMA, M. C. S. de; ARAÚJO, R. G. de; SILVA, E. P. da; ANZOLIN, C. C.; ARAUJO, M. Y. C.; CODOGNO, J. S.; CHRISTOFARO, D. G. D.; FERNANDES, R. A. Distúrbios do sono em adultos de uma cidade do Estado de São Paulo. **Revista Brasileira de Epidemiologia**, v. 18, n. 1, p. 42–53, mar. 2015. https://doi.org/10.1590/1980-5497201500010004.