http://www.arresearchpublication.com

INSOMNIA: A MEDICAL SLEEP DISORDER

Aafreen Khan¹, Ashmal Fatma², Mohd Maroof Siddiqui³

^{1, 2, 3} Department of ECE, Integral University, Lucknow(India)

ABSTRACT

Insomnia is common problem in general population nowadays. It caused by various factors such as medication, stress, jet lag or negative emotions. Studies have shown that people with insomnia suffer from more symptoms of anxiety and depression than people without insomnia. One showing drop in quality of work may be misapprehended as idleness or lack of enthusiasm.

Keywords: Insomnia, Sleep Onset, Sleep Maintenance, Chronic Insomnia

I. INTRODUCTION

Sleep is an element of everyone's daily life, and is a biological prerequisite in achieving adequate routine. Its disorder are among the most important health problems that go unreported, with consequences that involves growth. One of these disorders is insomnia.

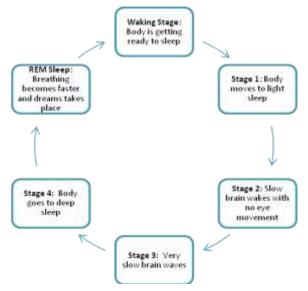


Figure 1: Sleep Stages

Insomnia is defined as difficulty in falling asleep and staying asleep. A person suffering from insomnia wakes up frequently during the night or wakes up early and feels exhausted, slow and not refreshed, with a helplessness to concentrate. It is also one of the important causes of daytime sleepiness. It is also, together with pain and fatigue, the most common disorder among all of us. Though insomnia is a widespread condition in our society, both doctors and patients are lacking in the knowledge about it. There are also no generally accepted standards of treatment.

Sleepless nights happen to everyone. Many scientists and most of the society think of insomnia as a natural reaction of the organism to tension or noise. The effects of insomnia can also include irritable mood and opinion and an increased possibility of accidents while driving or working with machines.

http://www.arresearchpublication.com

II. CLASSIFICATION OF INSOMNIA

2.1 According to Source

- **Primary insomnia:** When insomnia has no known cause and is not easily identifiable, the condition is called primary insomnia.
- Secondary or comorbid insomnia: This occurs when the sufferer has sleep problems because of something else, such as a health condition like asthma, depression, arthritis; pain; use of medication; or use of alcohol.

2.2 According to Sleep Pattern

- Sleep-onset insomnia: When the sufferer takes a long time to get to sleep, but can sleep through the night once sleep starts
- Sleep-maintenance insomnia: When the sufferer wakes frequently during the night and sleep is uneven

2.3 According to Duration

- **Transient insomnia:** Lasting less than a week. This is the most common and widespread form among the population
- Acute insomnia: Lasts between one and four weeks. It is related to stress factors, but more longer-lasting than for transitory insomnia.
- **Chronic insomnia:** Lasts for four or more weeks and may be due long-term physical or psychiatric illness or it may be due to no cause.

III. CAUSES OF INSOMNIA

Causes of insomnia can include:

- ➢ Significant life stress.
- ➢ Illness.
- ▶ Emotional or physical discomfort.
- > Difficulty in managing negative emotions.
- > Environmental factors like noise, light or temperatures (hot or cold) that interfere with sleep.
- Some medicines (for example those used to treat colds, allergies, depression, high blood pressure and asthma) may interfere with sleep.
- Anxiety
- > Interferences in your normal sleep routine (such as jet lag or switching from a day to night shift).
- Depression.
- Chronic stress.
- ➢ Fear of sleep
- Pain or discomfort at night.

IV. SYMPTOMS OF INSOMNIA

- difficulty falling asleep
- waking during the night and being unable to return to sleep

IJEEE, Volume 07, Issue 01, Jan-June 2015

ISSN-2321-2055 (E)

http://www.arresearchpublication.com

IJEEE, Volume 07, Issue 01, Jan- June 2015

- feeling not rejuvenated upon waking
- daytime sleepiness
- irritability or anxiety

V. DIAGNOSIS OF INSOMNIA

Because only one third of patients reported their sleep problems to physician (Szelenberger & Skalski, 1999, Pentor 2000), hence the first and foremost task in the diagnostic process is to find patients with sleep disorders. The most important diagnostic tool is the study of sleeping pattern; a sleep log must be created where information regarding sleep must be present. It is therefore recommended that the questions about the quality of sleep and mood in the morning are a regular part of every medical interview. Patients with insomnia should go immediately to their general practitioners and begin the correct treatment.

VI. TREATMENT OF INSOMNIA

In any case, if sleep problems persist for longer than 2-3 weeks and begin to negatively impact on functioning during the day, be sure to seek medical advice.

In the case of acute or short-term insomnia, especially in those prone to insomnia, it is necessary to take treatment as soon as possible. The patient places the sleeping pill, near the bed and reaches for it when cannot sleep. This treatment protects the patient against the occurrence of factors effect insomnia and prevents against the development of chronic insomnia. The use of medication for a short period is the simplest way.

In chronic insomnia, hypnotics are the drugs used for the treatment (no longer than 2-4 weeks). Additionally these drugs must be used for the short duration of time or else may lead to other side effects. The primary method of treatment for chronic insomnia is behavioural therapy.

VII. CONCLUSION

Research suggests that insomnia is a condition of hyperarousal caused by a relative shift in the balance of activity of the sleep-promoting and wake-promoting systems towards an increase in activity in wake-promoting systems. Insomnia is not a symptom of other disorders, but it is secondary to other medical conditions.

Insomnia occurs in 30–45% adults, and its prevalence is about 1.5–2 times more common in females than males. Much research is done by the researchers of western countries but little to none research is done in the Asian countries. Indian figures are unfortunately not known, but in the United States (US) alone, almost 60 million people complain of insomnia

About 50% of the elderly population report insomnia. Though insomnia is a common symptom of depression, there is increased duration of depression and deterioration. Severe insomnia leads to three times increase risk of hypertension

REFERENCES

- Flynn Pharma Ltd (2012). Insomnia. [online] Available from www.sleepwelllivewell.co.uk/sleepdiosorders/insomnia. [Accessed December, 2012].
- [2] Mohd. Maroof Siddiqui et al "EEG Signals Play Major Role to diagnose Sleep Disorder" International Journal of Electronics and Computer Science Engineering, ISSN 2277-1956/V2N2, 2013, Pg 503-505

ISSN-2321-2055 (E)

http://www.arresearchpublication.com

IJEEE, Volume 07, Issue 01, Jan-June 2015

- [3] Mohd.Maroof Siddiqui "Electronics Signal Help In The Treatment of Paralysis.", International Journal of Electronics Signal & System(IJESS), ISSN No : 2231-5969, volume 1 issue 2, 2012, Pg 63-67
- [4] Mohd. Maroof Siddiqui "Electronics Instruments Play Major Role In Diagnosis Processes", International Journal of Computing and Corporate Research(IJCCR), ISSN: 2249-054X, volume 2 issue 1, 2012
- [5] Hirshkowitz M, Sharafkhaneh A. Neuropsychiatric aspects of sleep and sleep disorders. In: Yudofsky SC, Hales RE(Eds). The American Psychiatric Publishing Textbook of Neuropsychiatry and Behavioral Neurosciences, 5th edition. Arlington, Virginia, USA: American Psychiatric Publishing; 2008. pp. 677-704.
- [6] Flynn Pharma Ltd (2012). Sleep disorders. [online] Available from www.sleepwelllivewell.co.uk/sleepdiosorders/insomnia. [Accessed December, 2012].
- [7] Sarrais F, de Castro MP.El insomnia. An Sist Sanit Navar. 2007; 30 Suppl 1:121-134.
- [8] Peraita Adrados R.Transient and short term insomnia. In: Billiard M, ed. Sleep, Physiology and Pathology.2003; New York: Kluwer Academic/Plenum Publishers.
- [9] Wilson SJ, Nutt DJ, Alford C, et al. British Association for Psychopharmacology consensus statement on evidence-based treatment of insomnia, parasomnias and circadian rhythm disorders. J Psychopharmacol. 2010; 24(11):1577-601.
- [10] Saddichha S. (2010). Diagnosis and treatment of chronic insomnia. Ann Indian Acad Neurol. 21, 13: 94-104