Open access Journal of
Neurology & Neurosurgery
ISSN: 2476-0501

Juniper Publishers
key to the Researchers

Opinion
Volume 15 Issue 5 - August 2021
DOI: 10.19080/OAJNN.2021.15.555924

Open Access J Neurol Neurosurg

Management of Insomnia in Adults: An Overview

Johanna Stefany Canenguez Benitez[1]*, Tabata Elizabeth Hernandez Henriquez[2], Sujan Poudel[3], Angel Javier Arriaga Madrid[4], Jose Luis Hernandez Aparicio[5], Angel Gustavo Barrera Ventura[6], Felipe Velasquez Botero[7], Angel Osmin Diaz Villegas[8], Digna Emerita Sanchez de Vasquez[9] and Ivonne Kris Yeleni Grande Ortiz[10]

[1]*University of El Salvador, Larkin Community Hospital*

[2]*University of El Salvador, Larkin Community Hospital, Miami, Florida, USA*

[3]*Division of Research and Academic Affairs, Larkin Community Hospital, Miami, Florida, USA*

[4]*Universidad Catolica de Honduras*

[5]*University of El Salvador*

[6]*Universidad de El Salvador, Larkin Community Hospital, Miami, Florida, USA*

[7]*Universidad CES*

[8]*University of El Salvador*

[9]*University of El Salvador*

[10]*University of El Salvador*

Submission: August 6, 2021; **Published:** August 16, 2021

***Corresponding author:** Johanna Stefany Canenguez Benitez, Tabata Elizabeth Hernandez Henriquez, University of El Salvador, Larkin Community Hospital, USA

Abstract

Insomnia disorder (ID) is a sleep-wake condition characterized by dissatisfaction or complaint with sleep quantity or quality, which can be caused by various causes, such as behavioral and organic comorbidities. ID incurs many problems for patients in their life. This disorder has a real impact on all aspects of the workforce. Healthcare workers can have a decrease in productivity and a decrease in the quality of patient care, which produces a high cost for the health care system in the service provided to patients and the cost that his management incurs. Our opinion article is a review in the current database about its management options, such as the uses of Drugs and Cognitive Behavioral Therapy (CBT). The use of medications has a potential side effect that outweighs the possible benefit. Even though many clinicians have an agreement in drug use only for short periods, the combination of medications and CBT plus changes in sleep hygiene and the prompt and correct management of comorbidities has a great benefit, as demonstrated by several control studies. The use of benzodiazepines was not recommended for an extended period due to the potential risk for tolerance and dependence.

Nevertheless, it is a good starting treatment option if used for less than four weeks. ID sometimes is a manifestation of a mood disorder. In this case, the use of antidepressants is a reasonable treatment option. The management of ID is complex and should be approached in an integrative way. The treatment's main cornerstones are the combination of medication and behavioral treatments, the careful use of benzodiazepines, and anticholinergic.

Keywords: Insomnia; Insomnia and antidepressants; Psychotherapy and Insomnia; Benzodiazepines and Insomnia

Abbreviations: ID: Insomnia Disorder; CBT: Cognitive Behavioral Therapy; BZDs; Benzodiazepines

Introduction

According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) and the International Classification of Sleep Disorders (ICSD), insomnia disorder (ID) is a sleep-wake condition characterized by the dissatisfaction or complaint with sleep quantity or quality, in conjunction with difficulty initiating sleep, maintaining sleep, or the presence of early-morning awakening with inability to return to sleep. The condition is acute if symptoms occur for less than three months and chronic if symptoms occur three or more times weekly for three months or longer [1]. It is a multifactorial disease that usually coexists with other disorders (medical, psychiatric, sleep, or neurological), and it is associated with precipitants or triggers, such as stress, medication, or poor sleep hygiene. Therefore, identification of these factors is considered the core of ID treatment. As a general rule, current clinical practice guidelines recommend using pharmacotherapy for short-term relief of insomnia,

while psychotherapy is considered the first line for long-term management [2]. The worldwide prevalence of insomnia has been estimated in multiple studies. It is considered that this condition is present in approximately 10 – 30% of the general population, with some studies suggesting a prevalence even higher than 50% as several population-based studies in different countries have consistently found that approximately one-third of adults reported dissatisfaction with their sleep and at least one symptom of insomnia [3,4]. According to the DSM-5, up to 40% of adults disclose insomnia symptoms at some point in a given year [1]. In the United States, the unadjusted prevalence of insomnia increased by 8% in ten years, rising from 37.5 million adults in 2002 to 46.2 million adults in 2012 (19.2%), according to the National Health Interview Survey data [5].

Insomnia Disorder can result in detrimental effects for the patient and the healthcare system itself. This complex sleep disorder has been directly linked with reduced quality of life, cognitive decline, mood disturbances, and substance abuse [6]. Regarding the US healthcare system, combined direct and indirect costs of insomnia exceed $100 billion annually [7]. Given the actual evidence of its consequences, a correct initial therapeutic approach to this condition may benefit both patients and the healthcare system. Despite increasing data on insomnia, research findings on effective treatments are more limited, and many clinical questions remain unanswered, so clinicians must often rely on clinical judgment. In this opinion article, our principal objective is to review the current literature to emphasize the characteristics of the actual main treatments for insomnia, such as antidepressant therapy, sedative medication, and psychotherapy. We have identified three main drugs to treat insomnia: benzodiazepines, nonbenzodiazepines, and mood stabilizers/antidepressants.

Nowadays, there are not enough studies that support the use of antidepressants to treat insomnia; there are mixed opinions regarding the use of these drugs for its management. Even though many prescribing physicians use antidepressants, they also recognize the advantages of these agents compared with other drugs that act on the benzodiazepine receptors or other drugs used to treat insomnia. When there is coexistent depressive symptomatology or a history of depression-related insomnia, prescribing antidepressants for short-term treatment of insomnia can be helpful too if, in all other cases, benzodiazepine receptor agonists, especially the nonbenzodiazepines among them, should be the drugs of choice. Antidepressants are among the pharmacological options and other groups of psychotropics for long-term treatment [8].

In the cases where antidepressants are used to treat insomnia, sedatives should be preferred over stimulating agents such as serotonin reuptake inhibitors. In general, drugs lacking intense cholinergic activity should be preferred. Drugs that block serotonin 5-HT2A or 5-HT2C receptors should be preferred over those whose inhibitory property is caused by histamine receptor blockade only. The starting dose should be the lowest dose possible if not contraindicated (e.g., initial dose: doxepin 25 mg, mirtazapine 15 mg, trazodone 50 mg, trimipramine 25 mg) [9]. The lack of factual data allowing for evidence-based recommendations is necessary for well-designed, long-term, comparative studies to define further the role of antidepressants versus other agents in the management of insomnia [10]. Cognitive-behavioral therapy for insomnia (CBT-I) has proven to be the most effective method as the first line of management in patients with chronic insomnia. This recommendation established by the American Academy of Sleep Medicine (AASM) was demonstrated based on evidence from 49 multiple, recent, and randomized controlled trials that CBT-I alone or in combination with drugs was more effective than drugs alone. In addition, the patients had a clinical improvement of 50-75% related to the time to fall asleep, wake after sleep onset, sleep efficiency, and quality [11]. Despite this, CBT-I has not been widely used by all patients since not all centers have trained personnel, is time-consuming, and at least four biweekly individual treatments are needed to be effective [2].

It has happened to us that we cannot get to sleep because we are thinking about worries or negative thoughts. Here is where CBT-I helps recognize and change those beliefs that affect our ability to sleep [12]. CBT-I is a combination of approaches applied to achieve adequate sleep. First, they are performed face to face with the patient, either individually or in groups [12]. Those approaches include relaxation exercises, sleep hygiene, avoiding caffeine or light-emitting devices before sleep, and sticking to a bedtime schedule. Sleep restriction is another approach that reduces the time in bed to only hours needed to sleep. The last approach is stimulus control. Examples include; attempt to sleep when feeling tired and use the bed only for sleep or sex [11]. It is essential to talk about sleep expectations with patients who do not respond to insomnia treatment, especially older and have comorbidities. CBT-I, unlike medications, focuses on the root causes of insomnia rather than just treating the symptoms. However, it does take time and effort to get it to function. The most effective treatment for chronic insomnia in adults is cognitive-behavioral therapy [12].

Of patients that reported insomnia for a decade taking prescription medications for sleep for a mean of 4.5 years, only 20% believed that medication was the best solution for their condition [13,14]. The most common drugs used to treat insomnia are benzodiazepines (BZDs) (zolpidem, zopiclone, and zaleplon) are FDA-approved for insomnia disorders with a solid evidence base. However, it is essential to remark that they have many side effects, including cognitive impairment, tolerance, rebound insomnia upon discontinuation, car accidents/falls, abuse, and dependence liability [15]. A meta-analysis showed that BZDs are effective in the short-term treatment (≤4 weeks) of insomnia. Data from a randomized controlled trial with BZDs according to treatment response/remission definitions and observed positive treatment responses in 76.7% of cases and remissions in 47.7%

How to cite this article: Johanna S C B, Tabata E H H, Angel J A M, Jose L H A, Angel G B V, et al. Management of Insomnia in Adults: An Overview. Open Access J Neurol Neurosurg 2021; 15(5): 555924. DOI: 10.19080/OAJNN.2021.15.555924

of participants [16]. Health care providers have consistently expressed concerns regarding safety and dependency as crucial issues when using BZDs to treat insomnia. Many favor an initial approach of treating associated comorbidities and advising good sleep hygiene [16].

Conclusion

Insomnia is present in approximately twenty in one hundred people who reported sleep problems worldwide. Insomnia can present as daytime fatigue, anxiety, depression, impaired concentration, decreased capacity to function daily, and reduced quality of life. It is associated with an increased incidence of mental health dysfunctions, drug and alcohol abuse, and increased demand for healthcare use. Adequate management of insomnia depends on the duration and nature of the sleep problem. It may involve treating other medical comorbidities; it is crucial to provide advice on sleep hygiene and lifestyle modifications. Some drugs such as; benzodiazepines, antidepressants, and psychological therapies such as cognitive behavioral therapy are the cornerstone of treatment. Unfortunately, many patients presented some degree of tolerance or dependence on the drugs involved in the medical treatment of insomnia. This situation makes its management even more complex and sometimes challenging to achieve; for this reason, it is crucial to assess and confirm the presence of insomnia in every doctor's visit and consider the effectiveness and common adverse effects of the variety of drugs available. Furthermore, successful behavioral and pharmacologic approaches to insomnia can only be devised once all contributing factors are recognized and addressed. Overall, there is not enough evidence that supports the use of some drugs such as antidepressants to have higher effectiveness in the management of insomnia than placebo; a reason why more evidence and high-quality trials of antidepressants for insomnia are needed.

References

1. Dopheide JA (2020) Insomnia overview: Epidemiology, Pathophysiology, diagnosis and monitoring, AND Nonpharmacologic Therapy. Am J Manag Care 26(4 Suppl): S76-S84.
2. Rios P, Cardoso R, Morra D, Nincic V, Goodarzi Z, et al. (2019) Comparative effectiveness and safety of pharmacological and non-pharmacological interventions for insomnia: An overview of reviews. Systematic Reviews 281.
3. Bhaskar S, Hemavathy D, Prasad S (2016) Prevalence of chronic insomnia in adult patients and its correlation with medical comorbidities. J Family Med Prim Care 5(4): 780-784.
4. Morin CM, Savard J, Mérette C, Ivers H, Bélanger L, et al. (2011) Prevalence of insomnia and its treatment in Canada. Can J Psychiatry 56(9): 540-548.
5. Ford ES, Cunningham TJ, Giles WH, Croft JB (2015) Trends in insomnia and excessive daytime sleepiness among US adults from 2002 to 2012. Sleep Med 16(3): 372-378.
6. Colten HR, Altevogt BM (2016) Sleep disorders and sleep deprivation: An unmet public health problem. National Center for Biotechnology Information.
7. Wickwire EM, Shaya FT, Scharf SM (2016) Health economics of insomnia Treatments: The return on investment for a good night's sleep [Internet]. Sleep med rev 30: 72-82.
8. (2017) Treating insomnia with medications. Stanford Health Care (SHC) - Stanford Medical Center.
9. Everitt H, Baldwin DS, Stuart B, Lipinska G, Mayers A, et al. (2018) Antidepressants for insomnia in adults. Cochrane Database Syst Rev 5(5): CD010753.
10. Cañellas F (2004) Use of antidepressants in the treatment of insomnia. Vigilia-Sueño 16(S1): 43-47.
11. Edinger JD, Arnedt JT, Bertisch SM, Colleen EC, John JH, et al. (2021) Behavioral and psychological treatments for chronic insomnia disorder in adults: an American Academy of Sleep Medicine clinical practice guideline. J Clin Sleep Med 17(2): 255-262.
12. Winkelman JW (2021) Overview of the treatment of insomnia in adults.
13. Lu XM, Zhu JP, Zhou XM (2016) The effect of benzodiazepines on insomnia in patients with chronic obstructive pulmonary disease: A meta-analysis of treatment efficacy and safety. Int J Chron Obstruct Pulmon Dis 11: 675-685.
14. Krakow B, Ulibarri VA, Romero EA (2010) Patients with treatment-resistant insomnia taking nightly prescription medications for sleep: A retrospective assessment of diagnostic and treatment variables. Prim Care Companion J Clin Psychiatry 12(4): PCC.09m00873.
15. Atkin T, Comai S, Gobbi G (2018) Drugs for insomnia beyond benzodiazepines: Pharmacology, clinical applications, and discovery. Pharmacological Reviews 70(2): 197-245.
16. Riemann D, Baglioni C, Bassetti C, Bjorvatn B, Groselj LD, et al. (2017) European guideline for the diagnosis and treatment of insomnia. Journal of Sleep Research 26(6): 675-700.

How to cite this article: Johanna S C B, Tabata E H H, Angel J A M, Jose L H A, Angel G B V, et al. Management of Insomnia in Adults: An Overview. Open Access J Neurol Neurosurg 2021; 15(5): 555924. DOI: 10.19080/OAJNN.2021.15.555924

DOI: 10.19080/OAJNN.2021.15.555924

How to cite this article: Johanna S C B, Tabata E H H, Angel J A M, Jose L H A, Angel G B V, et al. Management of Insomnia in Adults: An Overview. Open Access J Neurol Neurosurg 2021; 15(5): 555924. DOI: 10.19080/OAJNN.2021.15.555924