

### COMMENTARY 0 Open Access

# **Medications and Therapies for Narcolepsy Management**

#### Nisam Muktafa\*

Department of Pharmacology, University of Antioquia, Antioquia, Colombia

#### **ARTICLE HISTORY**

Received: 26-Sep-2023, Manuscript No. AJPBP-23-121152; Editor assigned: 29-Sep-2023, PreQC No. AJPBP-23-121152 (PQ); Reviewed: 13-Oct-2023, QC No. AJPBP-23-121152;

Revised: 20-Oct-2023, Manuscript No. AJPBP-23-121152 (R);

Published: 27-Oct-2023

# **Description**

Narcolepsy is a neurological disorder that affects the brain's ability to control sleep-wake cycles. It is characterized by excessive daytime sleepiness, sudden and uncontrollable episodes of falling asleep, and disruptions in the sleep cycle. Though narcolepsy is a relatively rare condition, its impact on the lives of those affected can be profound. This article, discusses about the causes, symptoms, diagnosis, and management of narcolepsy to shed light on this often misunderstood disorder.

## Causes and types of narcolepsy

The exact cause of narcolepsy remains elusive, but researchers believe it involves a combination of genetic and environmental factors. Most cases of narcolepsy are sporadic, occurring without a family history, but there is a genetic component that increases the risk. Certain genes related to the regulation of sleep-wake cycles and the immune systems have been implicated in narcolepsy [1].

There are two primary types of narcolepsy

**Type 1:** Type 1 narcolepsy is characterized by the presence of cataplexy, a sudden loss of muscle tone triggered by strong emotions such as laughter, anger, or surprise.

**Type 2:** Type 2 narcolepsy lacks cataplexy but involves excessive daytime sleepiness and other symptoms like sleep paralysis, hallucinations, and disrupted nighttime sleep.

# Symptoms of narcolepsy

**Excessive Daytime Sleepiness (EDS):** Individuals with narcolepsy often experience an overwhelming and persistent desire to sleep during the day, regardless of how much sleep they get at night. This

can interfere with daily activities and lead to impaired concentration and memory [2].

**Cataplexy:** This sudden loss of muscle control, typically triggered by strong emotions, can manifest as slurred speech, weakness in the limbs, or even complete collapse. Cataplexy is a hallmark symptom of type 1 narcolepsy.

**Sleep paralysis:** People with narcolepsy may experience temporary paralysis when falling asleep or waking up. This can be a frightening experience, as individuals are conscious but unable to move.

**Hallucinations:** Vivid and often disturbing dreamlike experiences can occur during the transition between wakefulness and sleep. These hallucinations can be visual, auditory, or tactile.

**Disrupted night-time sleep:** Individuals with narcolepsy may also experience fragmented and disturbed nighttime sleep, with frequent awakenings and difficulties staying asleep [3].

### Diagnosis of narcolepsy

Diagnosing narcolepsy can be challenging, as its symptoms can overlap with other sleep disorders. A comprehensive evaluation by a sleep specialist is crucial. The diagnosis typically involves a detailed medical history, a physical examination, and specialized sleep studies, such as polysomnography and Multiple Sleep Latency Tests (MSLT). The MSLT measures the time it takes for an individual to fall asleep during the day, helping to identify excessive daytime sleepiness [4,5].

### Management and treatment

While there is no cure for narcolepsy, various treatment options aim to manage symptoms and improve the quality of life for affected individuals [6,7].

**Medications:** Stimulants, such as modafinil and armodafinil, are commonly prescribed to address excessive daytime sleepiness. Sodium oxybate, a medication that can help improve nighttime sleep and reduce cataplexy, may also be recommended.

**Scheduled naps:** Short, scheduled naps during the day can help manage excessive daytime sleepiness and improve alertness [8,9].

**Lifestyle modifications:** Establishing a regular sleep schedule, maintaining good sleep hygiene, and avoiding factors that can worsen symptoms, such as alcohol and nicotine, can contribute to better symptom management.

**Supportive therapies:** Counseling and support groups can be beneficial for individuals with narcolepsy, helping them cope with the emotional and social challenges that may arise due to their condition [10].

Narcolepsy is a complex and often misunderstood disorder that significantly impacts the lives of those affected. While living with narcolepsy can present challenges, proper diagnosis and management strategies can significantly improve the quality of life for individuals with this condition. Increased awareness, ongoing research, and support for affected individuals are essential in fostering a better understanding of narcolepsy within the medical community and society at large.

#### References

[1] Baker TL, Foutz AS, McNerney V, Mitler MM, Dement WC. Canine model of narcolepsy: Genetic and developmental determinants. Exp Neurol 1982;75(3):729-742.

- [2] Liblau RS, Vassalli A, Seifinejad A, Tafti M. Hypocretin (orexin) biology and the pathophysiology of narcolepsy with cataplexy. Lancet Neurol 2015;14(3):318-328.
- [3] Kumar S, Sagili H. Etiopathogenesis and neurobiology of narcolepsy: A review. J Clin Diagn Res 2014;8(2):190.
- [4] Miyagawa T, Kawamura H, Obuchi M, Ikesaki A, Ozaki A, Tokunaga K, et al. Effects of oral L-carnitine administration in narcolepsy patients: A randomized, double-blind, cross-over and place-bo-controlled trial. PLoS One 2013;8(1):e53707.
- [5] Miyagawa T, Miyadera H, Tanaka S, Kawashima M, Shimada M, Honda Y, et al. Abnormally low serum acylcarnitine levels in narcolepsy patients. Sleep 2011;34(3):349-353.
- [6] Jacobson LH, Hoyer D, de Lecea L. Hypocretins (orexins): The ultimate translational neuropeptides. J Intern Med 2022;291(5):533-556.
- [7] Trotti LM, Saini P, Freeman AA, Bliwise DL, García PS, Jenkins A, et al. Improvement in daytime sleepiness with clarithromycin in patients with GABA-related hypersomnia: Clinical experience. J Psychopharmacol 2014;28(7):697-702.
- [8] Kelty E, Martyn V, O'Neil G, Hulse G. Use of subcutaneous flumazenil preparations for the treatment of idiopathic hypersomnia: A case report. J Psychopharmacol 2014;28(7):703-706.
- [9] Rye DB, Bliwise DL, Parker K, Trotti LM, Saini P, Fairley J, et al. Modulation of vigilance in the primary hypersomnias by endogenous enhancement of GABAA receptors. Sci Transl Med 2012;4(161):161ra151.
- [10] Mignot EJ. A practical guide to the therapy of narcolepsy and hypersomnia syndromes. Neurotherapeutics 2012;9:739-752.