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Short Communication

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Short Communication on Narcolepsy

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Abstract

Narcolepsy is a sleep disorder and a neurological disorder. The condition stems from changes in your brain that affect your sleep-wake cycles. The actual number of people who it affects may be higher. This is because the symptoms can be like other sleep disorders, such as obstructive sleep apnea. At first, narcolepsy often causes issues with sleeping at night, along with problems staying awake during the day. You may also develop other symptoms, such as sudden muscle paralysis. Symptoms like this can make it difficult to accomplish daily tasks. Like other neurological conditions, the brain's role in narcolepsy is complex. Researchers are still learning more about it. But it is important to gain knowledge about how narcolepsy affects your brain so you can better understand the condition.

Keywords:
Obstructive sleep apnea, Muscle paralysis.

Effects on the hypothalamus

Narcolepsy develops because of changes in the hypothalamus region of your brain. This small gland is located above your brain stem The hypothalamus helps regulate the release of hormones that affect numerous parts of your body. For example, it is responsible for releasing hypocretins, which help regulate sleep.

Aside from regulating your sleep cycles, the hypothalamus also plays a role in the following processes:

- Appetite
- Blood pressure
- Body temperature
- Electrolyte balances
- Emotions
- Heart rate

A rare form of narcolepsy can develop as a result of damage to the hypothalamus from a brain injury. This is known as secondary narcolepsy. Secondary narcolepsy is a severe neurological condition that can lead to irregular sleep cycles as well as memory loss and mood disorders.

Effects on brain chemicals

Hypocretin neurons help regulate your sleep-wake cycles. These chemicals in your brain are at their highest levels when you're awake. They naturally decrease during your normal bedtime. But when you have narcolepsy, hypocretin releases are low. This causes disruptions during the daytime, such as excessive sleepiness and fatigue. You may also tend to take more naps during the day.

Reduced hypocretins are strongly linked to narcolepsy type 1. This type of narcolepsy includes:

•Disrupted sleep cycles

•Daytime fatigue

•Cataplexy (sudden loss of muscle control)

Hypocretin losses can also affect other brain hormones, such as serotonin. This can cause sleep paralysis and hallucinations when you wake up.If you have type 2 narcolepsy, you may experience issues with sleep cycle regulation but don't have issues with cataplexy.

The cause of type 2 narcolepsy is unclear. Some research points to fewer hypocretin injuries.

Other symptoms

Aside from disrupted sleep cycles and excessive daytime sleepiness, narcolepsy type 1 can cause cataplexy. Like the muscle paralysis experienced during a REM cycle, cataplexy causes sudden loss of muscle coordination while you're awake. Such events can come on suddenly, usually after experiencing a strong emotional reaction. Other possible symptoms associated with narcolepsy include:

- Hallucinations
- Paralysis upon waking up in the morning
- Insomnia
- Sleep apnea
- Depression
- Concentration difficulties
- Memory problems

While not widely considered a progressive disease, one study suggests progression in people with early onset narcolepsy compared to those who develop the condition later in adulthood.Progression could ultimately mean worsening symptoms over time.

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