NARCOLEPSY

Narcolepsy is a long-term neurological disorder that involves a decreased ability to regulate sleep-wake cycles.

⚠️ Risk factor ♂ Male & Female

About Narcolepsy

Narcolepsy is a neurological disorder characterized by excessive daytime sleepiness, cataplexy (a sudden and transient episode of muscle weakness accompanied by full conscious awareness), hypnagogic hallucinations (visual, tactile, auditory, or other sensory events), sleep paralysis, and disturbed nocturnal sleep patterns.

Narcolepsy usually has an onset at an early age (childhood, adolescence or young adulthood), but is often missed till late, the mean delay to diagnosis is up to 15 years, with rare individual cases being delayed even for 60 years, though with education, there might now be a shorter delay to diagnosis.

The exact cause of narcolepsy is unknown, and it may be caused by several distinct factors. Part of mechanism involves the loss of hypothalamic hypocretin (a neuropeptide that regulates arousal, wakefulness, and appetite) -producing neurons in the hypothalamus. Narcolepsy with hypocretin deficiency is a common sleep disorder that affects approximately 0.02% of the population worldwide and causes disability in 24% of the affected subjects.

In up to 10% of cases there is a family history of the disorder. There is a strong link with certain genetic variants. In addition to genetic factors, low levels of orexin peptides have been correlated with a past history of infection, diet, contact with toxins such as pesticides, and brain injuries due to brain tumors or strokes. Another possible causes of narcolepsy are evolutionary and post vaccine narcolepsy.

People with narcolepsy can be substantially helped, but not cured. Treatment is tailored to the individual, based on symptoms and therapeutic response. The time required to achieve optimal control of symptoms is highly variable and may take several months or longer. Medication adjustments are frequently necessary, and complete control of symptoms is seldom possible. While oral medications are the mainstay of formal narcolepsy treatment, lifestyle changes are also important.

The main treatment of excessive daytime sleepiness in narcolepsy is central nervous system stimulants such as methylphenidate, amphetamine, dextroamphetamine, modafinil, and armodafinil.

In many cases, planned regular short naps can reduce the need for pharmacological treatment, but only improve symptoms for a short duration. A 120-minute nap provided benefit for 3 hours in patient alertness whereas a 15-minute nap provided no benefit. Daytime naps are not a replacement for nighttime sleep. Ongoing communication between the health care provider, patient, and the patient's family members is important for optimal management of narcolepsy.

Narcolepsy has sometimes been treated with selective serotonin reuptake inhibitors and tricyclic antidepressants, such as clomipramine, imipramine, or protriptyline, as well as other drugs that suppress REM (a unique phase of mammalian sleep characterized by random movement of the eyes, low muscle tone throughout the body, and the propensity of the sleeper to dream vividly) sleep. Venlafaxine, an antidepressant which blocks the reuptake of serotonin and norepinephrine, has shown usefulness in managing symptoms of cataplexy, however, it has notable side-effects including sleep disruption.

Symptoms
The classic symptoms of the disorder, often referred to as the "tetrad of narcolepsy," are cataplexy, sleep paralysis, hypnagogic hallucinations, and excessive daytime sleepiness. Other symptoms may include automatic behaviors and night-time wakefulness. These symptoms may not occur in all patients.

- Cataplexy is an episodic loss of muscle function, ranging from slight weakness such as limpness at the neck or knees, sagging facial muscles, weakness at the knees often referred to as "knee buckling," or inability to speak clearly, to a complete body collapse. Episodes may be triggered by sudden emotional reactions such as laughter, anger, surprise, or fear, and may last from a few seconds to several minutes. The person remains conscious throughout the episode. Usually speech is slurred and vision is impaired (double vision, inability to focus), but hearing and awareness remain normal. Cataplexy also has a severe emotional impact on narcoleptics, as it can cause extreme anxiety, fear, and avoidance of people or situations that might elicit an attack.

- Periods of wakefulness at night.

- Sleep paralysis is the temporary inability to talk or move when waking (or less often, when falling asleep). It may last a few seconds to minutes. This is often frightening but is not dangerous.

- Hypnagogic hallucinations are vivid, often frightening, dreamlike experiences that occur while dozing or falling asleep. Hypnopompic hallucinations refer to the same sensations while awakening from sleep. These hallucinations may manifest in the form of visual or auditory sensations.

- Automatic behaviors occur when a person continues to function (talking, putting things away, etc.) during sleep episodes but awakens with no memory of performing such activities. It is estimated that up to 40 percent of people with narcolepsy experience automatic behavior during sleep episodes.

**Associated diseases**

- Parkinson’s disease
- psychosis
- schizophrenia accompanied by convulsion

**Complications**

Cataplexy can cause injuries due to fall. Also daytime sleepiness is dangerous if the patient fall asleep while driving or operating heavy machinery.

In some cases, cataplexy may resemble epileptic seizures.

As a consequence of sleepiness, patients may report inattention, poor memory, blurry vision, diplopia, and automatic behaviors such as driving without awareness.

**Risk factors**

There is the link between vaccine against H1N1 flu in children younger than 19 years and narcolepsy.

**Prevention**

The prevention is to not take the vaccine against H1N1 flu called Pandermix if you are younger than 19 years. Other causes cannot be prevented.

**How it can affect fertility**

The morbidity of sleepiness and the mother’s risk of suffering an accident as a result of sleepiness should be weighed against the foetus’ possible risk of problems as a result of exposure to intrauterine stimulants. In practice, the advice (Pic. 1) given to women with narcolepsy and idiopathic hypersomnolence (excessive daytime sleepiness or prolonged nighttime sleep with unknown origin) is to discontinue stimulant therapy during pregnancy because of fear of potential teratogenicity. Some patients chose to remain on stimulant therapy during their pregnancy because of intolerable sleepiness. There is a lack of documentation on how women cope with their symptoms during pregnancy, and in practice, doctors find it quite difficult to advise these patients.
Many cases are never diagnosed. Misdiagnosis or absence of diagnosis is a key problem. Early diagnosis of narcolepsy has the possibility to offer affected persons an adequate medication to lead an almost normal life.

Many disorders manifest with symptoms that overlap with narcolepsy and patients are labeled bipolar, schizophrenic, depressed and anxious. These detrimental effects impact on proper health-care being used, employment, and quality of life. Education and awareness of narcolepsy and its symptoms might assist.

Moreover, particularly in the young, the symptoms can be disabling enough to interfere with functioning of the child, and therefore compromise his/her education. That in turn leads to further stigmata and impairments.

Find more about related issues

Diagnoses

Uterine fibroids
The most common benign smooth muscle tumors of the uterus encountered in women of reproductive age.
Learn more at: www.fertilitypedia.org/therapy/diag/uterine-fibroids

Gallery

Pic
Instructions for pregnant narcoleptic women.

Sources

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