The Dementia Society
Ottawa and Renfrew County

Frontotemporal Dementia

Dementia includes a wide range of symptoms that affect memory, thinking, behaviour and the ability to perform everyday activities.

Frontotemporal Dementia is a type of dementia. Frontotemporal Dementia is itself divided in three subtypes that affect the frontal and temporal lobes of the brain. Frontotemporal Dementia tends to occur at a younger age than other types of dementia.

The brain is a person's "headquarters". Frontotemporal Dementia is a disease that damages the brain. This brain damage leads to symptoms which fall into the general category we describe as "dementia". Dementia is progressive which means symptoms will gradually worsen. New symptoms appear as the disease spreads in the brain and damages new regions.

Symptoms

The main functions affected by Frontotemporal Dementia are language skills, the ability to focus and the ability to control impulses. The home of our personality is located in the frontal lobes of our brains. The frontal lobes control our behaviour, mood, attention, judgment, impulses, and emotions as well as problem solving and planning skills. The temporal lobes are primarily involved in auditory perception and the understanding of auditory and visual stimuli.

Frontotemporal Dementia is classified into three clinical variants or subtypes. The first variant is called the Behavioural Variant of Frontotemporal Dementia. It initially affects behavioural and executive functions such as thinking, planning, organizing and problem solving. The second variant is called Progressive Non-Fluent Aphasia. This variant is mainly characterized by a progressive deficit in speech and grammar and a loss of comprehension of complex sentences. The last variant is called Semantic Dementia. This variant is a progressive loss of semantic knowledge (word meaning, naming ability and word comprehension).

As Frontotemporal Dementia progresses, the symptoms of the different variants converge because the brain damage extends to a larger portion of the frontal and temporal lobes.

It is important to remember that a person with Frontotemporal Dementia may not be aware of their change in behaviour. They are not behaving to hurt and embarrass their loved ones on purpose.

Causes

The key brain changes leading to the symptoms of Frontotemporal Dementia are deposits in brain cells. These deposits trigger a progressive loss of connections between brain cells causing the symptoms. It is not yet clear why these deposits appear or how they lead to dementia.

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Diagnostic

Frontotemporal Dementia is much less common than other types of dementia, but it is more common in younger people. Such an early appearance can be surprising and lead to a difficulty in diagnosis. Also, the diagnosis of Frontotemporal Dementia can be challenging since the behavioural changes in a person with Frontotemporal Dementia are similar to those seen in a person with certain psychiatric disorders.

The diagnosis of Frontotemporal Dementia requires careful evaluation to rule out other possible causes. It is important to correctly diagnose the type of dementia because some medications may be beneficial for one type but have adverse reactions for another. A correct diagnosis allows for access to treatment and planning for the future.

No single test can detect Frontotemporal Dementia. Rather, experts use a combination of tests to rule out other possibilities. Generally, the assessment starts with the family physician followed by referral to a specialist.

Tests of mental abilities and brain scans play an important role in making a diagnosis. Tests of mental abilities are a way of clinically observing symptoms and their seriousness. Brain scans can show damage in specific areas of the brain.

Heredity

Compared to other types of Dementia, a higher proportion of Frontotemporal Dementia is hereditary. Even then, only 10% of cases involve a different version of a gene causing the disease. A gene is something that can be transferred from a parent to offspring. While a few cases of Frontotemporal Dementia are hereditary, the majority of cases are sporadic. A combination of risk factors, rather than a familial link creates a predisposition in these cases.

We can act on some risk factors such as smoking, obesity and lack of physical activity. For this reason, the scientific and medical communities have put an emphasis in recent years on identifying risk factors and building prevention strategies.

Things to remember:

- The exact symptoms experienced by a person can be different from one individual to another.
- Establishing the correct diagnosis can take time, but this allows for access to treatment and future planning.
- A person with Frontotemporal Dementia may not be aware of their change in behaviour.
- Research and clinical trials are underway to identify new treatments for Frontotemporal Dementia. Until then, we know we can improve quality of life by addressing modifiable risk factors.
- Contact the Dementia Society. No One Should Face Dementia Alone™

References

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