



Dementia with Lewy bodies

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

Dementia with Lewy bodies is a type of dementia. Dementia with Lewy bodies usually presents symptoms that are also common in Parkinson's Disease or Alzheimer's Disease. This may lead to misdiagnosis and, unfortunately, to less than ideal management.

The brain is a person's "headquarters". Dementia with Lewy bodies 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.

The terminology regarding Lewy bodies can be confusing. There are mainly two types of dementia that qualify as Lewy Body Dementia, because they both involve the development of protein aggregates called Lewy bodies. One type is Parkinson's Disease Dementia. Lewy bodies contribute to causing Parkinson's disease and also to the dementia that can occur as a result. The other type is called 'Dementia with Lewy bodies' because it is a dementia that is created by those same Lewy bodies. Dementia with Lewy bodies is a disease that affects mental abilities before the development of any movement symptoms unlike with Parkinson's Disease Dementia.

Symptoms

Some symptoms seem particular to the early stage of Dementia with Lewy bodies. Among these is a variation in a person's alertness and attention. Other symptoms include: hallucinations, delusions, problems with

movement and sleep disturbances such as sleep behaviour disorder.

A hallucination is the apparent perception of something that is not present. A delusion is when a person believes in something that is not true. A person could believe that a stranger is living in their house, that their spouse is cheating on them, or that an imposter has replaced their spouse. Often a person can associate delusions with hallucinations, making them feel more real.

The physical symptoms associated with Dementia with Lewy bodies are rigid and slow movements, a blank expression, tremors, a forward tilt posture and a short shuffling gait. All of these make the person more prone to falls.

A person with Dementia with Lewy bodies is more prone to sleep disturbances which may start years before the diagnosis. They can also have violent movement associated with sleep behaviour disorder. This can be physically harmful for bed partners. Sleep behaviour disorder is a state where a person seems to act out their dream by punching, kicking, or even screaming.

Causes

The deposits called Lewy bodies are the key brain change in Dementia with Lewy bodies that contributes to damaging the brain. Lewy bodies 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.



Diagnostic

For many years, Dementia with Lewy bodies was confused with Parkinson's Disease. It is now understood that some people with Parkinson's Disease can develop dementia, referred to as Parkinson's Disease Dementia. Other people have Dementia with Lewy bodies where the dementia precedes the development of movement symptoms.

The diagnosis of Dementia with Lewy bodies 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 to one type but have adverse reactions for another. A correct diagnosis allows for access to treatment and future planning.

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

Very few cases of Dementia with Lewy bodies are hereditary. In the vast majority of cases a combination of risk factors, rather than a familial link, increases the predisposition of a person to develop Dementia with Lewy bodies.

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 for every individual.
- Dementia with Lewy bodies is often misdiagnosed as either Alzheimer's Disease or Parkinson's Disease.
- A person with Dementia with Lewy bodies is more prone to sleep disturbances which may start years before the diagnosis.
- Establishing the correct diagnosis can take time, but this allows access to treatment and planning for the future.
- Research and clinical trials are underway to identify new treatments for Dementia with Lewy bodies. 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

Walker, Z., et al. (2015). *The Lancet*, 386(10004), 1683-1697