

LEWY BODY DEMENTIA

Lewy Body Dementia (LBD) is a degenerative disorder of the brain that leads to loss of memory and difficulty concentrating. After Alzheimer's disease (AD), it is the second most common form of dementia. LBD is an umbrella term for two related clinical diagnoses, Parkinson's disease (PD) dementia and dementia with Lewy bodies.

In the early stages of the disease, there is often just a problem with attention, such as sustaining a train of thought. Memory loss does not necessarily occur in the early stages, but usually appears as the disease progresses. People with LBD are often anxious, and may be depressed, and these symptoms may be the first indications of LBD for some.

Other symptoms of Lewy Body Dementia include:

- impaired thinking, such as loss of memory, executive function (processing information, planning) and ability to understand visual information and memory
- fluctuations in cognition, attention, or alertness
- hallucinations, especially well-formed visual hallucinations
- symptoms of PD, such as tremor, stiffness, and slowness of movement

Most people have never heard of LBD. It was only in the 1980s that LBD was first described. Pathologists looking at post-mortem brains of some people with dementia noticed that some of the brains did not have the classic features of AD, which are plaques and tangles. These patients were found to have different features of dementia according to their clinical records, which researchers and pathologists found to be Lewy bodies.

Lewy Bodies

Lewy bodies are named after Dr. Friedrich Heinrich Lewy, who first described these structures discovered in the brains of patients who died with PD. In PD patients, these structures are found in cells of the brain stem, which is responsible for mental function. These cortical Lewy bodies are the essential pathological feature of Lewy Body Dementia.

Causes

The cause of LBD is unknown. Genetic factors may play a role in some cases, but there is no clear pattern of inheritance. There is evidence that suggests that LBD is caused by the same mechanisms that cause PD. Unfortunately, we still do not know the cause of most cases of PD, nor do we know why some people develop PD, and others, LBD.

Diagnosis

The only way to confirm an LBD diagnosis is to examine the brain after death. Throughout life, the diagnosis of LBD is made based on the patient's symptoms. There are no blood tests or brain scans that can provide a certain diagnosis of LBD. Doctors will often order some blood tests or brain scans to exclude other illnesses that may cause similar symptoms. The following criteria are used to make a clinical diagnosis of LBD:

- Dementia developed during the course of the disease
 - specific difficulties with inattention, visuospatial skills, and lack of initiative

- presence of at least **two** of the following symptoms:
 - fluctuations in memory, or cognitive disorder
 - visual hallucinations
 - Parkinson-like symptoms
- presence of additional symptoms
 - difficulty with balance
 - transient loss of consciousness
 - inability to tolerate neuroleptic medications

Lewy Body Dementia and Alzheimer's

Although dementia is present in both LBD and AD, the features of dementia differ between the two. It is unusual to have visual hallucinations in AD, and fluctuations in intellectual functioning are more prominent with LBD. Visuospatial skills and attention are more affected in LBD, whereas language function is more affected in AD. Patients have problems with memory in both LBD and AD, but they are different. In AD, the patients have difficulty consolidating memory (forming new memories), while in LBD, patients have difficulty retrieving memory (accessing previously memorized information).

Lewy Body Dementia and Parkinson's

Dementia occurs in about 30% of people with Parkinson's, usually late in the disease. Memory problems in PD are often quite mild. Since some patients with PD have dementia, and some people with LBD have Parkinson-like symptoms, there is considerable overlap between the symptoms of the two diseases.

Treatment

Unfortunately, there is no cure for LBD at this time. There are, however, some medications that can help ease the symptoms of the disease. Patients with Parkinson-like symptoms may be helped by some of the medications used to treat PD, and certain medications normally prescribed for AD.

Additional Resources

Lewy Body Dementia Association | www.lbda.org

Parkinson's and Dementia | Parkinson Society BC | bit.ly/pddementia

Dementia and Communication Challenges | Parkinson Society BC | bit.ly/pddcommunicationchallenges

Dementia and Reactive Behaviours | Parkinson Society BC | bit.ly/pddreactivebehaviour