

Lewy Body Dementia

Nearly everyone is familiar with Alzheimer's disease (AD), the leading cause of dementia in the elderly. Vascular dementia is also widely recognized because it *was* considered the second most common dementia subtype until recently.

We now recognize vascular dementia as the third most common cause of dementia, while Lewy Body Dementia is now considered to be the second most common. But who has ever *heard* of Lewy Body Dementia (LBD)?

According to autopsy studies, LBD accounts for up to 20-35 percent of dementia cases.¹ Unfortunately, LBD is unrecognized by most general practitioners (GP), and patients often find themselves with a diagnosis of AD or Parkinson's disease (PD) instead. It is critical for the GP to recognize the symptoms of LBD, as the GP will often be the first medical professional providing treatment, and there are some crucial differences in medication management.

An LBD patient usually presents with symptoms of Parkinsonism or hallucinations, short-term memory loss, an unpredictable personality and cognitive swings. More recently, sleep disturbances have been added to the list of diagnostic criteria. While in REM sleep a patient may "act out" their dream; upon awakening the patient can be very confused.² The patient may be experiencing an odd set of symptoms and find it difficult to articulate what changes are being experienced.

The research conducted to date can help to separate out LBD symptoms from other forms of dementia. Dementia plus two of the following three symptoms indicates a probable diagnosis of LBD:

- ❖ Extrapyrimal (Parkinsonian) signs such as bradykinesia, rigidity and postural instability, but not always a tremor, e.g. a patient may be unable to sit up straight before involuntarily leaning to one side.
- ❖ Fluctuating cognitive ability. Sometimes there will be daily shifts in lucidity or mood.
- ❖ Visual and other sensory hallucinations. For example, a patient may repeatedly experience a single, identical, odor that can't be explained.

Other features include falling, loss of balance; a patient may announce, "I'm going upstairs now," when living in a one-story home. A patient may also fall suddenly, without warning. Falling spells, transient loss of consciousness, and delusions are also common.

The disease is not necessarily genetic, although having a family member with LBD may slightly increase a person's risk. Also, LBD strikes more men than women between the ages of 50-80.³

¹ Ferman, PhD., Tanis. "Dementia With Lewy Bodies: A Review Of Clinical Diagnosis, Neuropathology And Management Options" *Jacksonville Medicine*. 2.2002. Accessed on the Internet at <http://www.lewybodydementia.org/lbdlinks.html> in June 2005.

² Boeve M.D, Bradley F., et al. "REM Sleep Behavior Disorder in Parkinson's Disease and Dementia with Lewy Bodies." *Journal of Geriatric Psychiatry and Neurology*. Sage Publications. v. 17(3). September 2004.

³ Ferman, PhD. "Dementia With Lewy Bodies: A Review of Clinical Diagnosis, Neuropathology and Management Options." *Jacksonville Medicine*. 2.2002. Accessed on the Internet at <http://www.dcmsonline.org/jax-medicine/2000journals/February2000/lewybodies.htm> in June 2005.

LBD progresses more rapidly than AD, and symptoms presented can be anywhere from 2-20 years, with an average prognosis of 5-7 years.

When considering the history of the patient, the specialist will make use of cognitive tests and laboratory work. The tests can be neurological, cognitive and neuropsychological. For example, many physicians will use the Mini-Mental State Examination (MMSE), test language skills and math skills. Fluctuating levels of cognitive ability may make the patient seem quite normal at times, and diagnosis can be a long, frustrating process when different physicians, and even family members, see the same patient in various states of mind. Like AD, only a process of elimination can achieve a diagnosis of LBD. For further clarification, imaging (CT, MRI, PET) is used to view atrophy in the brain, sometimes a indicator of dementia or stroke. Unfortunately, there is no cure for LBD and the disease can only officially be diagnosed by autopsy.

After making a preliminary diagnosis, the GP may make referrals to different specialists, including a neurologist, gerontologist, psychiatrist, nurse practitioner, pharmacologist, social worker, and nutritionist.

Different dementia diseases can overlap: "Dementia with Lewy bodies is present in about 15 and 30 percent of cases diagnosed by the pathologist as Alzheimer's disease. Conversely, of cases showing Lewy-body dementia, 60 to 90 percent also have Alzheimer's pathology. Thus, to a degree, the pathological hallmarks of Alzheimer's disease – plaques, tangles, and the associated synaptic and neuronal loss - are features in the large majority, but definitely not all, of Lewy-body dementia cases..."⁴ This overlap of diseases obscures the symptoms, giving patients symptoms of both AD and LBD. This is a major contributor to the difficulty in making an accurate diagnosis.⁵

The LBD patient may need various medications to manage the dementia, unsteady movements with falling, and behavioral changes. Cholinesterase inhibitors have been shown to be effective in some patients; in others the medication made no difference. Neuroleptics are often given to patients suffering from hallucinations. Accurate diagnosis is critical because LBD patients may react adversely to neuroleptics; further, studies have shown that these negative reactions may not be reversible.^{6, 7}

As diagnosis is made and treatment options are discussed, a support system must be established. It is important that caregivers be counseled, educated, and given realistic expectations for the future, as the comfort of the patient will be achieved by hands-on care as much as with medication.

Every LBD patient is different and LBD research has a long way to go. In the meantime, there are resources available for caregivers and physicians. The Lewy Body Dementia Association (LBDA) website is at <http://www.lewybodydementia.org> and includes links to two other online LBD caregiver support groups. The Canadian Alzheimer's Association website is at <http://www.alzheimer.ca>.

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⁴ Honig, M.D., Ph.D., Lawrence S. "Recognition of Vascular Dementia, Dementia with Lewy Bodies, and Frontotemporal Dementia." Accessed from the Internet on June 16, 2005 at http://ci.columbia.edu/c1182/web/sect_5/c1182_s5_3.html

⁵ Lippa CF, McKeith I. "Dementia with Lewy bodies: improving diagnostic criteria." *Neurology* 2003; 60:1571-1572.

⁶ Ferman

⁷ Khotianov, M.D., et al. "Lewy Body Dementia: Case Report and Discussion." *J Am Board Fam Pract.* 2002 Jan-Feb;15(1):50-4.