

FAQ - Posterior Cortical Atrophy

What is Posterior Cortical Atrophy?

Posterior Cortical Atrophy, or PCA, is most commonly an atypical clinical presentation of Alzheimer's disease. People with PCA often come to the clinic because they are having trouble interpreting information they see with their eyes (known as "visual processing impairment"), rather than with symptoms of memory loss. Because memory loss is the most common presenting symptom of Alzheimer's disease, PCA is referred to as "atypical Alzheimer's disease."

What is the visual variant of Alzheimer's disease? Is it the same as PCA?

The visual variant of Alzheimer's disease, or VVAD, is a term that can be appropriately applied to PCA in certain circumstances, such as when a person experiences dementia due to Alzheimer's disease and the predominant symptom is visual processing impairment. However, the diagnostic term of VVAD is falling out of favor because we have new criteria to support a diagnosis of PCA that would include VVAD.

Is PCA always due to Alzheimer's disease?

No. It is estimated that PCA is due to causes other than Alzheimer's disease approximately 15% of the time. Other causes of PCA include Lewy body dementia and corticobasal degeneration.

How and why is vision affected in PCA?

The eyes themselves are not affected by PCA, yet people with PCA have a difficult time seeing and interpreting visual information. Symptoms vary with each person, but the most common presentation at onset is simply having problems seeing without an explanation. As the disease progresses, symptoms become more apparent and often include difficulty with depth perception, problems finding objects that are in plain view, difficulty reading, trouble driving, and problems recognizing faces. It should be noted that the formation of some new memories relies on our ability to process visual information. Therefore, PCA can contribute to problems remembering visual information because the brain did not properly process it.

The reason that vision is affected in people with PCA is because at least 25% of the human brain has vision and visual processing as its main responsibility. The regions in the back of the brain (known as the posterior regions) are where most of the visual processing takes place, thus the word “posterior” in PCA. The part of the brain affected is the “cortex,” which is the layered and wrinkled part of the brain that processes information at a very high level. Since the brain cells in the posterior cortex are lost to the disease, the term “atrophy” is used, which refers to the loss or shrinking that occurs when brain cells die. Although PCA was named because of the distinctive atrophy of the cortical regions in the back of the brain observed by an MRI scan, atrophy of the posterior regions of the cortex may not be prominent when symptoms first appear.

How is PCA diagnosed?

There is no one test that can be used to make the diagnosis of PCA. Instead, complete eye and neurologic examinations are necessary to make sure there are no other causes of the visual symptoms, and basic laboratory tests and brain imaging are also important components of the evaluation. Often, visual field tests, which measure the visual sensitivity of the full field of vision, can show problems not explained by an MRI of the brain or by the examination of the eye itself and can lead to the discovery of PCA. Visual field tests are often ordered by ophthalmologists or optometrists when trying to determine the cause of a person’s visual problem when an examination of the eye does not allow for a diagnosis. Also important to the diagnosis are the cognitive tests of attention, memory, language, and executive functions that are helpful in differentiating PCA from other problems.

Is there a treatment for PCA?

There is currently no treatment for PCA, but supportive measures and symptomatic medications, such as those used in the treatment of Alzheimer’s disease, and other therapies may help. The Rocky Mountain Alzheimer’s Disease Center (RMADC) at the University of Colorado School of Medicine has on-line information about Alzheimer’s disease. Dr. Victoria Pelak directs patient support group meetings every other month for people with PCA, and you can find out more about this by clicking here: [Colorado PCA Support](#). Another important on-line site, with video-taped lectures about PCA and information and support can be found at <http://pca-vision.org/>. If you have further questions, please see our [Colorado PCA](#)

[Support](#) webpages where you will find a link to email us with your questions.