

What You Should Know About Vigabatrin-Associated Visual Field Defects

By David J. Browning, MD, PhD

What is Vigabatrin and what is the concern?

Vigabatrin is a drug used to treat patients with complex partial seizures. It is also used to treat infantile spasms. It has been associated with visual field loss in some cases. When visual field loss has occurred it has tended to be concentric shrinking of the field or loss of the nasal field in both eyes.(1)

What is the mechanism of toxicity?

The answer to this question is speculative. Vigabatrin is an irreversible inhibitor of GABA aminotransferase, an enzyme involved in synthesis of GABA, an inhibitory neurotransmitter in the retina. Possibly vigabatrin damages retinal cells in which this neurotransmitter is important.

What are the symptoms of Vigabatrin-associated visual field defects?

Many patients with this drug toxicity have no symptoms. The visual field defect is detected on screening in such cases.

How are Vigabatrin-associated visual field defects detected?

A test called a visual field is done. The patient places his head in a white bowl onto which lights are projected. The patient looks at a fixation light during the test. When the patient sees the test light, he presses a button and the computer records the response. At the conclusion of the test, the map of responses is displayed for the ophthalmologist to review.

Is there treatment?

Vigabatrin-associated visual field defects are irreversible. They usually do not progress in severity even if the drug is continued. Because control of seizures is important, many patients continue to take Vigabatrin even if they have developed visual field defects.

What is the prognosis?

Patients generally do not suffer any decrease in visual acuity. The ability to drive and read is usually unaffected.

After reading this information, if you would like to learn more about vigabatrin-associated visual field defects, an excellent resource is the Pubmed site on the National Library of Medicine web page at the following link:

<http://www.ncbi.nlm.nih.gov/entrez/query.fcgi>.

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Reference List

- (1) Best JL, Acheson JF. The natural history of vigabatrin associated visual field defects in patients electing to continue their medication. *Eye* 2005; 19:41-44.