

Complementary/alternative medicine for epilepsy

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Epilepsy is a condition of recurrent seizures that are not caused by some other medical condition. Over 1.5 million people in the United States have been diagnosed with epilepsy, with about 150,000 new diagnoses each year. Antiepileptic drugs (AED) are the most common therapy used to treat epilepsy. There are a number of AED. The one chosen by the physician for a particular patient is based on several factors. These include the type of epilepsy the patient has, how likely the medicine is to work for that patient, and the side effects the medication may cause. Another thing to keep in mind is that many other medications, prescription and over the counter, may interfere with how well AED work. They may increase or decrease the amount of AED in the blood and brain, which in turn can lead to more seizures or side effects. More information about epilepsy can be found on the next page.

In this issue of *Neurology*, investigators study the use of complementary or alternative therapies (CAM) by patients with epilepsy. "Complementary" and "alternative" are medications that are available over the counter without a prescription. They are not covered by medical insurance. Many have not been tested in scientific studies for how well they work or how safe they are. One goal of this study was to find out how often people with epilepsy use CAM. Other goals were to find out whether physicians knew whether their patients were using CAM and whether physicians even recognized more com-

monly used CAM. This study also gathered information about the effects of CAM use on seizure control and quality of life in patients with epilepsy.

A 40-question survey was mailed to 3,100 members of the Epilepsy Foundation of Arizona. This group included patients with epilepsy, their families, and their physicians. Only 11% of surveys were returned. Half of the people with epilepsy had tried CAM at some time for seizure control. Almost half used them for other reasons. Overall, people found CAM to be generally beneficial to their health. The most helpful were stress reduction, yoga, and botanicals (herbs). Nonetheless, half of the patients taking botanicals had an increase in their seizures. One third of the patients felt that CAM helped treat their epilepsy better than the AED. However, very few patients considered stopping the AED. Almost all of the patients stated they would feel comfortable informing their physician about CAM use. Physicians stated that they were not aware of all of the CAM used by their patients and did not encourage CAM use.

This study stresses the need for patients with epilepsy who are taking CAM to talk to their physician about it. Also, the medical community managing or treating epilepsy needs to become familiar with CAM that their patients are taking. This is especially important for CAM that might interfere with how well AED work. Although some

herbs may improve seizure control, almost half of the patients thought their seizure control was worse when they took botanicals. Stress reduction techniques and yoga may be helpful to patients with epilepsy without interfering with AED. As only a small percentage of surveys were returned, it is difficult to say how many people with epilepsy may be using CAM. Similar studies need to be performed in other regions in the United States. We need to know how many people with epilepsy in the United States use CAM. We also need more information about benefits and side effects of CAM.

The reasons why people with epilepsy might use CAM were not investigated by this study. From another survey we know that 20% of patients adjust their AED medications on their own for a variety of reasons. Patients may take CAM (or not take AED as their physicians prescribe) when seizures are worsened by the AED or AED side effects are present. Common AED side effects such as difficulties with thinking, decreased energy level, decreased school performance, risks to childbearing, impaired coordination, and sexual dysfunction may cause patients with epilepsy to want to stop their medicines. It is very important for patients with epilepsy to discuss problems with seizures or side effects openly with their physician. A team approach to managing epilepsy is likely to have the best results for the patient with epilepsy. This can only happen when all the team members are well informed.

What is a seizure?

A seizure is a disruption in the normal electrical activity of the brain. Normally the brain is very active, passing electrical messages back and forth between nerve cells. When a person has a seizure, there is abnormal firing of nerve cells and the messages become jumbled in part or all of the brain.

A seizure may cause a variety of different symptoms, such as twitching or shaking in an arm, leg, one side of the face, or the whole body; repetitive movements or gestures; confusion; feelings of fear or other emotions; hallucinations (odd smells, tastes, sounds, or seeing things that are not there); loss of consciousness; and convulsions.

What causes seizures?

Anyone may have a seizure in certain conditions. Common causes are fever (in young children) (see febrile seizures, below); head trauma (during birth or any time later); infection of the brain or nervous system (e.g., meningitis); brain tumors; very low blood sugar; stroke (a brain attack); lack of oxygen to the brain; and poisoning (e.g., alcohol and various drugs).

What are febrile seizures?

Febrile seizures are generally benign and occur in children from ages 3 months to 5 years, with average age at onset of 18 to 22 months. They occur in the setting of a febrile illness, usually as the fever is rising fast. They are associated with common childhood infections such as ear infections, tonsillitis, upper airway infections, and gastrointestinal infections. Most are associated with viral illnesses.

Febrile seizures are more common in boys. They also tend to run in

families. About one third of children who have a first febrile seizure will have a second one, almost always within 2 years. The earlier the onset of febrile seizures, the greater chance that they will recur. However, less than 5% of children with febrile seizures go on to develop epilepsy.

Although febrile seizures are usually benign, it is critical that the child be evaluated immediately to identify the cause of the fever and treat conditions such as meningitis or intoxication.

What is epilepsy?

Epilepsy is an episodic recurrence of seizures that are not due to fever, active infection, drug effects, or other triggering causes. It may be caused by a variety of conditions that injure a part or all of the brain, such as problems in development of the brain that occurs before birth, inherited disorders of the brain or nervous system, brain trauma, brain tumors, stroke, infections, and poisoning. About 70% of cases have no known cause.

Each year there are 125,000 new cases of epilepsy. About 2.5 million people in the United States have some form of epilepsy.

How is epilepsy diagnosed?

Medical history: the doctor will need to know as much as possible about what happened during, immediately before, and after the seizure. How often seizures occur, whether there are any warning signs, and whether the patient remembers anything about the seizure are all important. Someone who has witnessed the seizures can provide valuable information that the patient may not know.

Electroencephalography (EEG) is a simple and painless study that records the brain's electrical activity picked up by tiny wires taped to the head. Specific brain wave patterns may be noted during or between seizures in patients with epilepsy and may help with diagnosis.

Imaging studies to look at the brain may be helpful in locating tumors, scars, or other abnormalities that may be causing seizures. MRI (magnetic resonance imaging) and CT (computed tomography) scans create pictures of the inside of the brain.

How is epilepsy treated?

Drugs called anticonvulsants are used most commonly to treat seizures. There are a number of different medications that can be used, alone or in combination. These drugs are effective in 60 to 80% of cases. Close supervision by a doctor is essential to watch for side effects and obtain the best seizure control.

People with epilepsy can help control seizures by avoiding alcohol and caffeine, avoiding unusual stress, getting enough sleep, taking their medications as prescribed, and working closely with their doctor. A special diet may be helpful in controlling certain types of seizures in children but requires very close medical supervision. Surgery may be very helpful when medication fails and the area of the brain where the seizure occurs is known.

For more information

Epilepsy Foundation of America:
www.efa.org