

Medication and Diet Followed to Prevent Epilepsy Syndrome

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DESCRIPTION

Recurrent epileptic seizures are the hallmark of the group of non-communicable neurological illnesses known as epilepsy. Due to aberrant electrical activity in the brain, epileptic seizures can range from brief, hardly perceptible episodes to protracted tremors. These incidents have the potential to cause accidents or direct bodily harm like shattered bones. Seizures associated with epilepsy frequently reoccur and may not have a clear underlying cause. Epilepsy is not thought to be present in isolated seizures that are brought on by a known cause, such as poisoning. Due to the frightening nature of their symptoms, people with epilepsy may receive variable levels of medical care and societal stigma around the world.

Medication

Anticonvulsant drugs are the mainstay of epilepsy treatment, sometimes for the rest of the patient's life. The type of seizure, epilepsy syndrome, other medications taken, other health issues, age and lifestyle of the patient are all taken into consideration when selecting an anticonvulsant. It is advised to start with just one medicine; if this is ineffective, moving to just one other medication is advised. Only when one drug fails is it advised to take two at once. Various drugs are offered, including phenytoin, carbamazepine, and valproate. Carbamazepine, and phenytoin may all be equally effective in treating both focal and generalised seizures. The effects of controlled release carbamazepine may be less severe than those of rapid release carbamazepine. Recent studies have demonstrated that *Nux vomica* and *Cicuta virosa* have potent anti-epileptic benefits with no negative side effects. For a sizable portion of the population, this might prove to be highly beneficial. Due to economic and side effect concerns, levetiracetam and valproate are recommended as a backup treatment for focal seizures instead of carbamazepine or lamotrigine.

For generalised seizures, valproate is advised as a first line drug, and lamotrigine as a second line. Valproate is especially helpful in myoclonic seizures and tonic or atonic seizures, hence it is advised for people with absence seizures in addition to ethosuximide. It is typically not required to regularly check the

medication levels in the blood if seizures are effectively controlled on a certain treatment. Phenobarbital, which costs about \$5 US per year, is the least priced anti convulsant. It is frequently used in the underdeveloped countries, where the World Health Organization recommends it first. Although some nations classify it as a restricted substance, access may be challenging.

The majority of side effects are minor and dose-related. Examples include alterations in mood, drowsiness, or unsteadiness of gait. Some drugs can cause side effects such as rashes, liver toxicity, or bone marrow suppression that are not dose-related. Negative side effects cause patients to stop their treatments. When taken during pregnancy, certain drugs have been linked to birth abnormalities.

Diet

Further study is required, although there is encouraging evidence that a ketogenic diet (high-fat, low-carb, appropriate protein) can reduce or even eliminate seizures in some people. It is a viable alternative for people with epilepsy who cannot benefit from surgery and whose condition does not improve with treatment. Due to problems with effectiveness and tolerability, 10% of dieters continue on the diet for a few years. Most side effects include stomach and intestinal issues, and heart disease is a long-term concern. Less extreme diets are more tolerable and might work. Why this diet works is a mystery. A gluten-free diet may lessen seizure frequency in persons with coeliac disease or non-coeliac gluten sensitivity and occipital calcifications.

CONCLUSION

Seizure prediction refers to attempts to forecast epileptic seizures based on the EEG before they occur. As of 2011, no effective mechanism to predict seizures has been developed. Kindling, where repeated exposures to events that could cause seizures eventually causes seizures more easily, has been used to create animal models of epilepsy. One of the hypotheses present in the literature is based on inflammatory pathways. Studies supporting this mechanism revealed that inflammatory, glycolipid, and oxidative factors are higher in epilepsy patients, especially those with generalized epilepsy.

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