



Review Article

A Review On Epilepsy Its Treatment

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ABSTRACT

Nowadays, people face various types of stress in their busy daily life and most of the people the world suffers from various neurological disorders. Epilepsy is one of the most common neurological diseases of the brain that affect about 50 million people worldwide and 90% they are from developing countries. Genetic factors, as well as infection in the brain, stroke, tumor and high fever causes epilepsy Epilepsy is a group of non-infectious neurological diseases characterized by recurrent seizures. Epilepsy is a neurological condition that causes unprovoked, recurrent attacks . Its administration is confusing and as such is not curative, but rather relieves cramps without side effects. However, the approach The most effective drugs and doses have not been selected for individual patients. Almost everything Currently used epilepsy drugs are associated with side effects, some of which are serious and life-threatening. A more comprehensive treatment strategy requires better research epilepsy , information about specific characteristics of epilepsy is needed provide appropriate treatment for each patient. The purpose of this study was to describe the updates definitions, types of epilepsy, etiological classifications, diagnosis, most important pharmacological and alternative treatments. Methods: This is an integrative literature review with a descriptive approach. This review article focuses on providing a basic understanding of all aspects epilepsy as a neurological disorder considering its classification, causes, diagnosis and various types of treatment that focus on a treatment model that aims to prevent, control or check its presence because it cannot be cured

INTRODUCTION

The word epilepsy derived from the Greek work 'epilepsia' which 13 means 'to take hold of' which in turn was combined form 'epi' means upon and 'lambanein' means to take. In-ancient time's epilepsy was connected with religions faint or ever

a possession by a demon . I used to have epilepsy associated with old-fashioned religions or possessed by demons. Epilepsy was once considered a holy disease and many people stuck to this opiion because they thought it only affected those who had the disease were partially possessed

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by demons or because epileptics had visions sent by the gods. Even among the animistic Hmong generations, for example, epilepsy was considered as a demonic spirit and attack, although the sick person can become a shaman by himself experiences Even among the animistic Hmong generations, for example, epilepsy occurred considered as an attack by a demonic spirit, but the victim can be respected a shaman there through explicit experiences can indicate that in most cultures peoples people with epilepsy were abused and even kept in prisons; in Salpetriere, the birthplace of modern neurology, Jean-Martin Charcot discovered this epilepsy people are mentally retarded because they have chronic syphilis or are criminally insane . One Punarvasu Atreya described epilepsy as a loss of consciousness around 900 BC. Above But the ancient Greeks had a different opinion about this term. They argued that epilepsy is a certain type of having a spirit and associated it with genius and divinity. The Greeks considered it important the sick included Hercules and Julius Caesar. Because they believe that some epileptics were brilliant, the Greeks were not hostile to all epileptics .

Type of Seizures :

Focal Seizures :

- if seizures appear to be caused by abnormal activity in only one area of the brain, they called focal seizures These seizures .These seizures are divided into two categories . .
- Generalized Seizures: seizures that seem to involve an entire area of the brain are called generalized seizures. six types of generalized seizures. Scenes of Absence formerly known as Petit mal seizures, which usually occur in children .

1. Tonic Seizures :

Tonic seizures cause muscle stiffness and can affect consciousness. These scenes are usually impressive muscles in the back, arms and legs and can cause you to fall to the ground .

2. Atonic Seizures:

Atonic seizures, also known as drop seizures, cause loss of muscle control. They mainly affect the legs, often causing a sudden collapse or fall to the ground.

3. Clonic Seizures :

Clonic seizures are associated with repetitive or rhythmic jerky muscle movements affects the neck, face and hands

4. Myoclonic Seizure:

Myoclonic seizures usually occur as sudden, brief jerks and are usually affecting upper body, arms and legs

5. Tonic Clonic Seizure :

The most dramatic are tonic-clonic seizures, formerly known as grand mal seizures seizures

Sign and Symptoms of epilepsy :

In a child, the symptoms can vary in severity depending on the type Stage Rights may include

- Staring
- Jerky movements of arms and legs
- Relaxation of the body
- Loss of consciousness
- Breathing problems or breathing stops
- Loss of bowel or bladder control
- Anxiety
- Weakness
- Headache
- Drowsiness
- Sweating
- Confusion

Causes:

The cause of epilepsy is completely unknown. The word epilepsy does not say anything about the cause or severity of the disease In some cases, some cases of epilepsy are due to genetic causes factors, but it can also cause traumatic brain injury 19 to the head, stroke, infections, high fever or tumor It was found that heredity (genetics) plays an important role in many causes of epilepsy in very young



children, but it can be a factor people of all ages. For example, anyone who is having a hard time head trauma (an obvious cause of seizures) causes epilepsy.

1. The most common causes in the newborn period and early childhood have hypoxic-ischemic encephalopathy, central nervous system infections, trauma, congenital abnormalities of the central nervous system and metabolic disorders.
2. Most common fever in late childhood and early childhood seizures can be caused by central nervous system infections and trauma.
3. Epilepsy syndromes in childhood are usually well defined observed
4. Causes are more likely in adolescence and adulthood secondary to any CNS lesion.
5. Cerebrovascular diseases are most common in the elderly cause, other causes include tumors of the central nervous system, head injuries and other degenerative diseases such as dementia

Risk Factor :

Certain factors can increase your risk of epilepsy

1. Age: Onset of epilepsy is most common in children and older adults, but the condition can appear at any age.
2. Family history: If you have a family history of epilepsy, you may have a higher risk of developing the disease. the development of an epileptic disorder .
3. Head injuries: Head injuries are the cause of some cases of epilepsy .
4. Stroke and other vascular diseases: Stroke and other blood diseases can cause brain damage that may trigger epilepsy .
5. Dementia: Dementia can increase the risk of epilepsy in older adults .
6. Encephalitis: Infections, such as meningitis, that cause inflammation in your brain or spinal cord, may increase your risk .

7. Seizures in childhood: A high fever in childhood can sometime A high fever in childhood can sometimes be associated with a seizure.

Epidemiology :

Epilepsy is one of the most common serious neurological diseases 16 disturbances. It is estimated that 55 people are missing 17 seizures in India, 20 missing in the US and 3 missing in the UK. 120 every year per 100,000 US citizens seeking medical care due to a recent seizure. At least 8% of the total population has at least one seizure and does not have epilepsy. The frequency of recurrence of first unprovoked seizure within 5 years varies between 23% and 80%.⁶ Age-adjusted incidence . There are 44 cases of epilepsy per 100,000 people per year. Every year or so There are 125,000 new cases of epilepsy; 30% of them are in humans less than 18 years at diagnosis. Relatively high the prevalence of epilepsy in the elderly is now recognized. at at least 10% of patients in long-term care facilities take at least one antiepileptic drug (AED). National Guard Center Epilepsy Surveillance - EpilepsyRelated Deaths Bereavement Investigators Pay Attention this importantthing. The review revealed that 1,000 deaths occur in the UK each year epilepsy and most were related to seizures and 42% of deaths where Potentially available.

Prevention :

About 25% of epilepsy cases are preventable. Prevents head injury is the most effective way to prevent post-traumatic epilepsy. Enough perinatal treatment can reduce new cases of epilepsy caused by birth injury. The the use of drugs and other methods to reduce feverish body temperature the child can reduce the possibility of febrile seizures. Prevention of epilepsy stroke-related focus on reducing CVD risk factors, e.g. high blood pressure, diabetes and obesity and avoidance of tobacco and excessive alcohol consumption. during interictal dysphoria



episodes with or without psychotic features or state postal depression. It can be prevented psychopharmacological treatment Unexpected sudden death in epilepsy it has been found that it is en associated with generalized tonic-clonic seizures and increased heart rate, especially during night raids. Hence the night watch is associated with a lower risk of occurrence .Preventing epilepsy involves minimizing risk factors and addressing potential causes. Measures include avoiding head injuries, managing cardiovascular health, getting enough sleep, and minimizing alcohol and drug use. Consult with a healthcare professional for personalized advice.

Pathophysiology:

Seizures are episodic manifestations in the cortex. A a seizure is caused by a sudden imbalance excitatory and inhibitory forces in the cortical network neurons. The basic physiology of an episode of epilepsy is observed in or near/adjacent to an unstable cell membrane supporting cells. Seizures arise from any gray matter cortical or subcortical region. At first, a small number of neurons fire abnormally Normal membrane conductance and inhibition synaptic current decay and hyperexcitability also spread locally to produce the focal scene or more broadly a generalized seizure. This burst spreads physiologically lanes adjacent to peripheral areas. It is necessary to distinguish epilepsy, which is a progressive neurological disorder of the brain, of the scenes themselves, which are separate, pass away events resulting from abnormal, excessive or synchronous activity of brain neurons.⁹ Signs and seizure symptoms may include warnings, such as visual or sensory aura, déjà vu, tingling fingers, altered consciousness and abnormal or convulsive movements. Physiology is behind the epileptic process mechanisms involved in the development of seizures (ichtogenesis), as well as persons related to them turns the normal brain into seizures prone brain (epileptogenesis).

Treatment:

- Non-pharmacological
- Exercise
- restrictions on sodium content in foods
- Dash
- Weight reduction
- Avoid smoking & Avoid drinking alcoho
- Stress management

2 pharmacological treatment

(a) Barbiturate

Phenobarbitone also prevents the decrease in calcium release For example, phenobarbitone .

(b) benzodiazepine

It prevents polyseptic activity in the spinal cord For example, clorazepam, diazepam .

(c) GABA analog/cyclic GABA

The enzyme GABA-strans-aminase, which is responsible for the breakdown of GABA and its vigabatin, is inhibited. Trans-amines .

B) Anti-acceleration drug

(a) Hydantoins

By blocking the sodium channel For example, phenytoin, mephenytoin .

(b) Carbamazepine:

It is also used to treat trigeminal neuralgia (a condition that causes pain in the facial nerve).

(c) Succinimide:

It is used in missing scenes E.g. ethosuximide

(d) Oxazolidine indoine derivative:

It was used in optimal scenes For example, trimethadione, paramethadione .

(e) valporic acid derivative

E.g. valporic acid, valporin sodium

Ayurvedic Herbs for Epilepsy:

- 1. Brahmi :** Brahmi, specifically the herb *Bacopa monnieri*, has been traditionally used in Ayurvedic medicine for various purposes, including neurological conditions. Some studies suggest that *Bacopa monnieri* may have neuroprotective and anti-epileptic properties. However, it's crucial to note that



scientific research on this topic is ongoing, and more evidence is needed to establish its effectiveness for epilepsy. If you or someone you know is considering using Brahmi for epilepsy, it's important to consult with a healthcare professional to discuss potential benefits and risks, as well as to ensure that it complements any existing treatment.

2. **Jyotishmati** : Jyotishmati, also known as *Celastrus paniculatus*, is an herb used in traditional Ayurvedic medicine. While it has been suggested to have various potential benefits, including improving cognitive function, there is limited scientific evidence regarding its specific use in epilepsy. If you or someone you know is considering using Jyotishmati for epilepsy, it's crucial to consult with a healthcare professional. Epilepsy is a complex neurological condition, and any complementary or alternative treatments should be approached with caution and under the guidance of a medical expert to ensure safety and effectiveness.
3. **Shankhapushpi** : Shankhapushpi (*Convolvulus pluricaulis*) is an herb commonly used in traditional Ayurvedic medicine, and it's often suggested to have neuroprotective and cognitive-enhancing properties. Some people use Shankhapushpi as a natural remedy for various neurological conditions, including epilepsy. However, it's important to note that scientific evidence supporting the use of Shankhapushpi specifically for epilepsy is limited. Epilepsy is a serious medical condition, and any consideration of complementary or alternative treatments should be done in consultation with a healthcare professional. Always seek the guidance of a qualified medical practitioner before incorporating herbs or supplements into your treatment plan for epilepsy.
4. **Vacha**: Vacha, also known as *Acorus calamus* or Sweet Flag, is an herb that has been used in traditional medicine systems, including Ayurveda. It is believed to have various medicinal properties, including potential benefits for the nervous system. In Ayurveda, Vacha is sometimes used for its supposed neuroprotective and calming effects. Some traditional practices suggest its use in neurological disorders, including epilepsy. However, it's essential to emphasize that scientific evidence supporting Vacha's efficacy in treating epilepsy is limited.
5. **Tagar** : Tagar, scientifically known as *Valeriana wallichii*, is an herb traditionally used in Ayurvedic medicine. While it has been studied for various health benefits, there is limited scientific evidence regarding its effectiveness specifically for epilepsy. Epilepsy is a complex neurological disorder, and its management typically involves medications prescribed by healthcare professionals. It's crucial to consult with a doctor before considering any alternative or complementary treatments, including the use of Tagar, to ensure they are safe and appropriate for your specific situation.
6. **Ashwagandha** : Ashwagandha (*Withania somnifera*) is an adaptogenic herb that has been traditionally used in Ayurvedic medicine for various health purposes. Some studies suggest that ashwagandha may have neuroprotective effects and could potentially help manage stress, anxiety, and related conditions. However, there isn't robust scientific evidence specifically supporting or disproving the use of ashwagandha for epilepsy. Epilepsy is a complex neurological disorder, and its treatment typically involves antiepileptic medications prescribed by healthcare professionals.

CONCLUSION

So the choice of anticonvulsant drug is primarily its effectiveness in some types of epileptic epilepsy. Although Seizure control is generally good, significant in most patients some people with epilepsy undergo severe or drug treatment. immune epilepsy despite early treatment and optimal day dosing of an appropriate anticonvulsant. Epilepsy has specific characteristics that must be precisely defined and understand, especially if it is difficult to control. Information about the type of crisis, etiology, contributing factors and pharmacological effects all types of emergencies are necessary for proper management of epilepsy. Treatment of patients with drugs resistance remains a major problem doctors Clinical variability symptoms from the point of view of epileptic semiology and of course versatile and often unexpected periods of remission and relapse in DRE patients, changes it difficult to compare clinical trials and develop criteria

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