Epilepsy: A Review

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Summary

Epilepsy is a nervous disorder in which a person loss his consciousness. This disorder is mainly due to recurrent seizures. These seizures show the abnormal neural activity. Epilepsy mostly occurs in young children. It has many classes depending upon the specific portion of the brain i.e. frontal lobe epilepsy. It is also classified on the bases of action of seizures. Epilepsy can treat with medication by physician and by surgery. Different types of surgery are used such as palliative surgery, MST, hemisperectomy, VNS and noninvasive surgery etc. it is also curved by the physical activities.

Keywords: Recent unprovoked seizers, atonic, precipitants, Trauma, Cerebrovascular disease, Intracranial Electrodes, Electrocorticography, Colostomy, vagus stimulation ,neuropace, long term EEG .psychological interventions.

"It is a common neurological [(1)] disease characterized by abrupt transient symptom of motor, sensory, psychic or autonomic mature, frequently associated with changes in consciousness"

It is also characterized by recurrent unprovoked seizures [(2)].These seizures are signs of symptoms of abnormal neurological activity in any part of brain. Epilepsy affects about 50 million people of the world commonly in developing countries. It is mostly occur in young children or people having age more than 65 years. Epileptic seizers may occur in recovering patients of brain surgery.

Classification:

Epilepsy is classified in five different; by their first cause, Semiology[3] (observable knowledge of seizers), by the place or area in brain from where seizers originate or initiate, as a part of discrete medical syndrome and by the epilepsy stimulation cause.

Types of epilepsy:

There are forty different types of epilepsy which are as follows: Absence seizers, Frontal lobe epilepsy, Temporal lobe epilepsy [4], Childhood absence, Abnormal epilepsy, Catamenial epilepsy [5], Autonomic seizers, Benign rolandic epilepsy, Clonic seizers, Rett syndrome [6], Gelastic seizers, Lafora disease, Motor seizers, visual reflex seizers and many other types of epilepsy related to different parts of brain and their stimulation factors.

Causes of epilepsy:

Spontaneous occurance of seizers is responsible for the diagnosis of epilepsy. Yet certain epileptic syndromes are activate the occurance of these seizers, which is called Reflex epilepsy [7] initiate by reading and photosensitive epilepsy stimulated by flashing lights. By different effect of various precipitant [8].Catamenial epilepsy indicates the seizers that effect the menstrual cycle.

Different age group have different causes of epilepsy i.e. CNS infections, Trauma, metabolic disorder [9]. All are causes of epilepsy when pregnancy starts. Febrile seizures are common during late infancy [10] and early childhood. The reasons of these seizures are different but these may cause due to CNS-infections and trauma. The epilepsy which occur during adulthood mainly due to secondary causes. The idiopathic epilepsy is less common. Commonly epilepsy occurs in these age groups is due to stress Trauma, CNS-infections [11], illicit drug use etc.

Treatment of epilepsy:

Prescribed medication by a physician usually used for the treatment of epilepsy. To treat epilepsy it is necessary to different generalized and practical seizures. Some times a special diet also helpful neurosurgical operations [12] may decrease the frequency of severness of seizures or in some cases operation may be curative.

Medications:

Commonly anticonvulsant [13] medications are used for the curement of epilepsy. Often, this treatment is long life and imparts major effects on quality of life. The choice of drugs and their effect differ by epilepsy syndrome. Mechanisms also different for different anticonvulsant medications. There are 20 medications approved by the food and drugs.

Surgery:

The patients who create resistance against anticonvulsant medications have 2nd choice of epilepsy surgery. If non invasive testing[14] was unable to detect the epileptic focus for distinguishing the effected area from normal brain tissue. Then some lesions demand ling term video EEG controlled by using intracranial electrodes [15]. In some patients invasive testing scheme is done by the process called Electrocorticography.

Palliative Surgery:

In this type of surgery the severness of seizures is decreased by different techniques. Example is colostomy[16] which stops the seizures from spreading in whole brain which causes loss of consciousness or seizures are not controlled by any other treatment then this technique is used.

Multiple Subpial Transaction:

When the epileptic seizures spread near the important functioning areas of cortex then this process is used to stop the spreading of these seizures. This surgery reduced not eliminates them.

Vagus nerve Stimulation:

In this type of surgery an electrical instrument similar to pacemaker in construction and almost in function is used. It attraches to the vagus nerve [17] in the neck area and thus we control the epilepsy seizures Cyberonics [18] is such a device made by us.

Responsible Neurostimulator System:

In this system a computerized electrical device is used. This device place in skull and its electrodes attack at the infected area of the brain.

Deep Brain Stimulation:

It is similar to the VNS and placed in the chest. The depth electrodes are attached to the deep brain structures and they give electrical stimulation through the skill structures. Anterior nucleus of the thalamus of the brain is a site for the attachment of electrodes in epilepsy.

Alternative or Complementary Medicine:

Psychological treatment [19], vitamins and yoga. These methods are used for the treatment of epilepsy and approved by systematic reviews. There is no evidence which support the use of these techniques for the treatment of epilepsy. Many physicians suggests the exercise and many other physical activities for the treatment of epilepsy [20].

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