
HISTORY OF EPILEPSY

A HISTORICAL POINT OF VIEW

Epilepsy has afflicted human beings since the dawn of our species and has been recognized since the earliest medical writings. In fact, few medical conditions have attracted so much attention and generated so much controversy as epilepsy.

400 B.C:

The Greek physician Hippocrates writes the first book on epilepsy. *On the Sacred Disease*. Refuting the idea that epilepsy is a curse or a prophetic power. Hippocrates proves the truth: It's a brain disorder. "It is thus with regard to the disease called Sacred: it appears to me nowise more divine nor more sacred than other diseases, but has a natural cause like other affection..."

70 A.D:

In the Gospel According to Mark (9:14-29), Jesus Christ casts out a devil from a young man with epilepsy: "Teacher, I brought you my son, who is possessed by a spirit that has robbed him of speech. Whenever it seizes him, it throws him to the ground. He foams at the mouth, gnashes his teeth, and becomes rigid. I asked your disciples to drive the spirit out, but they could not." (NIV)

1494:

A handbook on witch-hunting, *Malleus Maleficarum*, brings a wave of persecution and torture, leading to the death of more than 200,000 women. Written by two Dominican friars under papal authority, the book identifies the presence of seizures as a characteristic of witches.

1859-1906:

Under the leadership of three English neurologist John Hughlings Jackson, Russell Reynolds, and Sir William Richards Gowers the modern medical era of epilepsy begins. In a study, Jackson defines a seizure as "an occasional, an excessive, and a disorderly discharge of nerve tissue on muscles." He also recognizes that seizures can alter consciousness, sensation, and behavior.

1904

The term "epileptologist" was first used to describe a person who specializes in epilepsy. William Spratling, the neurologist who coined the word, is regarded as North America's first epileptologist.

1912

In 1912, two independent teams of chemist created Phenobarbital under the name of Luminal. Phenobarbital is the oldest AED in common clinical use.

1920

The ketogenic diet is one of the oldest forms of treatment for epilepsy. Devised in the 1920s when there were few effective treatments for epilepsy, this special diet, which is high in fat, low in protein, and has negligible amounts of carbohydrate, was created to simulate some of the metabolic effects of fasting, a state known to decrease seizures in some individuals.

1929

A German psychiatrist named Hans Berger announced to the world that it was possible to record electric currents generated on the brain, without opening the skull, and to depict them graphically onto a strip of paper. Berger named this new form of recording as the electroencephalogram (EEG).

1939

Discovery and clinical testing of phenytoin (PHT) BY Merritt and Putnam introduced both a major new non-sedating AED and an animal model of epilepsy. For over forty years, PHT was been a first-line medication for the prevention of partial and tonic-clonic seizures and for the acute treatment of seizures and status epilepticus.

1953

Carbamazepine (CBZ) was synthesized by Schindler at Geigy in an attempt to compete with the newly introduced antipsychotic, chlorpromazine. Over the years, CBZ has gained acceptance as a first-line treatment for partial and tonic-clonic seizures.

1958:

Ethosuximide (ESM) was introduced as an AED and has been the drug of choice for children with absence seizures who do not have tonic-clonic or myoclonic seizures. ESM is also effective for atypical absence seizures.

1963:

Sodium Valporate (VPA) anticonvulsant property was recognized serendipitously when it was used by Pierre Eymard as a solvent for a number of other compounds. VPA is effective over the complete range of seizures.

1968:

The Epilepsy Foundation of America is founded, the only such organization wholly dedicated to the welfare of people with epilepsy. It is now known as the Epilepsy Foundation.

1970:

The Veterans Administration spearheads a movement toward establishing epilepsy centers, launching a new breed of neurologists who began to specialize in the treatment and research of epilepsy.

1990:

Even in the twentieth century, some U.S. states had laws forbidding people with epilepsy to marry or become parents and some states permitted sterilization. To establish a clear and comprehensive prohibition of discrimination on the basis of disability, Congress passed the Americans with Disabilities Act of 1990.

1993:

Felbatol (felbamate) and Neurontin (gabapentin) are FDA approved.

1994:

Lamictal (lamotrigine) is FDA approved.

1996:

Topamax (topiramate) is FDA approved.

1997:

Gabitril (tiagabine) is FDA approved.

1997:

The U.S. Food and Drug Administration (FDA) approved vagus nerve stimulation in combination with seizure medication for partial epilepsy in adults.

1999:

Keppra (levetiracetam) is FDA approved

2000:

Trileptal (oxcarbazepine) and Zonegran are FDA approved.

2000:

A landmark conference, "Curing Epilepsy: The Promise and the Challenge". Organized by the Epilepsy Foundation of America, sets bold goals for tomorrow's treatment including prevention and cure of epilepsy, no seizures or side effects for those with the condition; and finding ways to prevent epilepsy acquired from injury, infection, or errors of development.