SOCIO - CHEMICAL ASPECTS OF EPILEPSY

*Dr. D. K. Awasthi &**Dr Gyanendra Awasthi

*Associate Professor, Department of Chemistry Sri J. N. P. G. College, Lucknow, U. P., India.
**Associate Professor, Department of Bio-Chemistry Dolphin Institute of Biomedical Sciences, Uttarakhand, India.

Email: dkawasthi5@gmail.com

Abstract

Epilepsy is a neurological disorder and patient has full right to live comfortable life without any cultural and social stigma. The drugs which are used in the treatment of Epilepsy are known as Anticonvulsant Primidonne, Sodium Valporate and Sulthiamine etc. Basic components are Barbiturates, Hydantoins and official drugs are Beclamide, Carbamazepine Drugs. It is due to the disorder of central nervous system.

Keywords: Epilepsy, Nervous system, Seizures.

1. Introduction

Epilepsy is one of the oldest documented diseases affecting mankind. It was simply explained as the result of a struggle between good and evil faces. People used magical remedies for their treatment. In Epilepsy patients all of a sudden the body starts jerking and patient starts frothing. But very soon the movements stop and the patients recover consciousness after a while. The patient is told that it was a trance and thanks to timely placement of footwear on his nose that the evil spirit was gone away and his life was saved.

The scientific approach noticed evidences in the favor of concept of epilepsy as a brain disorder. In the 19th century, as neurology emerges as a new discipline distinct from the psychiatry the concept of epilepsy as a brain disorder became more widely accepted. It was more supportive to reduce the social stigma associated with this disorder. About 40 million people worldwide are suffering from epilepsy. Fear, misunderstanding and the resulting social stigma and used discrimination surroundings epilepsy often force pupils with disorder into the shadows. All over the world the social consequences of epilepsy are often more difficult to overcome than the seizures themselves. Their continues to be a cultural and social stigma about epilepsy, although it is slowly reducing in societies with effective health education program. These issues need to be carefully addressed by educating the patient about epilepsy by ensuring the family members; teachers, fellow employees and other associates are equally well informed. Epilepsy is a neurological disorder and patient has full right to live comfortable life without any cultural and social stigma.

The drugs which are used in the treatment of Epilepsy are known as Anticonvulsant Drugs. It is due to the disorder of central nervous system. Basic components are Barbiturates, Hydantoins and official drugs are Beclamide, Carbamazepine, Primidonne, Sodium Valporate and Sulthiamine etc. Social aspects in detail and various basic drugs synthesis will be discussed during paper presentation.

2. Social Aspects

Epilepsy is a neurological disorder and patient has full right to live comfortable life without any cultural and social stigma.

The drugs which are used in the treatment of Epilepsy are known as Anticonvulsant
Drugs. It is due to the disorder of central nervous system. Basic components are Barbiturates, Hydantoins and official drugs are Beclamide, Carbamazepine, Primidonne, Sodium Valporate and Sulthiamine etc. Social aspects in detail and various basic drugs synthesis will be discussed during paper presentation.

Epilepsy is one of the oldest documented diseases affecting mankind. It was simply explained as the result of a struggle between good and evil faces. People used magical remedies for their treatment. In Epilepsy patients all of a sudden the body starts jerking and patient starts frothing. But very soon the movements stop and the patients recover consciousness after a while. The patient is told that it was a trance and thanks to timely placement of footwear on his nose that the evil spirit was gone away and his life was saved.

A seizure may be a symptom of epilepsy but not all seizures are caused by epilepsy. A seizure not related to epilepsy, can be caused by a reaction to drug, high fever, severe head injury and heart condition when brain cells are not working properly. A person's consciousness, movement or action may be attained for a short duration. Physical changes are called epileptecial seizures.Epilepsy is therefore sometimes called seizure disorder. It affects pupil in all nations and of all races. Epileptic seizure can be sparked by variety of stimuli including lights that flash at a certain speed, the flicker of television screen or T.V. i.e., a sudden loud noise or repetitive sound, alcohol consumption, cigarette smoking stress, headache, menstruation, lack of sleep and idiopathic.

2. Epileptical Seizures

This can be classified into generalized and partial.

2.1. Generalized Seizures: absence (petit mal), tonniclonic (grand mal) and Mayoclonic Seizures.

2.2. Partial Seizures: (focal local) including motor, sensory or autonomic symptoms and complex symptoms i.e., Psycomotor Seizures.

Improper clinical advice and treatment is the major reason involved in psycho social issues. There is several issues which prevent patients to reach the doctors. Lack of awareness, limited means, poor priority for the health issues are some of the reasons which prevent persons to take proper treatment. About 40 million people worldwide are suffering from epilepsy. Fear, misunderstanding and the resulting social stigma and used discrimination surroundings epilepsy often force pupils with disorder into the shadows. The social effects may vary from country to country and depends on culture, but it is clear that around all the world, social consequences of the epilepsy are often much difficult to overcome than seizures themselves.

3. Anticonvulsant Drug

The drugs which are used for the treatment of various types of epilepsy are known as Anticonvulsant drugs

3.1. Synthesis of various Anticonvulsant Drugs

![Methyl phenobarbitone](image1)

![Phenobarbitone](image2)
Benzaldehyde + Benzaldehyde

\[
\overset{\text{NaCN}}{\overset{\text{Benzoin}}{\text{condensation}}}
\]

\[
\overset{\text{HNO}_3}{\text{or CuSO}_4}\]

Benzil

\[
\overset{\text{C}_2\text{H}_5\text{Na}}{\text{Benzilic acid ester}}
\]

\[
\overset{\text{C}_2\text{H}_5\text{Na}}{\text{Phenytoin keto form}}
\]

Methyl-1-hydroxy-1-methyl propionate + Urea → Troxidone
Mesuximide

Acetone

CH₃
\[ \text{CH₃} \quad \text{HCN} \quad \text{CH₃} \quad \text{OH} \quad \text{H₂SO₄} \quad \text{CH₃} \quad \text{OH} \quad \text{COOC₂H₅} \quad \text{C₂H₅OH} \quad \text{C₂H₅ONa} \quad \text{Sodium ethoxide} \]

\[ \text{C₂H₅OH} \quad + \quad \text{O} \equiv \text{C(NH₂)} \quad \text{Urea} \]

5,5-Dimethyloxazolidinedione-2,4-dione

Trimethadione

Mesuximide

\[ \text{CH₃} \quad \text{C} \quad \text{CH₂COOH} \quad + \quad \text{CH₃NH₂} \quad \text{Methyl amine} \]

2-Methyl-2-phenyl Succinic acid

Mesuximide
4. Conclusion

This disease is related to frequently appearance of seizures in which abnormal body working due to disturbance in consciousness it may be possible in seizures due to abnormal and huge amount secretion in the electroencephalogram (EEG). Epilepsy is a neurological disorder and patient
has full right to live comfortable life without any cultural and social stigma.

The drugs which are used in the treatment of Epilepsy are known as Anticonvulsant Primidonne, Sodium Valporate and Sulthiamine etc. Basic components are Barbiturates, Hydantoins and official drugs are Beclamide, Carbamazepine Drugs. It is due to the disorder of central nervous system.

References

5. Medical Historical Survey on Epilepsy and older concepts about the therapy of Epilepsy, Psychiatry Neurol Med Psychol (Leipz), Sept 1972, 24 (9): 508 c15.
15. India Together -Epilepsy patients are Fit to Drive -11 February, 2008.
17. Kumar Navneet, 2005, Epilepsy ICP -Academic Wing of Association of Physicians of India; 201-205.