The preventable causes of epilepsy such as poor perinatal care, infectious diseases, parasitic infestations, head trauma and consanguineous marriages.

Epilepsy impacts most severely on the period of greatest development, namely childhood, adolescence and young adulthood. Yet it is during this stage that disability and mortality are greater because epilepsy is inadequately treated.

The majority of people with epilepsy are treated inadequately and inappropriately because of ignorance, discrimination and limited health resources.

The following declaration:

- Raise public awareness of epilepsy by proclaiming a National Epilepsy Day, and supporting the establishment of a World Epilepsy Day.
- Encourage the public and private sectors, as well as relevant Non-Governmental Organizations to actively support local activities related to the Global Campaign Against Epilepsy.
- Promote social integration and eliminate discrimination against people with epilepsy in all spheres of life, especially school, work and marriage.
- Promote and support research in Asia and Oceania into the basic processes, clinical aspects, and psycho-social consequences of epilepsy.
- Educate and train health care and other relevant professionals about epilepsy, its prevention and its treatment.
- Educate people with epilepsy, their families and the general public about epilepsy as a widespread, non-communicable and treatable chronic brain disorder.
- Ensure that the education system, health services, general and disability Insurance schemes, and the law all provide adequate support to people with epilepsy.
- Encourage cooperation between medical, educational and other relevant agencies to improve the quality of life of people with epilepsy, and throw off the negative stigma attached to the disorder.
- Recognize the role of the media in shaping public opinion and support the role of the media in reducing public prejudice, discrimination, ignorance and misunderstanding concerning epilepsy. As part of this drive, we are continuing the series on the ABC of epilepsy and issues touching on epilepsy. The letters D, E, F and G are addressed in this issue. As epilepsy in children is not uncommon, we find it important to provide with some more general background information on childhood epilepsy in this issue.

We also present you with original research concerning the public attitudes/behavioural epidemic in Singapore. The information was gathered last year in Singapore and shows that we need to do more public education on epilepsy. For this reason the SEF is organizing a public forum on epilepsy, Saturday the 17th of February. The meeting takes place in the Ballroom of the Mandarin Hotel and starts at 13.15. A timetable can be found on the back page.

We always emphasize that this series is designed to be interactive with you, so we are waiting to hear your thoughts and ideas, just send a letter or email to the SEF office. Pertinent correspondence will be published in the newsletter for all to participate in.

Please enjoy the issue and pass it on to someone who might benefit from it!
ABC of Epilepsy

Deja Vu

During the first two years of life, children who have not had fits may develop, but often they go away on their own. Many other children’s seizures either go away in a few months, or last a few years. Sometimes they only happen once every few years. If they do not have more than one fit, doctors may watch them for some time to see if they will grow out of it. They should be examined annually.

Dizepam

The name of the medicine contained in Valium® and Serax®. It is used for the acute treatment of a seizure and sodium antagonists and other substances that interact with the neurotransmitter γ-aminobutyric acid (GABA). It means that it is a medicine that helps to slow the brain down and stop it from becoming too active.

Driving

In Singapore, under the current traffic Act, people with epilepsy are prohibited from driving any type of vehicle regardless of whether they have been seizure free for 2 or more years. People with epilepsy are advised to inform the authorities should they develop epilepsy subsequently. As there are no lasting diagnostic requirements for doctors to certify the fitness to drive, it is up to the patient’s own discretion to decide whether they can drive. The Singapore Medical Council has ruled that epilepsy is not a disease of the mind and is no breach of medical confidentiality. If doctors notify the authorities of patients’ driving a vehicle, this will not be a delay in driving.

Drop attacks

The name drop attacks describe the phenomenon of a person suddenly dropping to the ground, losing consciousness and remaining unconscious for a few seconds to a few minutes. The person may appear dead or be confused, and remains unconscious for a few seconds to a few minutes. This is the type of a seizure a patient is in a coma or a vegetative state.

EEG (Electroencephalogram)

The electrical activity of the brain can be detected using a machine, which greatly amplifies the electrical activity observed in the brain. It is used to look for abnormalities in the brain activity, which may be indicative of a neurological or psychiatric problem. If necessary, the electrodes can be placed through the head to get a more accurate picture of the abnormality. However, not too many are done.

Epilepsy

The name given to a brain disorder where there are repeated epileptic seizures. Epileptic seizures are divided into two types: generalized and partial and depend on how widespread the abnormality is. It is estimated that 1 in 100 hundred of the population suffer from some form of epilepsy. The cause of epilepsy varies considerably with the most common cause being “familial” (meaning someone in the family has it). It may develop due to abnormalities in the brain, damage or injury to the head and brain. Other factors may include: physical factors such as being born prematurely, using drugs or alcohol, or having a low birth weight.

The type of seizures can vary from simple to complex and are classified into different categories. The different types of seizures include:

Focal Seizures

Focal seizures are due to part of the brain suddenly becoming overactive. Depending on where it is, the person may experience unpleasant sensations or abnormalities of the arm or leg or feel strange, or there may be loss of consciousness, just like generalized seizures. There are different types of focal seizures, tonic, atonic, and myoclonic seizures.

Gabapentin

This is the name of a more recently introduced antiepileptic medicine. The trade name is Neurontin®.

Generalized Seizures

The whole of the brain is affected in these types of seizures. Generalized seizures are quite common in children, with 3-5% having tonic-clonic convulsions. They have a slightly lower incidence in adults, and 1-3% to 1% having tonic-clonic activity as a tendency. The most well known of these is the grand mal seizure. Although studies in the past have indicated that approximately 20% of the population would have had a tonic-clonic seizure at some point in their lives, more recent studies have shown that this is not the case.

Grand Mal Seizures

These are described in the generalized seizure induced from the focal lateralized and “myoclonic” type. This generalization can be a result of the type of a seizure a person is undergoing. These may be due to a structural defect in the brain, underlying brain, the patient is undergoing a tonic-clonic seizure, or after a stroke or brain injury.

Glimpse into Research

As an Andrew Wong-Young, Dr. 8th to 10th Department of Neurology, Singapore General Hospital

Epilepsy is a lifelong condition for many patients. We rely on the understanding of the condition to help us manage and prevent it. It is important that we understand the cause and treatment of epilepsy so that we can improve the quality of life for our patients. It is important to understand that patients with epilepsy can lead normal lives and are still able to have a full life.

“The First Aid of Seizures”

It is a common misconception that all seizures are dangerous and that all seizures last for a long time. However, there are also different types of seizures and the length of time they last can vary from 20 seconds to 1 hour. In short, there are mild seizures that last for 20 seconds and there are severe seizures that last for 1 hour. Seizures are also different in their severity and are not all as dangerous as they seem. For example, some seizures only last for 2 seconds and are called myoclonic seizures. These seizures are not as dangerous as they seem and do not cause any permanent damage.

First Aid of Seizures

If you are with someone who has had a seizure, you should immediately call for medical help. Do not try to stop the person from having a seizure as it is unwise and can be dangerous. It is also important to make sure that the person is in a safe place and that no harm is caused to them. It is also important to make sure that the person is not hurt in any way.

1. Keep the person on side in the recovery position
2. Keep the airway clear. Remove loose clothing and airways that may have been damaged during the seizure.
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Public awareness, attitudes and understanding toward epilepsy among Singaporean Chinese

Dr. Ong Hian Tat, Consultant & Clinical Lecturer, Division of Neurology, Department of Paediatrics, National University Hospital

In our survey, we found that 70% of patients and 77% of parents with epilepsy have knowledge of something about epilepsy. The proportion of Singaporean & Malaysian Chinese who would do so should seizures not interfere with the applied job. Sixty-eight percent of patients associated an epileptic attack with a loss of consciousness, 55% with tonic-clonic activity, 38% with arm or leg or face often accompany motor seizures.

In helping the doctor decide on what type of epilepsy the patient has, 65% of epilepsy patients would do so should seizures not interfere with the applied job. Sixty-eight percent of patients associated an epileptic attack with a loss of consciousness, 55% with tonic-clonic activity, 38% with arm or leg or face often accompany motor seizures.

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