

MYTHS AND FACTS

-Dr Navneet Kumar

1. Our Brain

Epilepsy is a word of the Greek language. It means a condition in which a man feels absolutely shattered and bashed up.

Our brain is a complicated and sensitive organ. All our voluntary and involuntary functions are controlled by it. It controls our heart and lungs too. All the cells of our brain function in tandem and remain in contact within themselves through the electrical pulses. In every cell resides a typical electrical charge. The way we can record the electrical charge of heart through ECG, we can record the electrical charge through EEG. Sometimes, the brain-cells produce unusual amount of electricity and a person could have a fit. When such fit occurs frequently, it is known as Epilepsy.

2. What is Fit or Seizure and Epilepsy ?

Fit-Fit is known as sudden unconsciousness

Seizure - A special type of fit is known as Seizure. The patient suddenly gets unconscious and his limbs get cramped. (Long ago people believed in superstition that, some unknown power seized that body of man; hence the word 'seizure'. However, recent studies have ruled out such superstitions.)

3. Some Useful Information and Facts

- i. At least one percent people have seizure once in their life however, they don't need medication. Therefore, before beginning the treatment of Epilepsy, it is necessary to take care of other related ailments. Once medication commences, no doctor would ever have courage to discontinue it. It is to be remembered that, presently, at least 10% people are taking medicines for Epilepsy, without being afflicted by it.
- ii. In the world, about 1-4% people are suffering with Epilepsy. In India, there are about 1 crore patients suffering with Epilepsy.
- iii. 70% to 80% patients can get fully cured of this disease.
- iv. About 10%-20% patients cannot get fully cured of this illness. Those patients who suffer with Epilepsy in infancy or those who have long history of Epilepsy may require life long treatment.
- v. The patients of Epilepsy can live normally, can marry and a mother can give birth to a healthy child. The medicines are not stopped during pregnancy. It is in your interest to follow the treatment under the care of a neurologist.

4. Diseases Similar to Epilepsy

Having known about Epilepsy, it is imperative to know more about other fits of different types which mimic Epilepsy such as vasovagal attack & hysteria etc. It is necessary to ascertain whether the patient is suffering from Epilepsy or not. The other attacks due to general weakness (Vasovagal) or due to Psychological disturbance(Hysteria) etc. may be cured without the help of medicines also. Therefore, unnecessary treatment should be avoided.

- i. **Fall due to low blood flow (Syncopal Attack)**
Standing in the sunlight for prolonged hours, having seen a frightful scene or bleeding, some people faint and fall down and within a short while they become absolutely normal. This could be a syncopal attack. It is not Epilepsy.
- ii. **Febrile Fits**
Between the age of one to six years, children are afflicted by such attacks during fever. You should consult a paediatrician or neurophysician and acquire information about it. By

reducing the intensity of fever an attack can be prevented. The medicines for Epilepsy, are generally not required.

iii. **The condition of Low Blood pressure (Postural Hypotension)**

Among elderly patients, sudden standing or getting-up may cause transient lowering of the blood pressure and the person may fall to the ground. Such a sudden fall is some times, mistaken for Epileptic fall. Antiepileptic drugs should not be prescribed in such situations.

iv. **Hysterical Fit**

Often patients are found to be afflicted by attacks of hysteria. Main symptoms are sudden fall, froth outpouring from mouth, twitching of limbs, etc. It is necessary to recognise such attacks very carefully. such attacks could be treated by a competent psychiatrist, since hysteria is caused by mental tension and perplexity.

Having understood about various forms of attacks, it is now easier to understand about Epilepsy. Should you have any doubts please read the previous pages once again and then only proceed to read further.

5. Types of Epilepsy

Seizures of various types.

i. **One sided Epilepsy (Focal Fits)**

Excessive discharge of electrical discharge remains limited to only one part of the brain. Twitching of one part of the body or twitching of limbs takes place, which subsides after few minutes.

ii. **Whole body Epilepsy (Generalised Fits)**

When excessive discharge of electricity affects the whole brain; it is called as generalised fits. During childhood, absence epilepsy may occur. In this condition the child would stare ahead for a duration of few seconds or stops speaking for a while. In such condition twitching or trembling does not take place.

Sometimes, the generalised fit starts with a shriek with loss of consciousness & the patient may fall & get-injured. Jaws get clenched and body gets spasm. This may be followed by jerks in the body, with frothing from the mouth and sometimes there may be tongue bite. Often, urination takes place involuntarily in the clothes.

Generally, a seizure subsides with few minutes and the body gets slackened. The patient goes to sleep. On regaining consciousness, he may get headache and vomiting.

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6. Causes of Epilepsy

The causes of Epilepsy cannot be ascertained in about 50% cases. However, following are the common causes of Epilepsy-

- i. Parasitic infection-Neurocysticercosis
- ii. Brain tuberculosis
- iii. Head injuries
- iv. Brain tumors
- v. Paucity of sugar in blood, use of intoxicants, insomnia, glaring lights & watching T.V. for long hours.

Neurocysticercosis

Normally, human intestine is free of any worm infestation. When a man eats partially cooked pig (pork) meat with larva of tapeworm (cysticercus), sometimes this infected larva passes through stomach and develop into large worm which is 2 to 6 metre long and lives in human intestine. It is flat and tape like, hence the name.

In general, developing countries have poor sewage system. Vegetables and fruits are usually grown in such infected soil. Whenever we eat such vegetables and fruits without proper washing these eggs of tapeworm reach our stomach. Then the embryo from the egg (opchosphice) is released in intestine due to hatching. It penetrates the intestinal wall and reaches different body parts including brain by blood vessels. In brain, it causes neurocysticercosis.

Important points

- i. Human tape worms in the intestine develop by eating infected partially cooked pork meat which contains larva. This larva doesn't penetrate the intestine but develops into a tape worm in intestine.
- ii. Neurocysticercosis develops usually not by eating pork but by infection of unwashed raw salads and vegetables grown with infected soils. The egg readily pierces the intestine wall due to certain cutters present inside and reaches body tissue though blood circulation.
- iii. Patients suffering from neurocysticercosis usually don't have tapeworm in their gut.
- iv. Elimination of pigs from human dwelling areas and proper hygiene in food habits are required to control and eliminate cystecercosis. This will also bring down the incidence of Epilepsy.

7. Various tests related with Epilepsy

The following tests are carried out in the affliction of Epilepsy.

E.E.G. This test consists of a graphical representation of electrical pulses within the brain.

Video E.E.G. The information about Epilepsy is obtained by video monitoring.

CAT Scan This is a computerised x-ray of various sections of the brain. This is also known as C.T. Scan, which is an important and desirable test.

MRI Scan It is a more advanced test than CT scans. It is available in some large cities of India. In this method of test, the pictures of the brain are taken using magnetic waves.

SPECT In future SPECT will play an important role in diagnosis of epilepsy.

8. Treatment of Epilepsy

Before starting the treatment of Epilepsy, it is necessary to determine whether the affliction is Epilepsy or not. Later on the basis of the type of Epilepsy, age of the patient and certain other factors, medicines are prescribed according to the patient's individual needs. About 75% patients get cured if the medicines are taken regularly for a period of three to five years.

Some of the important conventional medicines are as follows:

Phenytoin, Sodium Valproate, Phenobarbitone, Carbamazepine

Some newer medicines are now also available such as

Clonazepam, Clobazam, Lamotrigine, Gabapentin.

These are used in resistant epilepsies which are not be controlled by conventional drugs.

9. What to do if a Fit Occurs?

Some people get a prior warning of an attack of Epilepsy. Most of the time, an attack of epilepsy subsides within 2-3 minutes. During this period, the tongue may get bitten and urine might get discharged in the clothes.

In such a situation: Let the patient lie sideways and loosen up his clothes. In case of vomiting patient is made to lie sideways, otherwise he may aspirate the vomit into his windpipe

Do not try to open the clenched jaws, otherwise your finger may get bitten. Do not insert things like spoon etc. or else, the teeth may get broken.

When the attack subsides, do not insert anything in the mouth of the patient, till he/she gets full recovered. During the occurrence of the attack, do not try to prevent the trembling of limbs. It may cause the fracture of bones.

However if the attacks persist, or patient is injured, get him/her admitted in the hospital immediately.

In the hospital, patient may require, iv diazepam, phenytoin, lorazepam or rectal diazepam.

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10. Precautions During Treatment

- Remember the names of your medicines
- Take your medicines at regular hours. In case of any side effects unless the circumstances demand, do not change the brand of the medicines.
- The treatment of Epilepsy continues for 3 to 5 years. In certain extraordinary circumstances this treatment could last for a longer period. In case you have forgotten to take a dose of medication once, an attack may recur. In such a case the treatment may have to recommence for a period of 3 to 5 years or more from that day. Therefore, do not forget to take medicines regularly.
- It is necessary for you to have sleep for at least 8 hours. Sleep deprivation and prolonged TV watching can precipitate a distinct type of epilepsy.
- Unless the circumstances demand, do not change the brand of the medicines.
- In case of fever or other medical illness, consult your doctor and take appropriate treatment, however, do not stop the medicines of Epilepsy, without consulting your neurophysician.
- During pregnancy, the medicines should continue. Certain medicines might prove to be harmful during such period, although these should be used under the supervision of a qualified neurophysician.
- Should you have to go out of your city, do not forget to take your medicine box with you. Always inform your family members about the medicines & doses which you are taking.
- Please avoid the advice of your well-wishers to try herbal medicines or to consult unqualified doctors. Please note that proper scientific treatment of Epilepsy is only possible under the able guidance of your neurophysician.
- High fever may cause seizure among the children. In case of fever administer proper treatment and reduce fever by applying cold pads.

11. Epilepsy and Marriage

Social taboos cause hindrances in the way of marriage of a patient, which is why relatives of marrying girl try to hide the disease. This may cause many difficulties after the marriage. It is better to consult your doctor before the marriage.

12. Marriage and Pregnancy

It is better to have pregnancy only after the completion of the course of the medicines. If it is not possible to do so, even during the pregnancy, medication could be continued. It is necessary to know if the medication for Epilepsy could have any severe or mild adverse effect to an unborn child. However, such effect is negligible in comparison with the effects of epilepsy attack in abstaining from medication.

13. Epilepsy and Driving

Driving should be permitted at least 6 months after seizure free period. However it may not be safe to drive in certain situations. In other, countries, traffic rules are very strict.

14. Social Rehabilitation

Social rehabilitation of epilepsy patients is very important such a patient has to face several obstacles and harassment in his job and in the family even after the control of fits. It is our duty to eradicate myths and educate more and more persons in the society.

15. Conclusion

Now-a-days about 70-80% patients of Epilepsy can be cured within three to five years of treatment. It is your solemn duty to eradicate the age old legends and superstitions associated with Epilepsy.