EPILEPSY SYNDROMES OF CHILDHOOD & ADOLESCENCE

JUVENILE MYOCLOCNIC EPILEPSY (JME)

This is a fairly common type of epilepsy that often develops just before or at puberty. It can run in families and is easily controlled by anti-epileptic drugs. More girls are usually affected by JME than boys.

SYMPTOMS

Seizures can develop between the ages of 8 and 20, but usually they start between 11 and 16 years.

Three different types of seizure can occur in this sort of epilepsy:

1. Generalised convulsive seizures (GTCS) which usually happen in the morning, within one or two hours of waking. This type of seizure is more likely to happen if the person has gone to bed late the night before, or has woken up earlier than usual. Some patients, less than 10% never develop GTCS.

2. Myoclonic seizures which cause the person to have sudden jerks of the muscles, either in the arms, legs, face or in the whole body. These seizures usually happen soon after waking up and may be seen when getting dressed or having breakfast. Often the person may simply appear shaky or clumsy and may drop things. Very often children do not know what these jerks are and do not tell anyone about them. It is important to bear in mind that in many children and young people with this condition, early morning shakiness has been present for a long time before they have the major seizure which brings their condition to light. Often when asked about any past medical history, the early morning shakiness or jumpiness is not mentioned as it is simply regarded as part and parcel of the child’s usual behaviour. However, it is important that such information should be passed on to the doctor or consultant. Myoclonic seizures can also occur in the evenings if the person is tired.

3. Absence seizures during which the child or young person seems to go blank for a brief period. These episodes can happen at any time of the day, but like the other two seizure types they frequently occur in the morning.

With JME it is also possible to have photosensitive seizures (seizures triggered by flashing or flickering lights) which may happen whilst a computer or video-game. This is particularly the case if the child is tired, or is sitting too close to the computer or television screen, or if the TV set is not functioning properly, or if there are fast moving objects on the computer screen and there is a lot of contrast between the background and the colour of the objects. This type of seizure may occur in over half of all the children who have juvenile myoclonic epilepsy.

DIAGNOSIS

A full accurate history is very important in diagnosing this type of epilepsy. it is important to tell the doctor or nurse about the myoclonic or “jerk” seizures. An EEG (electroencephalogram) test which records the ongoing electrical activity in the brain will be done and this may help to confirm the diagnosis. During this test a bright light will be flashed into the child’s eyes (this is called photic stimulation), to see if the child has photosensitivity.
TREATMENT

Children and young people with juvenile myoclonic epilepsy almost always have all their seizures controlled by Sodium Valproate (Epilim). Sometimes Lamotrigine (Lamictal) may be used especially for women of child bearing age. It will probably be necessary for them to stay on treatment for the rest of their lives for if treatment is stopped the seizures will come back again. Since the jerks and the seizures are particularly likely to happen to a person who does not get enough sleep or takes alcohol. It is really important to maintain regular sleeping habits and avoid alcohol.

For those people who have photosensitive seizures it important that in addition to taking their medication regularly they also take precautions to avoid seizures being triggered by flashing/flickering lights.

Precautions that can be taken:

- Sit at least 6 feet from the television screen
- Do not try to adjust the television if it starts to flicker or behave in a strange manner in any other way.
- Always have the lights on in the room about the TV or computer so that the screen is not viewed in dark surroundings.
- As soon as any flashing starts, either on the television or on a computer screen, or if out and near neon lights, sunlight flashing on water, lights flashing between trees when travelling fast in a car or anything else which could cause a flashing sensation, cover one eye with one of your hands. (For most people who are sensitive to flashing lights it is necessary for both eyes to see the lights. If you cut the flashing to one eye it is probable that you will not have a seizure whereas using both eyes will make you more vulnerable).
- Take frequent breaks from watching TV or playing computer games.
- Avoid watching TV or playing computer games when tired.
- For some people however the flashing lights bring on a seizure even if all the above precautions are taken.

PROGNOSIS

This type of epilepsy usually continues through adolescence into adult life. However, if medication is taken as prescribed, seizures (including the photosensitive seizures) are easily controlled in almost everyone with JME. In most cases these medicines will need to be taken life-long otherwise seizures will return.

The majority of children and young people who have juvenile myoclonic epilepsy are of average intelligence and though a few do have difficulties at school the majority cope well with their school work.