Caritas Malta Epilepsy Association – Ten Years of Work
The Social Impact of Epilepsy

18th February 2006

Report of Workshop A: What is new in epilepsy
Facilitator: Prof. Ley Sander
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At the beginning of this workshop, Prof. Ley Sander gave an overview of what is done at the Epilepsy Clinic in the U.K. where he works. He said that an average of 100 people are operated on and the ages of the patients varies from very young to elderly people. To obtain optimal results and to stifle the overall effects of epilepsy, the best years to carry out this procedure is during the pediatric age however a person can undergo this surgery at any age and the risk factors are not increased. He said that for a clinic to be cost effective there have to be at least 25 operations yearly in an area population of 10,000,000 people.

He explained that this procedure is curative surgery which means that when the operation is successful the patient is cured of epileptic seizures.

There are obviously risks to every operation and when it comes to operating a person with epilepsy and the major risks are from:

- Opening the brain because there is risk of infection
- The risk associated with general anesthetic
- There is a 5% chance that something might go wrong with 1% being a very serious mishap which cannot be reversed.

Prof. Sanders also stated that this type of surgery is not a complicated procedure and it usually takes 6 hours to complete.

After this introduction, members in the workshop asked various question regarding a number of different topics:

Explaining the difference between partial and generalized seizures, Prof. Leyson said that Partial seizures originate in a particular area in one part of the brain whereas in generalized seizures both parts of the brain are effected.

Asked how a person is selected as a candidate, Prof Leyson said that there are a number of criteria namely that:

The general principal for surgery is that the seizures have to come from a discreet area of the brain, and after surgery the patient will be able to live without that area which will be either taken out or eliminated. Usually the area is in the temporal lobe which is a very accessible area to the surgeon. Therefore:

- The person has to have partial seizures which are very stereotypical in form. These give a certainty that the seizures are coming from the same part of the brain.
- The patient is not drug controlled
- The patient has more than 1 – 2 seizures a month
- Through brain scanning, MRI and Epilepsy Scanners
- After finding a lesion the surgeon then has to see if in fact all the seizures are coming from that part of the brain and if that area is accessible to the surgeon who will be operating.
- Of those screened for surgery only 1% have the required criteria to be operated on.

On asked to comment about the VNS – **Vagus Nerve Stimulator**, Prof Leyson explained how this devise works. He said that through electrical pulses that go through the vagus nerve, a seizure can be controlled. He also said that this procedure is only a palliative procedure and it only reduces the seizure rate by 30% to 50% only. In certain cases the rate is even lower that this figure. No one can be 100% cured with VNS.

Photo sensitive Epilepsy: This usually happens with generalized seizures. It is quite easy to treat and many times patients grow out of it. However Prof Leyson said that progressive photo sensitive epilepsy is not easy to treat.

Ketogenic Diet: This diet works in very small children and does not work after puberty. 20 % – 30% of those children who are not controlled by drugs are successful with the ketogenic diet however one disadvantage of this diet is that it is not a very sociable good diet and may kids do not really stand it.

Learning Difficulties: Frequent dominant temporal lobe seizures will definitely have an impact on the learning process of the patient. This effects the cognitive function because much time is lost where the patient is not aware of what is going on around him especially if the seizures occur very frequently. Drug effects also have an impact on alertness and memory which are key factors for learning.

Drugs: The aim should be to have patients controlled on one drug. If one particular drug is not working it should be changed to another however sometimes while phasing out a drug and introducing another a control is achieved and this results in a poly drug intake.

Sudep: Sudden Unexplained Death In Epilepsy. Prof. Leyson explained that this effects people who have severe chronic epilepsy. During seizures, if Opioid is released in access, this will stop breathing and hence death. Convulsive attacks seem to be the major risk factors for this to happen.

Asked about whether or not it is true that a person can actually **swallow the tongue** during a seizure, it was explained that this is ‘a legend’ and no one has been reported to have gone through this ordeal through epilepsy. The biting of the tongue usually occurs

earlier on in the attack and so there is nothing anyone can do to prevent this from happening. It is therefore to no avail to put anything in the mouth – moreover one can do more harm than good by doing so. This is highly un recommendable

Finally someone asked about **Midozolan** which is a nasal aerosol for Status Epilepticus which could be used instead of suppositories.

The problem with this is that there is no patent for it and no pharmaceutical company would want to spend millions to manufacture it. Yet what drug companies are doing is marketing the delivery system i.e. the aerosol drug administrator. A company from Germany and Israel are producing Midozalan via aerosol and this is to be made available in around 2 years time. This will be an alternative to Diazepan rectal for status epilepticus.