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Workshop A - "How to recognise epilepsy" was chaired by Prof. Neville & Sr. Mangion

We were asked to give our reaction to morning sessions so basically the workshop was a series of Questions and answers.

One major problem discussed was that all speakers mentioned **diagnosing epilepsy later on in life** around the age of 16, but when looking back a child could have started suffering from epilepsy earlier , so what should one look out for. Prof. Neville stated that it is uncommon to miss obvious epilepsy such as benign rholandic. Points made were

- Learning or behavioural difficulties could be a risk factor for developing epilepsy, they are also indicative of not having good control of the epilepsy.
- Parents may know that their child is having difficulty at school and so may wish to investigate further.
- In a child who normally does very well at school who then suddenly acts very strange and shows ADHD tendencies together with educational problems
- Changes in character is probably the best single factor for diagnosing epilepsy.

Having said that there is no evidence epilepsy is the sole cause of these problems.

Another curious point was regarding **genetics**. The question was in the case of a parent being epileptic what is the chance that the child is epileptic too? The risk is doubled or trebled if a parent has epilepsy which means a chance of 4 per 1000 rather than 2 per 1000. It is a known fact in the case of febrile seizures that this figure is higher.

Another question was what the **difference** is between having a seizure and being diagnosed with epilepsy. Prof. Neville said one seizure does not mean you have epilepsy but recurrent seizures are indicative of epilepsy. For active epilepsy, the patient must suffer at least one seizure per year. One could state the following

- One seizure – Not epileptic
- Febrile Seizure - Not epileptic
- More than one seizure - Epileptic
- Active Epilepsy - More than one a year

Another point of discussion was **pseudo seizures**. They are psychologically induced seizures which may resemble epileptic seizures and where the patient has their first fit around the age of 45.

- The onset of epilepsy can take place at any point throughout ones life but according to Prof. Neville there are two peaks namely in young children and the 45-50 adult age group.
- The older age group seems to be easier to treat since a high proportion of the seizures are not proper epileptic seizures but hysterical seizures.
- With regards to the younger age group, there are several types most of them being benign epilepsies.
- Approx 75% of the cases in children can be diagnosed correctly.

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- One particular type occurs in newborns which then disappear within a week or so.
- A characteristic of a benign type is that a patient has a few attacks in a particular age time. It was also pointed out that benign rholandic epilepsy does stop.

Another point discussed was the possible **connection between autism and epilepsy**. The question was 'can epilepsy lead to autism and vice-versa'?.

There are several relationships between epilepsy and autism. The rate of autism in a child with infantile spasms is 80%.

In a group of children undergoing epilepsy surgery the rate of autism is 20%.
There are two main groups of autistic children

1. Primary autism-were the child behaves in a non social manner from birth
2. In the second group the child is normal in the first year but then shows signs of regression

Both groups show a gradual increase in the rate of epilepsy. Therefore there is also an increased rate of epilepsy in autism.
The chance of an autistic person developing epilepsy goes on till the patient is about 40/50 years of age

Triggering factors in epilepsy.The most common are disturbance in normal routine particularly

- Sleep
- meal times
- missing medication.
- Tissue damage or infection
- Epilepsy seems to be vitamin B6 dependant
- Too low a blood sugar could cause epilepsy

In fact an epileptic person has to be very careful to avoid changes in their routine. However, Prof. Neville stressed on the importance for parents to allow their child to lead a fun life, not to overprotect them and avoid excess anxiety.

Another question was whether it was easy to recognize the **difference between absence seizure and day dreaming.**
The main difference is in the fact that an absence seizure is a clear interruption of activity where the patient just freezes and is not somebody "just gazing out of the window" who doesn't answer when spoken to. Absence seizures tend to be quite frequent.

Another interesting topic was epilepsy could lead to **communication disorders**. In Landeu Keffner syndrome the patients suffer from partial seizures and could behave as if they are deaf. Eventually they could lose all their speech. Some have autistic features as well as language problems. A sleep EEG on these patients shows continuous activity. The best form of treatment is with steroids which are very effective in stopping seizures. A high dose is given for 6 weeks and this is tailed down for another 6 weeks. If this dosage regimen does not work weekly high dozes are given for a longer period of time. As a result of this treatment one third of patients show complete recovery, whereas two thirds do not do as well.

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Another point was epilepsy **surgery**. Where and when can surgery be performed?
It is performed in order to stop the spreading of epileptic activity form a particular area to the rest of the brain.
This is done by disconnecting half of the hemisphere or removing the small affected area.
This is used in patients were treatment does not work and where the physician can identify the specific area causing the epilepsy.
For hemisphere disconnection one has to identify a dense weakness on one side. The success rate for this is 50% seizure freedom
In the case of chronic inflammation on one side the success rate is 90%
In children where the condition had been from before birth the success rate is 80%

Are **febrile convulsions** indicative of epilepsy later on in life?
Studies suggest that there is a maximum risk later in life of 5% in such cases, predominantly in those who have learning difficulties. In young adults having surgery 40 to 50% of these had prolonged febrile seizures when they were younger.

In it was stated that 60% of epilepsy starts in childhood between the age of 2 to 3, this peaks again in adolescence and later rises again in later adults.