Frontal Lobe Epilepsy

What is frontal lobe epilepsy?

The frontal lobe is related to personality, memory, anxiety, alertness and awareness. In general, the seizures arising in either frontal lobe, begin suddenly, are brief, and end suddenly with very little confusion or tiredness afterward. In some people frontal lobe seizures occur only in sleep.

Frontal lobe epilepsies are characterised by focal (partial), secondarily generalised seizures or combinations of these. The nature (type) of seizures seen depends on the area in the frontal lobes where the seizures originate.

People with frontal lobe epilepsy report feelings of fear, dread, and terror as well as feelings of euphoria and excitement. Somatosensory sensations are also frequently present. These include feelings of oppression, shivering, and a sensation of body heat. Autonomic symptoms such as palpitations, choking, pallor, flushing, salivation and migraine-like sensations are also common.

Occasionally bizarre behaviour and complex motor activities can sometimes be observed. These include using obscenities, jumping or pedaling movements, agitation of the upper limbs as if struggling, or rubbing the genitals.

People with frontal lobe seizures may have problems with working independently, particularly tasks which follow a sequence, where one answer is a base to the next step. There may be disturbances in the smooth flow of spontaneous speech, where there are problems with the left frontal lobe.

How common is it?

Frontal lobe epilepsy is a common cause of focal seizures. However, it is less common than temporal lobe epilepsy.

Epilepsy and frontal lobe seizures

- Seizures can be focal (partial), with or without secondary generalisation.
- Focal (partial) seizures that begin in the frontal lobe are briefer, more abrupt in onset and termination, and occur with greater frequency than focal (partial) temporal lobe seizures that begin in the temporal lobe.
Frontal lobe seizures are frequent; it is not uncommon to have up to 50 per day.
The seizures often occur at night.
Vocalisations or speech arrest can occur.
Secondary generalisation is more frequent in frontal lobe seizures than in temporal lobe.
The focal seizures are very brief and there is rapid generalisation to tonic clonic seizures.
May exhibit limb movements such as thrashing, kicking or bicycling.
Focal seizures that originate in the frontal lobe are often non specific and vague such as dizziness or weird sensation in the head.
The seizures often occur in clusters.
Focal status is relatively common.
When motor areas of the frontal lobe are affected, abnormal movements occur on the opposite side of the body.
The head and eyes may deviate to one side at the onset of the seizure.
Atonic seizures may occur when there is a rapid spread of discharge from one hemisphere to the other.

References:

Information reviewed by Dr. Dan McLaughlin, Brisbane.

Updated August 2013
To be reviewed 2015

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