



HEALTH

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# Epilepsy: 'the manifestation of something else...'

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**EPILEPSY**, a brain disorder involving recurrent seizures and changes in behaviour that come as a result of abnormal electrical discharges of brain cells, is not regarded as a disease within the medical community. It is however, seen as the manifestation of underlying issues or a symptom of another disease.

"If you have a tumour in your brain and you begin to have seizures, then you have seizures due to the tumour. So your true problem is that you have a tumour that is

causing the seizures. But you can have a stroke and the stroke is causing the seizures or you can have a brain injury like a vehicle accident and hurt your head and that's the cause of the seizure. Sometimes we don't know exactly what the cause is, but there is something underneath. Epilepsy is really the manifestation of something else, whether the underlying problem is clear to us or not," Dr Eduardo Locatelli told Tribune Health.

Dr Locatelli is a neurologist at the Florida Neuroscience Centre, and the medical director at a four-bed epilepsy monitoring unit at Holy Cross Hospital in Florida. While completing a fellowship at

George Washington University in Washington DC, Dr Locatelli was exposed to epileptic patients through an epilepsy unit at the school. Through this experience, his interest about epilepsy grew and he began to conduct research on the disorder. Now, through the recently established epilepsy monitoring unit, he hopes to help epileptic patients and the general public understand more about this disorder.

Dr Locatelli noted that there are different types of seizures. The most common is the generalized seizure. The patient gets stiff, begins to shake and goes down on the ground, many times losing urine and biting

the tongue. They usually do not remember anything for about 10 – 30 minutes as the seizure has given way to a sense of confusion.

On the other end of the spectrum, a seizure can be as simple as an arm shaking for 30 seconds. The patient is aware of the shaking, but finds that he cannot control it. There is no disorientation involved here. But Dr Locatelli noted that between this type of seizure and the generalized seizure, there are many different types of seizures – many of which may stop, or intensify, with age.

"For example, epilepsy can be very frequent in the first years of life and is very frequent at the very end of life after 65, 80 or 90 years

old. For a child who is born with a severe malformation of the brain, seizures come sometimes 10 and 20 times a day. This situation is very difficult to control. That would be considered very severe epilepsy with a high rate of mortality and mental retardation.

"But then there is somebody who has a little stroke at the age of 65, they have a seizure, get on medication and the seizures never come back. So both of these patients have epilepsy, but you can see the spectrum; one is really in bad shape and the other one is going through life with no significant challenges from that point. So there are a wide range of problems," Dr Locatelli said. Since epileptic seizures are so diverse, the stimuli that bring on a seizure are also very diverse. Some patients have warning signs, called auras, that let them know that a seizure is about to occur. Thanks to these auras, patients are able to quickly take their medication(s) (there are more than 20 types of epilepsy medication on the market now) before the seizure gets any bigger. Common auras are patients experiencing a nauseous feeling like 'butterflies in the stomach'; numbness in an arm; seeing flashing lights; experiencing strange sensations like pronounced feelings of déjà vu; smelling a scent that no one else can smell. The seizure can begin just one minute after the patient experiences an aura.

While sudden death from epilepsy is rare (Dr Locatelli puts general mortality related to epilepsy at a 1 in 100,000 chance), he noted that the mortality rate increases with the severity of the seizures. For persons who are experiencing frequent seizures, there is a 1 in 1,000 chance of mortality due to a seizure. And for severe epileptic cases where the seizures come more frequently, the mortality rate is a staggering 1 in 100.

"So the mortality is very, very important to consider. It's not that you have a seizure and you're fine. You are not only having seizures and not able to drive, but it is a condition that really can kill you. You might not wake up in the morning," he said. "The other issue is that sometimes when you have seizures you drop and you fracture limbs or clavicles (collarbones) and have dislocated shoulders, get lacerations on your face or bite your tongue really bad, which happens all the time. If you're drinking something hot and you have a seizure you can burn your skin or the smoker can burn himself or burn your house for that matter, because you don't have control of the situation. There are a lot of safety issues," he added.

When it comes to medical treatment for epilepsy, medications – whether the patient is taking one type, or a combination of several types – is usually only to control the seizures. After the patient is put on an oral medication regime, two to three years later he is re-evaluated by the neurologist to determine what the chances of the seizures returning are. Some patients may have seizures through the teenage years, but they outgrow the epilepsy, while others have one or two seizures and the brain heals overtime and medication can be stopped. "You cure yourself. You take the medication and the disease runs its course and the patient doesn't have epilepsy any longer," Dr Locatelli said.

He pointed out however, that patients with severe epilepsy may not be cured with medication alone. By monitoring the epilepsy while the patient is at a monitoring unit like the one at Holy Cross Hospital, neurologists can determine which part of the brain the seizures are originating from and then surgery can be conducted to correct the situation.

## UBS House and Doctors Hospital host blood drive



Shown are Daniel Brandenburger (left), manager, UBS House Human Resources and Dawnette Been, medical technologist, Doctors Hospital

IT began last year with a blood drive organised by Doctors Hospital's Blood Bank supervisor Zonja Bain. In an effort to raise the hospital's blood reserves, Mrs Bain teamed up with UBS House employees to increase the hospital's blood supply; eighteen units of blood were collected - life saving capabilities for more than 54 lives.

Serious about their commitment to the community, UBS House recently hosted another blood drive in collaboration with Doctors Hospital. They were able to match last year's total, donating another 18 units of blood.

The blood drive is a part of a series of initiatives designed to take the blood bank to various

corporate entities. Adequate supplies are essential so that persons in need of blood during an emergency will have an ample supply available to them for usage. It also assists in making the act of giving blood easier - "taking the mountain to Mohammed."

### Lives

The blood drive, which took Doctors Hospital to the company's office building on East Bay Street, is a substantial demonstration by UBS House staff of their continued commitment to assist with saving lives.

"We are very appreciative of the efforts of UBS who continue to be generous donors. We are pleased that they have considered, as a group, to continue to donate to the hospital's blood reserves. Their act of kindness makes it possible for persons who have to undergo emergency surgery to do so worry free because there is enough blood supply available to them. We wish to thank them all on behalf of the persons who will benefit from their donations," Mrs Bain said.

• If you are interested in organising a blood drive for your company, you may contact Mrs Zonja Bain at 302-4750 to make arrangements.