The Florida Neuroscience Center, headed by Dr. Eduardo Locatelli, has opened its doors in Fort Lauderdale. Dr. Locatelli, a neurologist, is an expert in Epilepsy with triple boards in Neurology, Neurophysiology, and Neuroimaging. He adds a master’s of public health to his medical doctorate degree as well as a certification as a Six Sigma champion. In collaboration with Holy Cross Hospital, Dr. Locatelli will expand the Epilepsy Program to offer state-of-the-art in Epilepsy monitoring.

**FIVE FACTS ABOUT EPILEPSY:**

1. About 1% of the population will have a seizure episode in their lifetime

A seizure is an abnormal electrical discharge from a group of neurons in the brain. Seizures may occur due to different reasons, including high fever, central nervous system infections, head trauma, tumors, strokes, or alcohol or drug withdrawal, to name a few. Additionally, some cases are familial. There are many different types of seizures: focal, when the electrical discharge remains in the area of onset; and generalized, when the discharge extends to the entire brain. People may experience just one type or more than one. The electrical disturbance location in the brain will determine the clinical manifestation of the seizure.

2. 40-60% of people with persistent seizures or spells do NOT have Epilepsy

Epilepsy affects more than 3 million people in the United States. Non-epileptic seizures are episodes that briefly change a person’s behavior and may often resemble epileptic seizures. The person having non-epileptic seizures may describe their sensations in a similar way as someone who is experiencing an epileptic seizure. It is difficult to differentiate the origin of the epileptic and the non-epileptic seizure by observing convulsive behavior.
alone. Epileptic seizures, though, are caused by abnormal electrical discharges in specific areas of the brain whereas non-epileptic seizures are not.

3. Video-EEG monitoring can help make the correct diagnosis

In order to make the proper diagnosis, these patients require diagnostic procedures in an Epilepsy monitoring unit. The process is as follows: the patient stays in the unit under close supervision, his or her medications may be discontinued, and continuous brain wave monitoring is recorded via electroencephalograms and simultaneous digital video to correlate brain activity with convulsive behavior.

4. For those with persistent epileptic seizures, brain surgery can cure Epilepsy

The majority of patients with Epilepsy keep seizure activity under control with medications. However, about half of the patients who continue to have seizures despite medication do not have Epilepsy. The quality of life of those diagnosed with Epilepsy is affected by their restricted independence, inability to drive, stigma, medication side effects, or depression. Making the correct diagnosis is essential. The surgical removal of seizure-producing areas of the brain causing abnormal discharges has been an accepted form of treatment for over 50 years. Patients with seizures that begin in very well localized areas may be excellent candidates for surgery.

5. Video-EEG monitoring can help localize the brain area that may need to be removed to cure Epilepsy through surgery.

Through this diagnostic procedure, we can ascertain the presence of Epilepsy 95% of the time. Once the correct diagnosis is made the proper treatment may be implemented.

Medication management and surgery are current treatment modalities. If a patient continues to have seizures after taking three or four medications, the chances of controlling their seizure disorder with an additional medication is less than 5%. This group has an alarming mortality rate as high as 1%. About 25% of those evaluated in the unit are potential candidates for surgery,
which may offer a cure for Epilepsy. Epilepsy surgery can be successful 65 to 90% of the time, substantially improving the patient’s quality of life.

“Some patients can’t be treated with surgery but new treatments are underway,” says Dr. Locatelli. Up and coming defibrillator-like devices are expected to sense abnormal electrical discharges and will release an electric shock preventing seizures from taking place. These and many more techniques and biotechnology advanced devices will assist Dr. Locatelli in his pursuit of better diagnostic tools and treatment options for his patients.

Eduardo R. Locatelli, MD, MPH
(Health@FloridaNeuroscience.com)
Director
Florida Neuroscience Center
1930 NE 47th Street, Suite 201
Fort Lauderdale, FL 33308
Phone: 954-414-9750

Florida Neuroscience Center

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