



Winter 2014

## EXPANDED COVERAGE

PALM BEACH NEUROSCIENCE INSTITUTE  
BRINGS YOU **NEURONews!**



## NEURONews

### INSIDE

- EPILEPSY AND SEIZURE
- MIGRAINE
- AND MORE...

## WELCOME

Welcome to the inaugural issue of the Palm Beach Neuroscience Institute *NeuroNews*. Our goal is to provide physicians the latest information about our services and treatments – information that you may find helpful for your patients.

Palm Beach Neuroscience Institute (PBNI) is dedicated to the diagnosis, treatment and rehabilitation of a wide range of

neurological and neurosurgical disorders and injuries. We treat patients suffering from disorders of the brain, spine and nerves at our offices in West Palm Beach, Palm Beach Gardens and Delray Beach.

We believe that a patient shouldn't have to leave South Florida to benefit from the latest procedural and technological advances in the treatment of stroke and other

neurological conditions. Our goal is to partner with South Florida physicians to provide expert, compassionate care right here.

We invite you to visit us at: **[www.PBNI.com](http://www.PBNI.com)** for a more comprehensive listing of our services and our team bios.

In good health,

*Ali Malek, MD*

*Nils Mueller-Kronast, MD*

# EPILEPSY AND SEIZURE

– PEDRO HERNANDEZ-FRAU, MD, NEUROLOGIST AND EPILEPTOLOGIST AND JUAN CARLOS MUNIZ, MD, NEUROLOGIST AND EPILEPTOLOGIST



Dr. Hernandez-Frau



Dr. Muniz

Epilepsy is the fourth most common neurological condition in the USA. It is estimated that around one to two percent of our population has epilepsy and roughly 35 percent of patients with epilepsy will not respond to medications. This could be because they are misdiagnosed, on the wrong antiepileptic medication or because they have intractable epilepsy. Thirty percent of patients diagnosed with epilepsy do NOT have seizures.

## SEIZURE VS. EPILEPSY

A seizure is the clinical manifestation of an abnormal and excessive excitation and synchronization of a population of cortical neurons. A single seizure does NOT indicate a diagnosis of epilepsy. Epilepsy refers to two or more unprovoked seizures. In other words, a seizure is the event and epilepsy is the disease.

Due to the complexity, diversity and challenge of treating epilepsy, the team at Palm Beach Neuroscience Institute has two epileptologists – neurologists who are fellowship trained in epilepsy, offering many treatment options.

## DIAGNOSIS AND TREATMENT

Significant advances have been made in the diagnosis and treatment of epilepsy over the past few years. With the help and advantage of long term video EEG monitoring, which is the gold standard test for diagnosing epilepsy, we can gather the information needed. We can confirm or rule out the diagnosis of seizure, identify the specific type of seizure or epileptic syndrome, and/or localize the seizure focus. This will help guide our treatment: antiepileptic medications, resective surgery, ketogenic diet, vagal nerve stimulator or responsive nerve stimulator. Unfortunately, it takes an average of 15 years for these patients with epilepsy to be referred to a sub-specialist. A timely referral and evaluation can have a significant positive impact, lead to a better outcome and better quality of life and can help prevent many comorbidities.

If you would like to schedule a consultation with Dr. Hernandez-Frau or Dr. Muniz, please call **561.882.6214**.

## NEUROSCIENCE SYMPOSIUM 2014

– DAVID DIPINO

**Dr. Ali R. Malek**, founder of the Palm Beach Neuroscience Institute (PBNI), coined the term “*A Lustrum of Progress*” to describe growth at the **5<sup>th</sup> Annual Neuroscience Symposium**, where the top neurologists from across the nation joined together to discuss the latest developments in neuroscience.

### SERIOUS FUN & LEARNING

Held over the Halloween weekend, the event began with a Pre-Symposium Nursing Conference at Hanley Center, adjacent to St. Mary's Medical Center (SMMC) in West Palm Beach. The nursing conference included presentations on stroke, ICU management, epilepsy, the nervous system and coagulation. At the nursing conference, Dr. Juan Carlos Muniz, an epileptologist with PBNI, gave a presentation titled – Epilepsy: A Clinical Review and Dr. Malek ended the day with a case review.

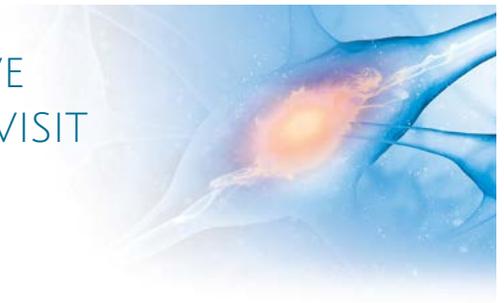
The following day, Dr. Malek and members of the Advanced Neuroscience Network (ANN), the Palm Beach Neuroscience Institute (PBNI), St. Mary's Medical Center Neuroscience Center and Palm Beach Children's Hospital welcomed over 200 physicians, nurses and medical professionals seeking CME credits to the Symposium held at the PGA National Resort & Spa in Palm Beach Gardens. Presentation topics included neurosurgery and the elderly, treatment of Parkinson's disease, the role of the hippocampus in the brain, hemorrhagic stroke, endovascular treatment of stroke, cryptogenic stroke and tactical healthcare.



For more speaker info please visit **PBNI.com**.



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NEUROSCIENCE NEWS VISIT  
[www.PBNI.com](http://www.PBNI.com)



# MIGRAINE

– JENNIFER BUCZYNER, MD  
NEUROLOGIST



Dr. Buczyner

## MIGRAINE

Migraine headaches are one of the most common referrals to any neurological practice. The cumulative lifetime prevalence of migraine headache is about 43 percent in women and 18 percent in men. There is often a hereditary component to migraine, particularly among female relatives. Estrogen is thought to play an important role in migraine generation. Head trauma can also precipitate headache with migraine features.

## DIAGNOSIS

The diagnosis of migraine is made when a patient experiences unilateral, pulsating headache with at least one of the following: nausea, photophobia or phonophobia. About 20 percent of patients will experience an aura prior to the onset of their headache, which may include visual, sensory or speech disturbances, which are fully reversible. As opposed to a tension headache, migraine is typically aggravated by physical activity and most patients will avoid exercise or activity. The pathophysiology of migraine is thought to involve dysfunction of brainstem pathways that normally modulate sensory input, in particular, the trigeminovascular system. Common migraine triggers include exertion, dietary factors (including delaying meals), sleep disturbances, head trauma, hormonal influences and medications. Patients are encouraged to maintain a headache diary to identify triggers.

## TREATMENT

Treatment is geared to acute treatment and prevention of migraine. For an occasional migraine, NSAIDs and triptans are a consideration. When a patient has more than two headaches per month which are debilitating, a preventative daily medication is often recommended, as well as a neurologic referral. Preventative medications may include blood pressure

medications (Propranolol, Verapamil), antiepileptic medications (divalproex sodium, zonisamide), antidepressants (tricyclic antidepressants, venlafaxine) and are chosen based on side effect profile and other comorbid medical conditions. Patients who continue to have more than 15 headache days per month, despite treatment with preventative medications, are termed chronic migraine and may benefit from Botox injections, an FDA approved treatment which has been shown to reduce headache frequency and severity.

If you would like to schedule a consultation with Dr. Buczyner, please call **561.882.6214**.



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# PHYSICIAN SPOTLIGHT

PBNI WELCOMES DR. DALVI

## Introducing Arif Dalvi, MD, MBA

**Dr. Dalvi** leads the ***Comprehensive Movement Disorders Program*** at Palm Beach Neuroscience Institute and is an internationally recognized leader in the medical and surgical treatment of movement disorders such as Parkinson's disease, essential tremor and dystonia. Dr. Dalvi and his team offer individualized treatment, from medicines and physical therapy to surgical treatments, like Deep Brain Stimulation.

***For more information on Dr. Arif Dalvi and an in-depth article on the Comprehensive Movement Disorders Program, please visit our website at [PBNI.com](http://PBNI.com) or you may reach Dr. Dalvi directly at 561.882.6214.***

