

### FROM THE DIRECTOR

Depression may be the most under diagnosed and under treated concomitant illness that contributes to the epilepsy patients' inability to live a full and productive life. Influential factors range from emotions evoked by the original diagnosis to seizure unpredictability and frequency. Unwarranted stigma often directs employment or educational roadblocks; both of which impair quality of life and strain relationships. The treating physician must also factor in the underlying cause of the disorder itself. The article below illustrates the means and benefits of early diagnosis and includes treatment recommendations for depression and other mood disorders in patients with a diagnosed seizure disorder. I hope you find this short didactic provides you with useful information and direction.

**Marcelo Lancman, M.D.**  
Medical Director

### DEPRESSION AND EPILEPSY

By Lorna Meyers, Ph.D.

Depression is the most frequent comorbid psychiatric disorder in epilepsy. Prevalence is estimated to be up to 50% among patients followed in tertiary centers. Moreover, there is a higher incidence of depression among epileptic patients than the general population or others with chronic medical conditions. The risk of suicide is higher in patients with epilepsy who are also depressed. Death by suicide occurs in 5% of patients with epilepsy compared to 1.4% in the general population. Moreover, there is evidence that suicide occurs at a higher frequency in patients who suffer from temporal lobe epilepsy. A large number of suicide attempts are due to overdoses, which is particularly troubling as many patients have access to powerful anti-epileptic drugs.

Depressive disorders can present as unipolar, bipolar, dysthymic and often, as an atypical depression, which can prove difficult to diagnose. In epilepsy, distinctions are made between interictal depression (between seizures), peri-ictal depression (just before or just after a seizure) or ictal (during a seizure).

In the diagnostic evaluation of these patients, clinicians must consider various individual or combined sources of this condition. These include secondary effects of medications, social, psychological, and neurobiological sources. With regards to the first issue, the physician must rule out the possibility that the depressive disorder resulted from the administration of antiepileptic drugs (mood inducing properties of AEDs, elevated doses or polypharmacy) or from the discontinuation of an AED with mood-stabilizing properties that was masking an underlying affective disorder. The barbiturates vigabatrin and topiramate have shown greater associations with the occurrence

of depressive symptoms than other antiepileptic drugs. In contrast, phenytoin, ethosuximide, carbamazepine, oxcarbazepine, gabapentin, sodium valproate, pregabalin and lamotrigine are all associated with lower risks for depression, and several of these antiepileptic drugs seem to have a positive effect on mood.

The physician may also suspect that an underlying cause of the depression is associated to neurobiological sources. Epileptogenic lesions and abnormal electrical activity, such as can be observed in mesial temporal lobe epilepsy, can impact the adequate functioning of the limbic system as well as normal neuronal integration and connections between different brain structures, resulting in behavioral dysfunction.

Additionally, the effect of a new onset diagnosis of epilepsy or a chronic experience with epilepsy can also produce a psychological/emotional reaction. The sense of powerlessness and loss of control associated with seizures, social stigma, concrete limitations (i.e. loss of driver's license, academic and occupational limitations) can understandably sometimes lead to feelings of sadness, despair, and hopelessness.

Observations have shown that the relationship between depression and epilepsy appears bi-directional; it has been observed that patients with major depression also have a higher frequency of epilepsy. In fact, it has been reported that patients with a history of depression have a 3 to 7 times higher risk of developing epilepsy. This supports the hypothesis that there are common pathogenic mechanisms underlying both disorders.

Treatment recommendations are that epilepsy patients should be screened by their general health practitioners for symptoms of depression. If symptoms suggestive of a mood disorder are noted, a referral to a neuropsychiatrist or neuropsychologist is in order. It is usually preferable for the assessment and treatment to be conducted by a specialist in neuropsychiatry who will be more familiar with drug interactions and the neurological condition of the patient. Similarly, treatment by a neuropsychologist or a psychotherapist with training in health topics provides the patient with a mental health professional familiar with correlations between physical and psychological health issues.

Once a thorough psychiatric evaluation is performed and a diagnosis is given, preferably a combination of psychopharmacological and psychotherapeutic treatments should be initiated. Despite concerns about lowering of seizure threshold through the prescription of antidepressant medications, patients with epilepsy usually respond well to certain anti-depressant medications at lower doses. Psychological treatment could take the form of individual, family and/or group therapy depending on the characteristics of the case. Support groups for persons with epilepsy can also prove a useful addition in the complete therapeutic picture.

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## 2007 CALENDAR OF EVENTS

### PHYSICIAN PROGRAM NEW YORK

**November – Date to be Announced – “Psychological Non-Epileptic Seizures: Diagnosis and Treatment” - Charles Zaroff, Ph.D.** • Orange Regional Medical Center Auditorium, Horton Campus, 60 Prospect Avenue, Middletown, NY 10940

### SUPPORT GROUPS FOR ADULT PATIENTS WITH EPILEPSY & THEIR CARETAKERS

**The 2<sup>nd</sup> Wednesday of every month - 6:30 PM** • Wallkill Medical Arts Building, 390 Crystal Run Road, Suite 101, Middletown, NY 10941

**The 1<sup>st</sup> Thursday of every month - 6:30 PM** • White Plains Hospital Center Medical Library, Davis Avenue at East Post Road, White Plains, NY 10601

**The 2<sup>nd</sup> Thursday of every month - 6:30 PM** • Overlook Hospital, The Atlantic Neuroscience Institute Conference Room, 99 Beauvoir Ave., Summit, NJ 07902

**Beginning this fall** • St. Luke's Cornwall Hospital, Newburgh Campus, 70 Dubois Street, Newburgh, NY 12550

### ADULT SUPPORT GROUP

**The 2<sup>nd</sup> Wednesday of every month – 3:00 – 4:00 PM** • Medical Pavilion, 4256-1 Bronx Boulevard, Bronx, NY 10466 – Call 646-457-2866 to register or for more information.

### TEEN SUPPORT GROUP

**The 4<sup>th</sup> Tuesday of every month - 7:00 PM – 8:00 PM** • Wallkill Medical Arts Building, 390 Crystal Run Rd., Suite 101, Middletown, NY 10941

### PARENT GROUP

**The 4<sup>th</sup> Tuesday of every month - 7:00 PM – 8:00 PM** • Wallkill Medical Arts Building, 390 Crystal Run Road, Suite 101, Middletown, NY 10941

**Call Ann Marie at 845-695-6885 for more information or to register for a group or educational program.**

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