

# New Insights into Bipolar Disorder

By Eric Hollander, MD

This month, *CNS Spectrums* highlights novel approaches to bipolar disorder. I would like to thank Kostas Fountoulakis, MD, PhD, for guest editing this issue.

Unique features of rapid cycling and mixed episode bipolar disorder are described and better characterized. For example, rapid cycling may develop later in the course of illness following a sensitization process triggered by antidepressant use or thyroid dysfunction. The risk factor of antidepressant use on bipolar switching and suicidality may have been overinterpreted in some prior studies. It is noted that the cognitive deficits associated with the bipolar spectrum may mimic or co-occur and complicate the symptoms of dementia. Clearly, our understanding of bipolar disorder has greatly evolved over time, the boundaries of this spectrum have been considerably broadened, and its unique presentations over the lifetime from early childhood to the elderly have been better described.

Also in this issue, Ann Gardner, MD, PhD, and colleagues explore whether single photon emission computed tomography function in depressed patients may be related to different levels of mitochondrial function in their research. They describe how low muscle citrate synthase activity in depressed patients was related to higher regional  $^{99m}\text{Tc}$ -*d,l*-hexamethylpropylene amine oxime retention, which could reflect cerebrovascular adaptation to impaired intracellular metabolism and/or intracellular enzymatic changes, as has been reported in mitochondrial disorders. Perhaps varying mitochondrial function may explain some of the discrepant results for  $^{99m}\text{Tc}$ -*d,l*-hexamethylpropylene amine oxime retention in depression.

By exploring the boundaries of bipolar disorder throughout the lifespan, and examining the relationship between blood flow and mitochon-

drial function in depression, this issue of *CNS Spectrums* aims to help clinicians better understand and treat such patients

Lastly, I would like to mention two of our regular columns. In "The Well-Rounded Brain," Uriel Halbreich, MD, discusses parameters of quality of care and treatment outcome of acute schizophrenia patients who were involved as subjects in a clinical trial of two marketed, widely used antipsychotics compared with their fellow patients who received routine clinical hospital care. Of note, systematic diagnostic interview did not confirm the clinical diagnosis of schizophrenia in 11.7% of patients. Study patients had shorter length of stay, no use of antipsychotics as chemical restraints, and less recidivism following the trial compared with prior to the trial. Patients who participate in structured clinical research with well-delineated procedures, clinical outcome measures, and clear expectations, fared better than their fellow patients in the same non-research hospital wards. Application of some characteristics of clinical research to the diagnosis and treatment of clinical non-research patients may be considered.

In "Pearls in Clinical Neuroscience," Dan J. Stein, MD, PhD, and colleagues, examine whether mindfulness-based approaches to psychotherapy represent a new wave of cognitive-behavioral therapy or a core process in all psychotherapies. One way of conceptualizing mindfulness is in terms of emotion regulation; mindfulness is a strategy aimed at opposing suppression and avoidance. Dispositional mindfulness has been associated with greater activation in prefrontal cortex and greater deactivation of amygdala during affect labeling. A number of rigorous studies of mindfulness-based cognitive therapy for depression have been positive. However, much remains to be discovered about the underlying mechanisms of and clinical indications for mindfulness-based approaches. **CNS**