Immunotherapy associated with improved seizure outcomes among patients with autoimmune epilepsy

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Early-initiated immunotherapy appears to be associated with improved seizure outcomes among patients with autoimmune epilepsy, according to a report published Online First by *Archives of Neurology*.

"Antiepileptic drugs (AEDs) are the mainstay of treatment for epilepsy, but seizures continue in one-third of patients despite appropriate AED therapeutic trials," the authors write as background in the study. "Even in the current era, the etiology of epilepsy often remains unclear." Additional background information notes that seizures are a common symptom in autoimmune neurologic disorders, such as limbic encephalitis.

To evaluate clinical characteristics and immunotherapy responses in patients with autoimmune epilepsy, Amy M. L. Quek, M.B.B.S., of the Mayo Clinic, College of Medicine, Rochester, Minn., and colleagues, gathered data from the Mayo Clinic computerized diagnostic index from patients who were evaluated in both the Autoimmune Neurology Clinic and Epilepsy Clinic between January 2005 and December 2010, and were diagnosed with autoimmune epilepsy.

The authors identified 32 patients for inclusion in the study. All patients had partial seizures, and 81 percent had failed treatment with two or more AEDs and had daily seizures; the remaining patients had at least one seizure a month. Immunotherapy was started in 27 of 32 patients for

treatment of persistent seizures despite AED therapy.

After a median follow-up time of 17 months (range 3-72 months), 22 of 27 patients (81 percent) reported improvement following immunotherapy, and 18 patients were seizure free. Of these 18 patients, eight (44 percent) were seizure free within 12 weeks of immunotherapy initiation. Five patients did not respond to immunotherapy; however, two of the five demonstrated subsequent improvement after AEDs were changed.

"When clinical and serological clues suggest an autoimmune basis for medically intractable epilepsy, early-initiated immunotherapy may improve seizure outcome," the authors conclude. "Clinical experience suggests that immunotherapy should not be used alone to control seizures but should be used in combination with AEDs to optimize seizure control."

In an accompanying editorial, Gregory K. Bergey, M.D., of the Johns Hopkins University School of Medicine, Baltimore, writes, "The article by Quek et al on autoimmune epilepsy is another reminder that we need to broaden our concept of symptomatic chronic epilepsy from the structural realm into more dynamic processes not limited to acute inflammatory or infectious pathologies (e.g., meningitis or encephalitis)."

"What is the true scope of autoimmune epilepsy in our populations of drug-resistant epilepsy? This is not known, but certainly at present it is probably being underdiagnosed," Dr. Bergey writes.

"Certainly trials as to which immunotherapy (steroids, intravenous immunoglobulin, cyclosporine, rituximab) is best would be ethical. We need an increased appreciation of the potential role of autoantibodies in refractory epilepsy so we are not overlooking treatable etiologies," he

concludes.

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