Researchers Report on Safety of Rapid AED Withdrawal in Pre-surgical Video/EEG Monitoring

Embargoed for release until 10:45 AM (EST), December 7th

Washington, D.C., December 7, 2013 - Patients with epilepsy often undergo evaluation by concurrent video and EEG monitoring (vEEG) for therapeutic planning, including possible epilepsy surgery. Seizures during monitoring increase the diagnostic yield and require the withdrawal of anticonvulsant drugs (AEDs) to allow seizures to occur. A frequently asked question in clinical practice concerns the safety and long-term effect of AED withdrawal or discontinuation in this diagnostic procedure.

To answer this question, investigators at the University of Saskatchewan in Canada, conducted a prospective study of 150 patients admitted to their vEEG telemetry unit over a period of five years. The patients’ medication therapy was discontinued by a standardized rapid AED withdrawal protocol. Rapid discontinuation was not done in patients with a previous history of status epilepticus or taking phenobarbital. The researchers then assessed the number of patients having subsequent seizures, the safety of the withdrawal/telemetry procedure, and epilepsy surgery outcome. (Poster 1.127 / abstract 1748460 – Is early Discontinuation of AED Therapy during EEG Telemetry Safe and Efficacious?)

Seizures and non-epileptic events were recorded in nearly 90% of the patients. This diagnostic yield was achieved over a mean VEM duration of 4.53 days, with no benefit of longer monitoring. Habitual seizures were recorded in 107 patients to support a diagnosis of epilepsy while non-epileptic events were recorded in 36 patients.

Based on the information provided by vEEG telemetry, 52 of 158 patients (32.9%) received epilepsy surgery of which nearly 90% attained Engel Class I/II status at 24 months. The complication rate was 5.06%, characterized largely by musculoskeletal pain secondary to clinical seizure activity, with no mortality observed. In the first month following VEM 2.5% of patients received emergency-room admission for seizure clustering.

“VEEG telemetry monitoring with early cessation of AED therapy is safe and effective,” says Syed A. Rizvi, MD, lead author of the report. “Surgical outcomes are favorable and support the use of this technique under the supervision of a team comprising epileptologists, nurses, and EEG technologists.”
Editors Note: Authors of this study will be available at a press briefing at 10:45 am (EST), December 7, in the onsite pressroom, Room 209-A, Level 2 of the Walter E. Washington Convention Center. The call-in number for off-site journalists is 1-605-475-4000, passcode 521653#.

About Epilepsy
The epilepsies affect 50 million people worldwide, including three million in the United States. The disorder can have a single specific, well-defined cause, such as a head injury, or manifest as a syndrome with a complex of symptoms. It is the third most common neurological disorder after Alzheimer’s disease and stroke.

About the American Epilepsy Society (AES)
The American Epilepsy Society, based in West Hartford, Conn., seeks to advance and improve the treatment of epilepsy through the promotion of epilepsy research and education for healthcare professionals. The Society’s annual meeting is the largest scientific meeting in epilepsy and each year attracts some 4,000 physicians, scientists and allied healthcare professionals from around the world.

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