The link between anticonvulsant agents and suicidal acts or violent death—first revealed in a Food and Drug Administration meta-analysis in 2007—has been confirmed for four of the drugs: gabapentin, lamotrigine, oxcarbazepine, and tiagabine, according to a new report. In what investigators described as the meta-analysis, the number of events was small and largely confined to cases of suicidal ideation only. This “prevented definitive conclusions about the safety of individual agents.”

In addition, in many of the studies included in the meta-analysis, the anticonvulsant agents were used as adjunctive treatment, “further complicating the assessment of their individual effect.”

“Thus, the FDA meta-analysis could not provide patients or clinicians with clear guidance on risks for specific agents or patient subgroups,” Dr. Patrano and her colleagues noted. The latter issues by conducting a cohort study using a data from 297,620 new prescriptions for anticonvulsant drugs in 17 states between 2001 and 2006. The risks of attempted or completed suicidal acts or violent deaths were compared between patients aged 15 and older who had initiated treatment with one of two reference anticonvulsants (topiramate or carbamazepine) and patients who had initiated treatment with any of 13 other anticonvulsants.

The study subjects were to be followed for 180 days until they discontinued or switched medications, had a study outcome, or discontinued the study for other reasons. Mean follow-up turned out to be 91 days.

There were 801 attempted suicides, 26 completed suicides, and 41 violent deaths during the follow-up period among patients taking either anticonvulsant therapy. Compared with subjects initiating use of topiramate or carbamazepine, those starting on gabapentin, lamotrigine, oxcarbazepine, and tiagabine were at significantly increased risk for the first ever suicide attempt or suicide-related death.

“These findings are compatible with the results of the FDA meta-analysis, which found similarly increased risks of suicidal behavior or ideation for all anticonvulsant drugs compared with placebo,” Dr. Patrano and her associates said. They cautioned that their study was exploratory in nature, and so could only suggest rather than definitively establish a causal relationship between these drugs and suicidal behavior. “There is no clear understanding of a possible mechanism of action that could lead to suicidal behavior in patients taking these medications,” the researchers added.

Gabapentin and lamotrigine have been linked to behavioral problems such as agression and hyperactivity, particularly in children and adults who have learning disabilities or cognitive impairment. Tiagabine has been reported to cause nervousness and depressive mood in some patients and Tiagabine has 20% to 30% of people have to have a stimulant effect on a psychologist functioning in some, they said.

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