Study confirms teratogenicity of valproic acid, topiramate

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(HealthDay)—Valproic acid and topiramate are confirmed teratogens,

according to a study published online June 12 in *Neurology*.

Pierre-Olivier Blotière, from the French National Health Insurance in Paris, and colleagues conducted a nationwide cohort study involving all pregnancies ≥20 weeks between January 2011 and March 2015 to examine the correlation between exposure to monotherapy with 10 different antiepileptic drugs in the first two months of pregnancy and the risk for 23 major congenital malformations (MCMs).

Data were included for 1,886,825 pregnancies, of which 2,997 were exposed to lamotrigine, 1,671 to pregabalin, 980 to clonazepam, 913 to valproic acid, 579 to levetiracetam, 517 to topiramate, 512 to carbamazepine, 365 to gabapentin, 139 to oxcarbazepine, and 80 to phenobarbital. The researchers found that eight specific types of MCMs were associated with exposure to valproic acid (e.g., spina bifida, odds ratio, 19.4). Exposure to topiramate correlated with an increased risk for cleft lip (odds ratio, 6.8). Three other signals were identified. No significant correlations were identified for lamotrigine, levetiracetam, carbamazepine, oxcarbazepine, and gabapentin.

"While these drugs can help prevent symptoms and improve a person's quality of life, studies have raised serious concerns that some of these drugs may increase the risk of birth defects," a coauthor said in a statement. "Because these drugs are being prescribed more widely, and because unplanned pregnancies are not uncommon, we wanted to examine their safety with a much larger study."

More information: Abstract/Full Text (subscription or payment may be required)