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I.Q. Harmed by Epilepsy Drug in Utero

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Pregnant women who took a popular epilepsy drug, also widely used to treat migraines, pain and psychiatric disorders, had children whose I.Q. scores were significantly lower than those whose mothers took a different antiseizure medication, a new study has found.

The drug, valproate, sold generically and under the brand name Depakote, remains the second-most-popular antiseizure medication used for epilepsy, but earlier studies found that use during pregnancy also increased the risk of developmental delays and major malformations.

The risks that other epilepsy drugs may pose are not clear, experts say. While some are likely to be safer than others, there have not been enough studies to guide patients and their doctors. About half of the women who take valproate are not epileptics.

The new study is to be published on Thursday in The New England Journal of Medicine.

Three-year-olds whose mothers had taken valproate during pregnancy had I.Q. scores that were nine points lower on average than children whose mothers had taken a different antiseizure medication, lamotrigine. The I.Q. scores of toddlers whose mothers took valproate were also lower than scores of children whose mothers took two other antiseizure medications, phenytoin and carbamazepine.

Physicians involved in the study warned that valproate should never be the first choice for use in women of childbearing age, though exceptions may be made if a woman's epileptic seizures cannot be controlled with other available medications.

"My thought is that if I make a mistake and the patient has a breakthrough seizure, I can change the medication and switch the patient to valproate," said Dr. Kimford J. Meador, professor of neurology at Emory University School of Medicine in Atlanta, and first author of the new report. "If I put the patient on valproate as a first choice and the baby has cognitive impairment or a malformation, I can't repair that."

Dr. Meador and his colleagues enrolled 303 pregnant women who were each using an antiepileptic drug and were treated at 25 epilepsy centers in the United States and Britain

from October 1999 to February 2004.

Cognitive assessments were conducted in 258 2- and 3-year-olds born to 252 mothers, of whom 53 had taken valproate.

Over all, children's I.Q. scores were strongly related to mothers' I.Q. scores, except among the children of mothers treated with valproate, the study found.

At age 3, children exposed to valproate in utero had a mean I.Q. of 92, compared with 101 for children exposed to lamotrigine, 99 for those exposed to phenytoin, and 98 for those exposed to carbamazepine, the study found.

Some 13,000 to 21,000 babies each year are born to women with epilepsy, and the vast majority are healthy, researchers and advocates emphasized.

Experts warned that women should not stop taking valproate without talking to their doctors.

"It's important to stress to readers that if they become frightened, they should not simply stop taking the drug, because that can be even more dangerous," said Eric Hargis, president of the Epilepsy Foundation in Washington.