Women With Epilepsy—Do Seizures during Gestation Affect Pregnancy Outcomes?

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Abstract

OBJECTIVE: To assess whether seizures in women with epilepsy during pregnancy contribute to adverse pregnancy outcomes. DESIGN: A retrospective cross-sectional study. SETTING: Taiwan. Patients This study linked 2 nationwide population-based data sets: Taiwan's birth certificate registry and the Taiwan National Health Insurance Research Data set. A total of 1016 women with epilepsy were selected who had single births from 2001 to 2003 and who had been diagnosed with epilepsy within 2 years prior to their index delivery, together with 8128 matched women without chronic disease as a comparison cohort. Women with epilepsy were further stratified into 2 groups for analysis: women who did and did not have seizures during pregnancy. MAIN OUTCOME MEASURES: Low-birth-weight infants, preterm delivery, and infants who are small for gestational age (SGA). RESULTS: Compared with women without epilepsy, epileptic seizures during pregnancy were independently associated with a 1.36-fold (95% confidence interval [CI], 1.01-1.88), 1.63-fold (95% CI, 1.21-2.19), and 1.37-fold (95% CI, 1.09-1.70) increased risk of low-birth-weight infants, preterm delivery, and SGA, respectively, after adjusting for family income and parental and infant characteristics. Further, the risk of SGA increased significantly (odds ratio, 1.34; 95% CI, 1.01-1.84) for women with seizures during pregnancy compared with women with epilepsy who did not have seizures during pregnancy. CONCLUSION: We suggest preventing seizures during pregnancy as an essential step to reduce risk of adverse pregnancy outcomes.