Medical Xpress

Researchers find antidepressant bupropion crosses placenta

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(HealthDay)—In pregnant women taking the antidepressant bupropion,

the drug and its active metabolites cross the placenta to the fetal circulation, according to a study published in the October issue of the *American Journal of Obstetrics & Gynecology*.

Valentina M. Fokina, from the University of Texas Medical Branch in Galveston, and colleagues investigated the transfer of bupropion and its major pharmacologically active metabolites (hydroxybupropion and threohydrobupropion) across the placenta in 22 women taking bupropion during pregnancy. Samples included maternal blood (22 subjects), umbilical cord venous blood (22 subjects), and amniotic fluid (nine subjects).

The researchers found that the levels of hydroxybupropion and threohydrobupropion in umbilical cord venous plasma were lower than the corresponding concentrations found in maternal plasma. For the majority of the maternal-cord blood pairs, concentrations of bupropion in umbilical cord plasma were lower than in maternal plasma. Bupropion and its metabolites were detectable in amniotic fluid; however, the concentrations of threohydrobupropion were higher than those in the corresponding umbilical cord venous plasma.

"The biological consequences of fetal exposure to maternally administered bupropion and/or its active metabolites via placental transfer and recirculation of the amniotic fluid are yet to be determined," the authors write.

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

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