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Exposure to Synthetic Oxytocin May Increase Risk of Postpartum Depression, Anxiety



A [study](#) published today in *Depression and Anxiety* suggests that pregnant women who receive synthetic oxytocin (Pitocin) during or shortly after delivery may be at a greater risk of postpartum depression or anxiety than those who are not exposed to the synthetic hormone. Understanding the relationship between oxytocin and postpartum depression or anxiety could help to identify women at greatest risk of these disorders, which can have adverse effects on offspring.

For decades, synthetic oxytocin has been regularly administered to induce/advance labor and prevent post-delivery hemorrhages. More recently, studies have suggested oxytocin—known to have positive effects on mood and maternal-child bonding—may be able to be used to treat perinatal depression and anxiety.

For the current study, Kristina Deligiannidis, M.D., of the Feinstein Institute for Medical Research in New York and colleagues analyzed data on peripartum patients who received intravenous synthetic oxytocin between 2005 and 2014 at University of Massachusetts Memorial Health Care.

The sample included 9,684 deliveries with peripartum synthetic oxytocin exposure (defined as within two weeks of delivery date) and 37,048 deliveries without peripartum synthetic oxytocin exposure. Depressive or anxiety disorders, defined as record of diagnosis and/or receipt of antidepressant or anxiolytic medication prescription, were divided into three timeframes: pre-pregnancy (diagnosis/prescriptions more than one year before delivery), pregnancy (diagnosis/prescription during pregnancy or 40 weeks ahead of delivery date), and postpartum (diagnosis/prescription one year following delivery).

The researchers found that exposure to peripartum oxytocin increased the risk of depression or anxiety in the first postpartum year by about 32% in women with no history of pre-pregnancy depression or anxiety. In women with a history of pre-pregnancy depressive or anxiety disorder, exposure to the peripartum oxytocin increased the risk of depression or anxiety by 36%. These risks were still present even if the analysis factored in multiple births from one woman, for example by only looking at index deliveries (each woman's first birth) or analyzing one random birth from women with multiple deliveries.

"Our data support the idea that synthetic oxytocin administration during labor has a negative impact on postpartum mood," the researchers wrote. However, they noted, "It is important to note that the effect of synthetic oxytocin administration on endogenous oxytocin levels is unclear, and nothing about endogenous oxytocin levels can be inferred from our dataset..."

"Since synthetic oxytocin is such an important and commonly used medicine for peripartum women, further research should examine dose, duration, timing, and reason for treatment so that we can better identify which women may be at risk for developing postpartum depression and anxiety," Deligiannidis said in a [press release](#).

For related information, see the *Psychiatric News* article "[Determining Onset Timing of Postpartum Depression May Lead to Improvements in Treatment](#)."

This article was originally published in Psychiatric News and can be viewed here:
<http://alert.psychnews.org/2017/01/exposure-to-synthetic-oxytocin-may.html>