

DSEN ABSTRACT

Newer antidepressants and persistent pulmonary hypertension of the newborn

Summary

- The authors conducted a population-based cohort study to evaluate correlation between the use of selective serotonin reuptake inhibitors (SSRIs) and serotonin norepinephrine reuptake inhibitors (SNRIs) in late pregnancy and the risk of persistent pulmonary hypertension (PPHN) of the newborn.

Key messages

- Our data suggests that the use of SSRIs in the second half of pregnancy was associated with the risk of PPHN. However, given our results on SNRIs and the lack of statistical power for these analyses, it is unclear whether SNRI use during pregnancy also increases the risk of PPHN.

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What is the issue?

- Recent research has linked antidepressant use during pregnancy with an increased risk of spontaneous abortions, major congenital malformations, prematurity, low birth weight, and cognitive delay. However, limited data are available on the risk of pulmonary hypertension of the newborn (PPHN) associated with other types of antidepressants such as SNRI (venlafaxine, desvenlafaxine, duloxetine), bupropion, and mirtazapine. Given that PPHN is a rare condition, large population-based cohorts are needed to quantify its association with gestational use of antidepressants.

What was the aim of the study?

- To determine whether the use of SSRIs and SNRIs in late pregnancy is associated with an increased risk of PPHN.

How was the study conducted?

- Using data from the Quebec Pregnancy Cohort between 1998 and 2015, we included women covered by the provincial drug plan who had a singleton live birth. Exposure categories were SSRI, SNRI and other antidepressant use; non-users were considered as the reference category. Cases of PPHN were identified in the RAMQ/MedEcho databases from both maternal and infant files and defined based on the presence of the International Classification of Diseases, Ninth Revision diagnostic codes (ICD-9: 416, 747.8) and the International Statistical Classification of Diseases, 10th Revision diagnostic codes (ICD-10: I27, I521, P293) within the first 6 weeks of life in newborns not transferred to another hospital after birth.

What did the study find?

- Use of SSRIs in the second half of pregnancy was associated with the risk of PPHN.
- SNRI use was not statistically significantly associated with an increased risk of PPHN, which could be explained by the small sample size and lack of statistical power.
- Given our results, we do not know at this point whether SNRIs are associated with the risk of PPHN.

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