

Antidepressant use during pregnancy

Navigating the sea of information

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Abstract

Question When some of my patients who are taking antidepressants learn they are pregnant, they become anxious and confront me with the following statement: “I need this medication, but have heard so many conflicting stories from my friends and on the Internet and in the media that I am not sure if I should continue taking it.” How do I advise them, as I have also seen conflicting evidence in the scientific literature?

Answer To date, antidepressants are the most studied drugs during pregnancy, with more than 30 000 outcomes examining increased risks of adverse effects on exposed infants. The results of the studies can appear to be conflicting owing to differing interpretation of statistical analysis and subsequent knowledge transfer and translation of the information. However, there does not appear to be a clinically significant increased risk of any of the adverse outcomes reported in peer-reviewed published studies that would preclude a woman from taking a needed antidepressant during pregnancy.

Les antidépresseurs durant la grossesse

Naviguer sur une mer d'information

Résumé

Question Lorsque certaines de mes patientes qui prennent des antidépresseurs apprennent qu'elles sont enceintes, elles deviennent anxieuses et me disent ce qui suit: «J'ai besoin de ce médicament, mais j'ai entendu tellement d'histoires contradictoires de mes amis, des médias et sur Internet que je ne suis pas sûre que je devrais continuer à en prendre.» Quels conseils devrais-je leur donner, ayant moi aussi vu des données scientifiques qui se contredisaient?

Réponse À ce jour, les antidépresseurs sont les médicaments les plus étudiés durant la grossesse, notamment chez plus de 30 000 cas où l'on examinait les risques accrus d'effets indésirables pour les nourrissons exposés. Les résultats des études peuvent paraître contradictoires en raison des interprétations différentes des analyses statistiques et, subséquemment, du transfert des connaissances et de la transposition de l'information. Toutefois, il ne semble pas y avoir de risque accru cliniquement significatif de résultats indésirables rapportés dans les études publiées dans des articles révisés par des pairs, qui justifierait qu'une femme cesse de prendre un antidépresseur dont elle a besoin durant sa grossesse.

During their lifetime, women are twice as likely as men to experience depression, which mainly occurs during their reproductive years.¹ Consequently, a substantial number of women might be taking antidepressants when they become pregnant. The estimated point prevalence for a major depressive episode during pregnancy is up to 18%.² A study conducted by the National Birth Defects Prevention Program that collected information from 10 US states documented that among 6582 mothers included in the study, 298 (4.5%) reported use of antidepressants during pregnancy. Alwan et al also reported that antidepressant use at any time during pregnancy had increased from 2.5% in 1998 to 8.1% in 2005; and the percentage

is likely higher since these data have been compiled,³ as overall use of antidepressants in the general population has increased exponentially.⁴ Although these numbers are from the United States, they likely reflect prevalence throughout the world, as the World Health Organization ranks depression as the leading cause of disability worldwide and estimates an effect on approximately 120 million individuals.⁵ Unfortunately, despite some advances in public perception, there continues to be a global stigma surrounding mental illness.⁶ We conducted 2 studies at Motherisk to evaluate pregnant women's beliefs about taking antidepressants during pregnancy and found that information from friends, family, and health care providers

had a huge effect on whether a woman decided to continue to use her antidepressants or not, depending on the information she had received, most notably, whether it was positive or negative.⁷ In our second study, we found that when a government advisory regarding the use of an antidepressant during pregnancy was reported in the media, it was translated in a way that was not intended, with “scary” headlines, which induced high anxiety in all of the women who saw or heard this information. Subsequently, some of these women abruptly discontinued taking their antidepressants, which is definitely not a recommended practice.⁸

Current evidence-based information

To date, antidepressants are the most studied drugs during pregnancy, with more than 30 000 infant outcomes following exposure during pregnancy documented in the peer-reviewed literature.⁹ In a recent review of the literature, following an evaluation of all the published studies, with differing methodologies, Byatt et al found the absolute risk of major malformations, including cardiovascular heart defects, which had been associated with some antidepressants, to be marginal.¹⁰ As for other adverse outcomes, in another review, the authors did not find an overall increased risk associated with mean birth weight, small for gestational age, or long-term neurodevelopmental adverse outcomes. However, there does appear to be a significantly ($P < .05$) increased risk of spontaneous abortion, pre-term birth, and infants born weighing less than 2500 g. In addition, there is a possible increased risk of persistent pulmonary hypertension of the newborn and evidence of poor neonatal adaptation syndrome following antidepressant use in late pregnancy. However, all of the observed risks were of very low magnitude and the clinical significance of these results was unknown.¹¹


Knowledge transfer and translation

Well executed knowledge translation (KT) has become an important part of effective health care management. The Canadian Institutes of Health Research Act states that its primary objective is to “excel in the creation of new knowledge and its translation into improved health for Canadians,” and a task force is currently operating to improve KT.¹² Women and their health care providers are greatly affected by the type of teratology information they receive, for example, when deciding to terminate a wanted pregnancy or to discontinue a needed pharmacotherapy, such as an antidepressant. When disseminating information in this very sensitive and complex field, it is important that good KT strategies are used in order to help women make evidence-based decisions that ensure optimal outcomes for both them and their unborn children.¹³

It is important that physicians critically evaluate the methodology, analysis, and results of studies that have been published regarding the safety of antidepressants during pregnancy. Published individual studies regarding the safety of antidepressants during pregnancy tend to emphasize very small increased odds ratios, usually less than 2, which are explained in ways that make them appear to be much more important than they really are for individuals. Small but statistically significant risks are key at the population level, but most often are not clinically important, which is the information that a clinician requires to inform the patient of her individual risk. This is likely why studies appear to be conflicting. For example, there is little difference between an odds ratio of 1.2 and 1.5; both might be statistically significantly increased (although marginally), whereas the clinical difference, in which the physician is interested with regard to the particular patient, is probably negligible.¹⁴

Conclusion

To date, antidepressants are the most studied drugs during pregnancy, with more than 30 000 outcomes examining increased risks of adverse effects on

exposed infants. The results of these studies can appear to be conflicting owing to differing interpretation of the statistics and the subsequent knowledge transfer and translation of the information. However, there does not appear to be a clinically significant increased risk of any of the adverse outcomes reported in peer-reviewed published studies that would prevent a woman from taking a needed antidepressant during pregnancy. 

Competing interests

None declared

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MOTHERISK

Motherisk questions are prepared by the Motherisk Team at the Hospital for Sick Children in Toronto, Ont. Ms Einarson is a consultant for the Motherisk Program.

Do you have questions about the effects of drugs, chemicals, radiation, or infections in women who are pregnant or breastfeeding? We invite you to submit them to the Motherisk Program by fax at 416 813-7562; they will be addressed in future Motherisk Updates. Published Motherisk Updates are available on the *Canadian Family Physician* website (www.cfp.ca) and also on the Motherisk website (www.motherisk.org).
