



9 July 2015

The BMJ

Press Release

Confirmation that some SSRI antidepressants may be associated with increased birth defect risk

Findings provide guide to safest treatment options during early pregnancy

Some antidepressants known as SSRIs (selective serotonin reuptake inhibitors) taken during early pregnancy may indeed be associated with an increased risk of birth defects, finds a study published in **The BMJ** this week.

The authors stress that if these associations are causal, the absolute risks for these birth defects are still low, and they call for further studies “to enable women and their healthcare providers to make more informed decisions about treatment.”

The association between use of antidepressants, especially SSRIs, during pregnancy and birth defects in the infants has been the topic of much discussion in recent years. Studies have reached conflicting conclusions, leading to uncertainty around the safety of antidepressant use during pregnancy. A number of specific birth defects have been described in previous studies of women taking SSRIs, and these were analysed further in the current study.

A team of researchers based in the USA and Canada combined results from independent published analyses with data from the US National Birth Defects Prevention Study (NBDPS) to

provide a more robust estimate of the association between individual SSRIs and birth defects.

Their analysis included 17,952 mothers of infants with birth defects and 9,857 mothers of infants without birth defects, born between 1997 and 2009.

Use of the SSRI drugs citalopram (Celexa), escitalopram (Lexapro), fluoxetine (Prozac), paroxetine (Paxil), or sertraline (Zoloft) at least once in the period from one month before conception through the third month of pregnancy was recorded.

Women who reported taking antidepressants other than SSRIs or reporting pre-existing diabetes were excluded.

Sertraline was the most commonly used SSRI, but none of the five previously reported associations between sertraline and birth defects were confirmed. This is reassuring, say the authors, as about 40% of women reporting use of an SSRI in early pregnancy used sertraline.

For nine other previously reported associations between maternal SSRI use and birth defects in infants, findings were also consistent with no association.

However, two previously reported birth defects associated with fluoxetine treatment were observed - heart wall defects and irregular skull shape (craniosynostosis).

Five previously reported birth defects associated with paroxetine treatment were also seen. These included heart defects, problems with brain and skull formation (anencephaly), and abdominal wall defects.

These data provide reassuring evidence for some SSRIs, say the authors, but suggest that some birth defects occur more frequently among the infants of women treated with paroxetine or fluoxetine in early pregnancy.

“Although our analysis strongly supports the validity of the associations that were observed, the increase in the absolute risks, if the associations are causal, is small,” they stress.

For example the absolute risks in the children of women who are treated with paroxetine early in pregnancy would increase for anencephaly from 2 per 10,000 to 7 per 10,000, and for one of the heart defects from 10 per 10,000 to 24 per 10,000.

“Continued scrutiny of the association between SSRIs and birth defects is warranted,” they say, “and additional studies of specific SSRI treatments during pregnancy are needed to enable women and their healthcare providers to make more informed decisions about treatment.”

“Meanwhile, the current analysis provides guidance to the safest treatment options during early pregnancy to minimize the risk of major birth defects, while providing adequate treatment of maternal depression,” they conclude.

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Notes to Editors:

Research: Specific SSRIs and birth defects: bayesian analysis to interpret new data in the context of previous reports

<http://www.bmj.com/cgi/doi/10.1136/bmj.h3190>

https://www.youtube.com/watch?v=s-zze_U8DJ0

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