Antidepressants do not cause heart defects in babies

A large study dispels any notions about SSRIs causing serious heart defects in babies.

Pregnant women who take SSRI antidepressants should not fear that their offspring could be born with a serious heart defect.

A large-scale study of public health records from the Nordic countries and Iceland have shown that SSRI drugs do not in themselves increase the risk of heart deformities such as septal defects (hole in the heart) in newborn infants.

"My concern has long been that we undertreat some women suffering from depression because they’re pregnant. So it’s reassuring to make this discovery. I think it is comforting," says specialist Mette Nørgaard, Ph.D from the Clinical Epidemiology at Department of Aarhus University Hospital.

She was involved in the new study, which shows that antidepressants do not appear to increase the risk of these serious defects to any appreciable degree.

The results have just been published in the British Medical Journal.

The risk is increased …

Previous studies had shown that there is a greater risk of heart defects in babies if the mother has taken SSRI drugs during pregnancy.

One of the most common defects is a hole in the heart, or septal defect, which means that the wall between the chambers of the heart is incomplete. As a result, the blood does not flow the right way through the heart as it pumps.

The new study is the most comprehensive carried out to date of the correlation between heart defects in infants and antidepressant drugs.

The scientists used health records from Denmark, Sweden, Norway, Finland and Iceland to identify women who had taken antidepressants during pregnancy.

A total of 36,772 infants had been exposed the antidepressant drug whilst in their mother's wombs. The scientists then compared the effect on these babies with 2,266,875 infants who had not been exposed to the drug.

The researchers found that exposed babies had an 17 per cent increased risk of having a septal defect. However, the increased risk could well have had other causes than the intake of medication.
"For instance, a depression in itself may mean that the mother had led an inferior lifestyle during pregnancy," says Nørgaard.

... but not when heredity is taken into account

Suspecting that there could be other causes than the antidepressants, the scientists extracted 895 mothers who had been pregnant at least twice but had only taken antidepressants during one of their pregnancies.

A total of 2,288 babies from the records were included in this sibling analysis.

"The occurrence of heart defects was equally distributed on the two pregnancies. This means that it’s highly likely that SSRI drugs were not directly responsible for the increased risk," says Nørgaard.

This may, for instance, have been an inherited disposition in the mother or that she was leading an unhealthy lifestyle precisely because of her depression.

SSRI drugs are relatively quickly broken down by the body. The content of the drug in the body is halved within a few days when a person stops taking it. As a consequence, the substances will have left the body completely after a week.

So the reason for siblings also having heart defects cannot have been due to any remnants in the drug of the pregnant women.

A number of the siblings included in the study were also born before the women began taking antidepressants.

Coming study accounts for heredity AND lifestyle

It is the first time that a study of SSRI drugs and defects takes heredity and lifestyle factors into account.

Professor Poul Videbech, a psychiatrist at the University of Copenhagen and Psychiatric Centre Glostrup finds the result extremely interesting.

"This is an enormously interesting study. In my opinion it has been very cunningly designed. It did initially show that at the use of SSRI posed a slightly increased risk. So it was an excellent idea to make comparisons with siblings," he says.

Both Videbech and Nørgaard observe that there is a slightly increased risk of infant deformities in pregnant women who are or have been disposed to depression.

"This slightly increased risk is probably related to some other factors in the family or the women rather than the antidepressants," says Videbech.

He refers to the fact that pregnant women suffering from depression often lead less healthy lives than non-depressed pregnant women and to a greater extent skip check-ups with their doctors and midwives.

Double the risk of high blood pressure in the lungs

All the same, depressed pregnant women should still consider consulting their doctors if they have to take antidepressants.

A previous study, which Nørgaard was also involved in, showed that there is a risk of another potentially
serious condition occurring in newborns: high blood pressure in the lungs. The risk is actually doubled when a pregnant woman takes an SSRI drug.

"Taking SSRI drugs in the final stages of pregnancy doubles the risk, but because the frequency of high blood pressure in the lungs is already quite low, it's still better to take the medicine," says Nørgaard.

The study showed that 1.2 out of 1,000 newborn babies are born with this condition.

The occurrence in babies exposed to antidepressants during the final period in the womb is 3 out 1,000.

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