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Male Newborns at Greater Risk for Birth Defects

Male predominance of congenital malformations in infants of women with type 1 diabetes, by Inge M. Evers and colleagues. *Diabetes Care* 32:1194–1195, 2009

What is the problem and what is known about it so far?

Although modern medicine has made pregnancy safer for women with diabetes, babies born to diabetic women, especially those with poor blood glucose control, are still more likely to have birth defects than other babies. Recent studies have found some differences in pregnancy outcomes between male and female babies of diabetic women. However, more study is needed to fully understand these differences.

Why did the researchers do this particular study?

The researchers wanted to learn more about sex-related differences in the rates of birth defects for newborns of type 1 diabetic women.

Who was studied?

The study included pregnant women with type 1 diabetes and their infants throughout The Netherlands.

How was the study done?

Researchers looked at data from more than 300 pregnancies of type 1 diabetic women and their outcomes in terms of maternal health and birth defects. They performed statistical analyses to see whether birth defects were linked to the sex of the newborns.

What did the researchers find?

Male newborns were more likely to have birth defects, pre-term birth, and problems with their respiratory systems, even after taking other factors into account. Blood glucose control did not differ between women having boys and those having girls. The birth defect rate for female newborns of the diabetic mothers was not much greater than that for the general population.

What were the limitations of the study?

Although the study found a link between male sex and birth defects, it did not address the reasons for this link. More study is needed to understand why male babies of diabetic mothers are at higher risk.

What are the implications of the study?

This study suggests that the risk of birth defects to babies of diabetic mothers is mostly limited to male babies. More research is needed to explain why newborn boys are more likely to have birth defects.

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