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In response to "In utero exposure to methotrexate and risk of congenital malformations"

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Keywords

methotrexate; birth defects; congenital heart defects

To the Editor

We thank Dr. Damkier and Dr. Kaplan [Damkier and Kaplan, this issue] for their interest in our recent manuscript [Dawson et al., 2014], and their comments on our presentation of data regarding birth defects in the children of mothers who reported preconceptional or prenatal exposure to methotrexate in the National Birth Defects Prevention Study.

Studying the association between medications and birth defects is challenging and requires a multifaceted approach. The complete picture often combines data from animal studies, case-series, case-control studies, Teratogen Information Services studies, and cohort studies. Each of these study designs comes with limitations that need to be acknowledged in the scientific manuscripts. For our study the limitations included recall bias and reliance on maternal report, as we acknowledged in our paper. There may be other limitations or biases and our sample size was small, which is why we conducted a descriptive analysis and did not calculate measures of association.

However, as we read the case-series on methotrexate exposed pregnancies and the suggestion that heart defects might be part of the methotrexate embryopathy [Piggott et al., 2011; Poggi and Ghidini, 2011], we felt that we would be remiss if we did not publish the data we had available to us. Our data, from population-based birth defects surveillance systems, were collected over a period of twelve years and included very detailed case review and classification and exposure assessment based on a specific question about the use of methotrexate. The fact that several mothers of infants with congenital heart defects reported use of methotrexate shortly before or during pregnancy could indicate that the developing heart might be sensitive to methotrexate. The only way we will be able to give healthcare providers and women answers to their questions about medication use during pregnancy is

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collecting the best data we can and sharing our observations through peer-reviewed publications.

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