

Potent Topical Steroids during Pregnancy Affect Newborn Birth Weight

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Journal of Investigative Dermatology (2011) **131**, 808. doi:10.1038/jid.2011.25



Not uncommonly, dermatologists are presented with the following scenario. A long-standing patient with atopic dermatitis informs you that she is pregnant. For the safety of her unborn child, you discontinue systemic medications but instruct her to continue using her topical steroids. Does use of topical steroids confer a risk to the fetus, and, if so, what is the risk? This clinical situation was, in part, the rationale behind the study by Chi and colleagues (2011, this issue), who utilized two clinical and administrative databases in the United Kingdom (the UK General Practice Research Database and a pregnancy-specific Mother–Baby Link data set) to address this question. Previous studies were limited by sample size and other data issues, leading to inconclusive results (Chi *et al.*, 2010).

The most studied systemic steroid in pregnancy is dexamethasone, used antenatally for lung maturation in preterm infants and to prevent congenital adrenal hyperplasia in at-risk fetuses (Seckl, 2004). In these contexts, a single dose of systemic synthetic corticosteroids reduces infant mortality, intraventricular hemorrhage, and neurological and developmental issues; however, infants who received multiple courses of corticosteroids have an increased risk of neonatal sepsis and decreased head circumference, weight, breathing rate, and heart rate (Mariotti *et al.*, 2004). Animal studies have revealed similar findings (Jobe *et al.*, 1998).

In this issue, Chi *et al.* (2011) report that the use of potent or super potent topical corticosteroids in women during pregnancy was associated with a significantly increased risk of giving birth to low-birth-weight infants, but use of these topical corticosteroids was not associated with orofacial cleft, preterm delivery, or fetal death. Although the results of this work, which involved the evaluation of the outcomes of tens of thousands of pregnant women exposed to topical corticosteroids, are informative, the retrospective nature of the database and the assumptions made suggest that further exploration of these relationships is warranted. Through the following questions, we examine this paper in greater detail. For brief answers, please refer to the supplementary information online <<http://www.nature.com/jid/journal/v131/n4/supinfo/jid201125s1.html>>.

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QUESTIONS

1. What was the rationale for conducting this study?
2. How do systemic steroids affect pregnancy?
3. How did the investigators carry out their study?
4. What were the results of the study?
5. What were the conclusions and clinical implications of the study?

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