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Breastfeeding and oxycodone

To the Editor:

We read with interest the retrospective study by Lam et al,[1] in which the authors set out to quantify the central nervous system depression observed in neonates breastfed by mothers taking oxycodone, codeine, or acetaminophen. Given the multiple reports of infant death in the setting of being breastfed by mothers taking codeine,[2,3] the increased potency of oxycodone compared with codeine at the mu opioid receptor, and fact that oxycodone is transferred into breast milk, the question posed by this group deserves serious attention. We commend their efforts but respectfully identify concerns in their methodology that question the validity of their conclusion that maternal oxycodone consumption is associated with infant central nervous system depression.

We note the potential for significant recall bias when mothers are questioned multiple years after their inquiry to the Motherisk Program. The women in this cohort demonstrated their concern a priori by soliciting drug safety information at the outset and were likely informed that opioids do transfer into breast milk. Their recollection at a much later date regarding whether their infant seemed "sleepy" or "lethargic" is therefore not an unbiased endpoint, nor is it clinically objective. Detection of infant urine oxycodone metabolite or determining the number of hours slept per day, for example, would provide more quantitative data, while identifying the respiratory rate would highlight the consequential issue of respiratory depression. Given that opioid use for obstetric pain while breastfeeding is not a rare event and the unanimous goal of the health care community is to protect infants from deleterious drug effects, this issue deserves to be studied in a prospective fashion with objective and clinically meaningful endpoints.

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Reply

To the Editor:

We would like to thank Rivers et al for their interest in our work. In our study, we compared the maternal reports of central nervous system (CNS) depression in breastfed infants exposed to oxycodone with those exposed to codeine or acetaminophen alone. Rivers et al raise a concern about the potential for recall bias in this study and suggested the need for quantitative data, such as "detection of infant urine oxycodone metabolite or determining the number of hours slept per day." A closer examination of our study will reveal that we did indeed collect and report the number of hours that breastfed infants slept (Table VI). Furthermore, recall bias was controlled in our study design by the use of a non–opioid-exposure group—the acetaminophen cohort. Given that acetaminophen is not expected to result in neonatal CNS depression from a pharmacological standpoint, reports of CNS depression from mothers whose breastfed infants were exposed to only acetaminophen represent the baseline rates of CNS depression based on maternal report. This rate was determined to be 0.5%.

All mothers in the reported study were followed up within 1 year after their original call. We agree with Rivers et al that the ideal study would be prospectively designed. However, the clinical reality is that mothers and infants are released from the hospital shortly after birth, and the onus is on parents to observe for signs and symptoms of neonatal CNS depression in their breastfed babies.

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