

Asthma Drugs Are Used Less During Pregnancy

BY KATE JOHNSON
Montreal Bureau

SAN ANTONIO — Pregnant women with asthma take less asthma medication than do nonpregnant women with asthma, according to a new study that did not measure the effect of the medication reduction.

"Whether they stopped taking their medications because their symptoms improved, or whether they were reluctant to take their medications, we don't know," lead investigator Ami Degala, M.D., told this newspaper.

Research shows that among women with asthma, about one-third get better during pregnancy. In addition, asthma symptoms worsen in one-third and remain the same in another third. But physicians and pregnant women alike are often conservative with asthma medication during pregnancy to avoid overexposing the fetus, said Dr. Degala, a fellow in allergy and clinical immunology at Henry Ford Hospital in Detroit.

In her study, which was presented as a poster at the annual meeting of the American Academy of Asthma, Allergy, and Immunology, the asthma medication refill habits of 240 women with asthma were observed for a 1-year surveillance period.

After this time, the refill habits of 80 women who became pregnant were compared during the last two trimesters with the refill habits of 160 nonpregnant par-

ticipants who were assigned matched delivery dates.

Among women who did not take their controller medication during the surveillance period, only 9% started taking the medication when they became pregnant, compared with 22% of the nonpregnant controls during this same period. And 25% of the pregnant women used their rescue medication, compared with 59% of controls.

Undertreatment of asthma during pregnancy actually can increase fetal and maternal risks, such as hypoxia, perinatal mortality, and low birth weight.

A similar pattern was seen among women who did take their controller medication during the surveillance period, with only 33% of pregnant women continuing their controller medications, compared with 59% of controls, and 52% of pregnant women continuing their rescue medications, compared with 62% of controls.

Overall, there was a statistically significant difference between pregnant women and controls in the reduction in medication between the surveillance and pregnancy periods. Medication refills were reduced by 43% in pregnant women over this period, while they were reduced by 15% in controls.

Although there is evidence that oral corticosteroids can have adverse effects on the fetus, there is no such evidence for β -agonists, inhaled corticosteroids, or even theophylline, Dr. Degala said.

In contrast, there is evidence of both fetal and maternal risks in undertreating asthma.

"There's a risk of fetal and maternal hypoxia, and studies also show an increased risk of perinatal mortality and low birth weight," she said. ■

Occupational Factors Don't Raise Risk of Recurrent Preterm Birth

RENO, NEV. — The risk of preterm birth is not increased by occupational factors, including hours worked outside the home and jobs requiring physical exertion, Patricia C. Santiago-Munoz, M.D., and colleagues reported in a poster presentation.

These conclusions were based on a large, prospective cohort study involving 1,434 women with prior preterm births who were referred to a specialty clinic, said the researchers from the University of Texas Southwestern Medical Center in Dallas. There, the women participated in a structured interview regarding their obstetric history, their socioeconomic background, and their work outside the home. The findings were presented at the annual meeting of the Society for Maternal-Fetal Medicine.

Other studies have reached conflicting conclusions regarding the risk of outside employment. Some studies have found associations between physically demand-

ing work and preterm birth, while others have found no such associations.

Of the 1,434 women who participated in the study, 25% worked outside the home, and 14% experienced a recurrent preterm birth, defined as a birth at 35 weeks' gestation or less.

There was no significant difference in the risk of preterm birth among women who worked outside the home and those who did not. Among those women who worked outside the home, there was no significant difference in the risk of preterm birth among the women who had physically demanding jobs and those who did not. Nor was there a significant relationship between the number of hours worked and the likelihood of preterm birth.

Furthermore, the lack of help inside the home did not increase a patient's risk, and that risk did not vary along with the number of children cared for in the home.

—Robert Finn

DRUGS, PREGNANCY, AND LACTATION

Ginger

Ginger in many forms is taken by pregnant women, with the hopes of alleviating the nausea and vomiting of pregnancy. These forms range from ginger tea, cookies, crystals, and sugars to inhaled powder and capsules containing ginger.

In a recently published metaanalysis of studies on ginger's use as an antiemetic during pregnancy published last month, the authors concluded that the cumulative experience suggests that the herbal supplement may be safe and effective for managing the nausea and vomiting of pregnancy (NVP). They noted, however, that more observational studies and larger randomized trials were needed before a definitive statement on safety could be made (*Obstet. Gynecol.* 2005;105:849-56).

The metaanalysis included six double-blind randomized controlled clinical trials of almost 700 women and an observational study that my colleagues and I conducted on 187 women taking ginger (*Am. J. Obstet. Gynecol.* 2003; 189:1374-7).

This is the first metaanalysis of studies on the use of ginger as an antiemetic during pregnancy. In the six randomized controlled trials, 500-1,500 mg daily of ginger were used for 3 days to 3 weeks in women who were at less than 20 weeks' gestation.

In four trials, ginger was more effective than placebo in controlling symptoms of NVP, and in the two remaining trials, ginger was as effective as vitamin B₆ although I would add that vitamin B₆—when used alone—is effective mostly for mild cases of NVP.

No serious adverse effects or pregnancy-related problems were detected in the five studies that looked at safety. The outcomes evaluated in the randomized trials included prepartum hemorrhage, preeclampsia, preterm birth, congenital abnormalities, major malformations, perinatal and neonatal death, birth weights, and gestational age.

In the prospective observational study, we looked primarily at fetal safety, comparing outcomes in 187 pregnant women who took ginger in the first trimester with another 187 women who during the first trimester took drugs known to be nonteratogenic. With one exception, we found no significant differences in adverse pregnancy outcomes between the two groups. The exception was that there were significantly more infants with birth weights of less than 2,500 g in the comparison group (6.4% vs 1.6% in the ginger group), even though there were eight pairs of twins in the ginger group. There were two major malformations in the comparison group, and three in the ginger group (a ventricular septal defect, right lung ab-

normality, and a kidney abnormality). At age 2, the daughter of a mother who took 1,000 mg of ginger a day from weeks 11 to 20 of gestation, as well as doxylamine/vitamin B₆ in the first trimester, was diagnosed with idiopathic central precocious puberty. This may be a random finding.

In a subgroup of 66 women, we evaluated the effectiveness of ginger by asking them to rank from 0 to 10 how well ginger controlled NVP, with 0 as no effect and 10 as a maximal effect. The mean score was 3.3, not a very strong effect. Moreover, when we considered response by the form of ginger used (teas, lozenges, and other preparations), only the capsules containing ginger were associated with an effect significantly greater than zero.

Our observational study put effectiveness against placebo into context: While it is helpful to show in randomized controlled trials that ginger has a better antiemetic effect than placebo, the effect is very mild. There are other options for managing NVP. In Canada, those include Diclectin (the combination of the antihistamine/anticholinergic doxylamine and vitamin B₆, equivalent to Bendectin), which results in higher scores of about 5-6 on this scale. Ginger is a very mild antiemetic; only certain formulations seem to be better than placebo. Teas, lozenges, and other sources of ginger are likely no better than placebo.

Many pregnant women are much more comfortable taking a natural product than a medication because of the perception that natural products are safer. But they should be aware that these products are not necessarily as effective as medicinal products, which in the United States and Canada include ondansetron and metoclopramide.

At Motherisk, we advise women who call about ginger that it is probably safe and may help ease mild NVP, but it is unlikely to help with moderate to severe NVP. Women should also be aware that since there are many formulations of ginger, the amount of ginger in a given form is almost never certain. This is because natural products are not regulated with the same scrutiny as drugs. ■

DR. KOREN is professor of pediatrics, pharmacology, pharmacy, medicine, and medical genetics at the University of Toronto, and holds the Ivey Chair in Molecular Toxicology at the University of Western Ontario, London. He heads the Research Leadership in Better Pharmacotherapy During Pregnancy and Lactation at the Hospital for Sick Children, Toronto, where he serves as director of the Motherisk Program (www.motherisk.org).



BY GIDEON KOREN, M.D.