High Vitamin E in Pregnancy Lowers Asthma Risk in Kids

Children whose mothers consumed the highest levels of vitamin E during pregnancy had less asthma and wheezing than did their peers whose mothers consumed less vitamin E while pregnant, according to findings from a cohort study.

Dr. Graham Devereux and colleagues from the University of Aberdeen (Scotland) found that 9,518 pregnant women with the highest intake of vitamin E during pregnancy had the lowest incidence of wheezing, physical visit for wheezing, and asthma, and both suspected and physician-diagnosed asthma (Am. J. Respir. Crit. Care Med. 2006;174:499-507).

A 2,000 expectant mothers was initially recruited in 1997 and 1999 from prenatal clinics, at a median of 12 weeks’ gestation. A total of 1,838 women completed the study, including 1,120 women who responded to this questionnaire filled out an additional FFQ based on the diet, and parents of 797 children accepted a questionnaire to take the child to the hospital for spirometry, skin-prick testing, and fraction of exhaled nitric oxide measurement. A total of 1,106 children born to mothers with the lowest quintile of vitamin E intake [were] 3.47 times more likely to be persistent wheezing phenotype than [were] children born to mothers with the highest quintile of vitamin E intake, ” the investigators wrote.

They had reported an association between maternal vitamin E intake during pregnancy and asthma at age 2 years in the same cohort.

—John R. Bell

LISSON — Intravenous diazoxide was as safe and effective as intravenous hydralazine in treating hypertensive crises during pregnancy in a study with 124 patients. Diazoxide has the advantage of working very quickly, and it may be a good option for physicians who are uncomfortable with hydralazine.

Dr. Annemarie Hennessy said at the 15th World Congress of the International Society for the Study of Hypertension in Medicine. Intravenous β-blockers, another option for physicians in the United States, are not approved for use in Australia.

Women with severe hypertension at Royal Prince Alfred Hospital in Sydney were randomized so that 63 were assigned to treatment with diazoxide and 61 were scheduled to receive hydralazine. Treatment was actually administered to 59 women in the diazoxide group and 51 women in the hydralazine group, said Dr. Hennessy, a nephrologist at the University of Sydney and managing director of the prereception laboratory research at the hospital. The dosage used for diazoxide was a 15-mg bolus administered every 3 minutes to a maximum of 300 mg. In the hydralazine group, patients received 5 mg every 20 minutes to a maximum of 15 mg. The study’s primary end point was the need for cesarean section because of fetal deterioration as determined by cardiotocography.

The cesarean section rate was 76% in the hydralazine group and 76% in the diazoxide group, not a statistically significant difference. The average time to reach target blood pressure was 34 minutes in the hydralazine group and 19 minutes in the diazoxide group, a statistically significant difference. There was one episode of severe hypertension in the hydralazine group and none in the diazoxide group. The incidence of other adverse events was 11% in both groups.

Dr. Hennessy attributed the absence of diazoxide-related hypertensive episodes in this study to the use of 15-mg boluses, which produced a controlled reduction in blood pressure.