

Older Moms' Prenatal Alcohol Use Hurts Growth

BY BETSY BATES
Los Angeles Bureau

SANTA BARBARA, CALIF. — Children of older mothers who drank during pregnancy were shorter and had smaller head circumferences at ages 7 and 14 years than other children at those ages, it was reported at the annual meeting of the Research Society on Alcoholism.

Children of mothers who were 30 or older at delivery were affected above a threshold of moderate alcohol consumption, defined as about one alcoholic drink a day at the time of conception.

Many women reduced their drinking during pregnancy, but the heaviest drinkers reduced their drinking less.

"Even if women reduce their drinking during pregnancy, their early drinking before they realize they are pregnant may have an impact on the infant," said Sandra W. Jacobson, Ph.D., professor of psychiatry and behavioral neurosciences at Wayne State University in Detroit, a senior author on the study.

"We see effects in infants whose moth-

ers drink as little as one drink/day."

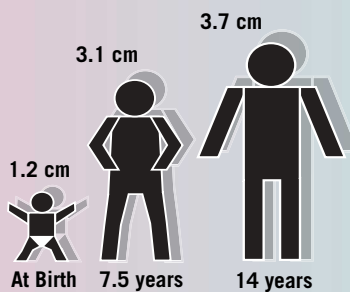
Dr. Jacobson stressed that "average" drinks per day did not reflect actual drinking patterns among women in the study. Just 1 woman of 480 in the Detroit Longitudinal Prenatal Alcohol Exposure study drank daily.

Many of the others concentrated their drinking on 1-2 days a week, in some cases drinking three to four drinks at each session, she explained following the meeting.

Mean alcohol consumption at conception was two drinks per day in the study of economically disadvantaged African American women and their children.

Mean alcohol intake dropped during pregnancy to a little more than two drinks per week.

Prenatal Alcohol Exposure Linked to Height Deficit



Note: Children of older women with moderate alcohol consumption at conception were shorter than children of older women with minimal alcohol use.
Source: Dr. Jacobson

Prenatal alcohol exposure was associated with lower birthweight and length in the entire sample of women, even after researchers controlled for smoking and other possible confounders.

For mothers over 30 at conception, the repercussions were long lasting. With a cutoff point of 0.5 ounces of alcohol per day at conception, older mothers' children were 1.2 cm, 3.1 cm, and 3.7 cm shorter at birth, 7.5

years, and 14 years, respectively, than children of mothers with minimal exposure.

Their mean head circumference was smaller by 4.6 mm, 7.3 mm, and 14.5 mm at birth, 7.5 years, and 14 years.

"Prenatal alcohol exposure was not related to weight or body mass index at 7.5 or 14 years, suggesting that the effects on

height and head circumference were not attributable to poor maternal nutrition," the researchers reported in their poster presentation.

Smoking during pregnancy resulted in lower birthweight and reduced length and head circumference at birth, but had no discernible impact on children's growth over time.

In contrast, prenatal alcohol exposure's impact on size was evident at birth and became magnified over time.

Although the study suggests that children of older mothers are most vulnerable to prenatal alcohol exposure, all women considering pregnancy should be urged to stop drinking or to cut down as much as possible. "At this time, no drinking is considered safe," said Dr. Jacobson.

The study was supported by grants from the National Institute on Alcohol Abuse and Alcoholism and the Joseph Young, Sr., Fund of Michigan.

Douglas Fuller, a research assistant in the Wayne State University department of psychiatry and behavioral neurosciences, contributed to the study. ■

Chorioamnionitis With PPRM Is Linked to Adverse Outcomes Risk

BY SHARON WORCESTER
Southeast Bureau

CHARLESTON, S.C. — The development of chorioamnionitis in patients with preterm premature rupture of membranes is associated with an increased risk for adverse neonatal outcomes, Natali Aziz, M.D., reported at the annual meeting of the Infectious Diseases Society for Obstetrics and Gynecology.

In a retrospective cohort study of 1,153 patients who gave birth between 1980 and 2001 with a diagnosis of preterm premature rupture of membranes (PPROM) made at 24 to 34 weeks' gestation, 29% were diagnosed with chorioamnionitis before delivery.

Univariate outcomes on a variety of measures—such as Apgar scores and incidence of respiratory distress syndrome, intracerebral hemorrhage, and pneumonia—were significantly poorer in neonates born to mothers with chorioamnionitis, compared with those born to mothers without chorioamnionitis, said Dr. Aziz of the University of California, San Francisco.

"Management in this setting is better examined prospectively in a randomized, controlled trial, yet given these data, when managing a patient with preterm premature rupture of membranes we must weigh the risks of prematurity against those of expectant management with the ongoing possi-

bility of development of chorioamnionitis," she said.

Differences were noted in the rates of chorioamnionitis based on gestational age at the time of rupture of membranes (rate of 46% at gestational age of 24-25 weeks vs. 18% at 32 weeks or greater) and duration of latency (higher rates in those with latency greater than 48 hours). Subgroup analyses to adjust for these factors were performed. Many clinical differences remained, but statistical significance was lost due to smaller sample sizes.

In the subgroup analysis based on gestational age at time of rupture of membranes (grouped in 2-week intervals), nonnecrotizing enterocolitis was more common among those with chorioamnionitis in the 24- to 25-week subgroup, intracranial hemorrhage was more common among those with chorioamnionitis in the 30- to 31-week subgroup, and pneumonia was more common among those with chorioamnionitis in the 32-week or greater subgroup.

In a model adjusted for gestational age at the time of ruptured membranes, duration of latency, and use of betamethasone, the chorioamniotic group had significantly higher incidences of intracranial hemorrhage, pneumonia, hyperbilirubinemia, and a neonatal composite variable, including intracranial hemorrhage, pneumonia, and sepsis. ■

Endothelial Dysfunction Remains 1 Year After Preeclamptic Pregnancy

STOCKHOLM — Marked maternal endothelial dysfunction remains present a full year after a preeclamptic pregnancy, Maria J. Eriksson, M.D., Ph.D., reported at the annual congress of the European Society of Cardiology.

One year post partum, women with a history of preeclampsia have significantly higher blood pressure and fasting insulin and blood glucose levels than healthy controls who had a normal pregnancy. These physiologic and metabolic abnormalities help explain the association between preeclampsia and increased risk of cardiovascular disease, said Dr. Eriksson of Karolinska University, Stockholm.

She presented a 1-year follow-up on 18 women who had moderate to severe preeclampsia in their first pregnancy and 17 age-matched controls with an uncomplicated pregnancy.

Brachial artery flow-mediated vasodilation as assessed by ultrasound—a standard noninvasive tool for the identification of endothelial dysfunction—was 2.5% in women with a history of preeclampsia, compared with 10.3% in controls. Flow-mediated dilation measured 1 year post preg-

nancy correlated directly with birth weight and gestational age, and inversely with maximum systolic blood pressure in pregnancy. But it is unclear whether this endothelial dysfunction was induced by the preeclamptic process or reflected a predisposition to it.

Twenty-four hour ambulatory blood pressure monitoring demonstrated that average daytime blood pressures in women 1 year post preeclampsia were 123/81 mm Hg, compared with 116/76 mm Hg in controls. Mean arterial pressure averaged 95 mm Hg in formerly preeclamptic subjects and 90 mm Hg in controls.

Fasting insulin and blood glucose was 4.6 mmol/L and 46 pmol/L, respectively, in women with a history of preeclampsia, compared with 4.4 mmol/L and 30 pmol/L in controls, suggesting insulin resistance as a therapeutic target for prevention of recurrent preeclampsia.

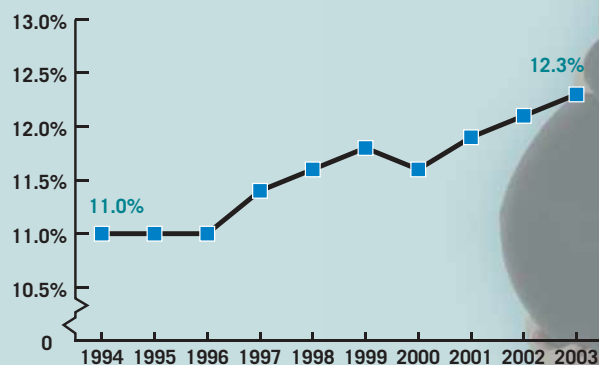
There were no significant differences between the two groups in terms of blood lipids. Nor did they differ in terms of levels of inflammatory markers or hemostatic factors.

—Bruce Jancin

DATA WATCH

Preterm Births on the Rise

Percentage of all live births that are preterm



Notes: Based on 100% of the birth certificates registered in all states and the District of Columbia. Preterm defined as less than 37 weeks' gestation.
Source: Centers for Disease Control and Prevention