Gum Disease Again Tied to Pregnancy Outcomes

Some women with periodontal disease in the study had low-birth-weight babies or preterm babies.

BY JANE SALODOF MACNEIL
Southwest Bureau

LOS ANGELES — A small study adds to the growing body of evidence implicating periodontal disease in poor pregnancy outcomes.

Twelve percent of the women with periodontal disease had low-birth-weight babies in a 277-patient observational study.

In comparison, only 2% of women with healthy gums had small babies, a statistically significant difference.

The data were presented in poster form at the annual meeting of the Society for Gynecologic Investigation.

The women with periodontal disease also had a higher incidence of preterm births (7% vs. 3%) but Alexis L. Shub, M.D., an investigator in the study, said this difference was not statistically significant.

About 15% of women in the study had periodontal disease.

An updated analysis completed just before the meeting also found higher rates of tumor necrosis factor–α in the cord blood of women with periodontal disease, Dr. Shub, an obstetrician at the University of Western Australia in Perth, said in an interview.

These data were not included in the poster presentation, she noted, adding that the findings suggest an ongoing inflammatory process in these women and their fetuses.

John P. Newnham, M.D., the study's lead author and director of the Women and Infants Research Foundation at King Edward Memorial Hospital in Perth, said in an interview that he is also working on a large, randomized controlled trial to study this issue.

The investigators have begun to divide 1,000 pregnant women with periodontal disease into two cohorts: one given periodontal care during pregnancy and the other afterward.

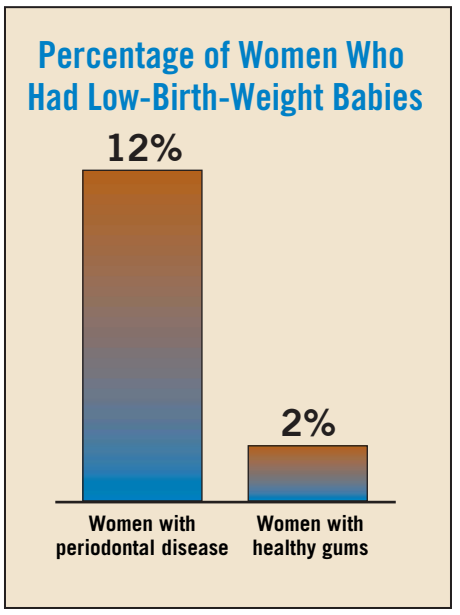
The trial's primary outcomes will be preterm birth, fetal growth, and preeclampsia.

He said the investigators are concerned that heightened awareness of possible harm from periodontal disease could skew outcomes.

The investiagators suspect that screening patients for periodontal disease in the observational study led to better dental care.

The preterm birth rates were expected to be about 11%, according to Dr. Newnham, who also plans to monitor pregnancy outcomes and prenatal care in a region-wide medical database.

"The exciting thing is that it is possible that a simple community-based public health intervention could have a profound impact on the need for expensive high-tech hospital resources," Dr. Newnham commented. ■



Eclampsia Usually Occurs Late in Pregnancy

BY CARL SHERMAN
Contributing Writer

NEW YORK — Eclampsia has become increasingly rare in Western countries, but it still occurs in 1 in 2,000-3,500 pregnancies—and obstetric clinics must be prepared to treat it, Baha M. Sibai, M.D., said at an obstetrics symposium sponsored by Columbia University and New York Presbyterian Hospital.

Although most episodes occur late in pregnancy, an increasing number occur more than 2 days after delivery, and patients should be counseled accordingly, said Dr. Sibai, professor and chairman of the obstetrics and gynecology department at the University of Cincinnati.

Eclampsia does not always come with a warning. It has been reported that in 15%-20% of cases neither hypertension nor proteinuria has occurred.

"Most women with eclampsia have had good prenatal care," Dr. Sibai said. In a 1992 U.K. study of 383 women, 85% had been seen by a medical care provider within a week before the episode.

Eclampsia is largely a late event: In a sample of 399 U.S. women, the episode occurred after the 32nd week of gestation in 72%, and before week 28 in roughly 10%.

In a substantial number of cases—28%, in the U.S. study—the condition developed after delivery; in two-thirds of these cases, it happened more than 48 hours later.

"More and more, the onset of convulsions is in the postpartum period. We've done an excellent job educating women to report signs and symptoms during pregnancy, but a poor one in educating them that they can have eclampsia after leaving the hospital," Dr. Sibai said.

The lapse can have medicolegal implications, he said.

Emergency management of eclampsia should focus on protecting the mother from injury (e.g., cushioning extremities and preventing a fall off the bed), ensuring adequate oxygenation, and preventing aspiration. Once these are addressed, steps should be taken to avoid recurrent convulsions.

"Never give anything to stop the convulsion: No one dies from a seizure, and you could do damage if you give the wrong dose," Dr. Sibai said.

Most seizures are self-limiting, and medications to contain them may depress respiration.

Hypertension should be the next concern, and then delivery. "[It] should be the last thing on your mind," he said.

'More and more, the onset of convulsions is in the postpartum period.' In two-thirds of cases in one study, it was more than 48 hours after delivery.

If hypoxemia develops, 8-10 L/min of supplementary oxygen should be supplied by face mask, and pulse oximetry monitored. Sodium bicarbonate may be required for acidemia.

To prevent further convulsions, begin IV magnesium sulfate with a loading dose of 6 g over a 20-minute period, followed by maintenance at 2 g/hour. The anticonvulsants diazepam and phenytoin, which can depress respiration and compromise alveolar reflexes, carry a higher mortality rate and should be avoided.

"Don't listen to what the neurologist or internist tells you to do," Dr. Sibai said.

The risk of magnesium toxicity should be kept in mind: Look for such signs of rising serum levels as double vision, a feeling of warmth or flushing, and lethargy; monitor patellar reflexes hourly. "Always talk to the patient. Slurred speech shows paralysis of the muscles of the jaw," he said.

Magnesium sulfate should be discontinued immediately while a blood level is taken, and restarted with appropriate adjustments. If serum magnesium is above 15 mg/dL—a level that threatens respiratory and cardiac arrest—1 g of calcium gluconate should be given intravenously and intubation and assisted ventilation provided if necessary.

For control of severe hypertension, labetalol and nifedipine are drugs of choice; hydralazine should be avoided, he said.

When possible, delivery should be done within 24 hours. Cesarean delivery is not always necessary, and vaginal delivery can be done with epidural or spinal anesthesia.

Fluid management is important at this time: 100-125 mL/hr of balanced salt solution should help the patient avoid both pulmonary edema and dehydration.

"Don't look at the fetal heart tracing during or immediately after the seizure: allow 10-15 minutes for the fetus to recover," Dr. Sibai said.

Persistent changes like bradycardia and variable or late decelerations suggest poor fetal reserve or abruptio placentae, and indicate the need for cesarean delivery. ■

Preeclampsia Presentation Depends On Race, Ethnicity

RENO, NEV. — A retrospective study examining 473 pregnancies complicated by preeclampsia has uncovered several significant racial and ethnic differences in the expression of the disorder.

African American women with preeclampsia tend to have more severe hypertension and more often require antihypertensive medication than the population at large, according to a poster presentation by Amy Goodwin, M.D., of Case Western Reserve University, Cleveland, and her associates at the annual meeting of the Society for Maternal-Fetal Medicine.

While 37% of the full sample had severe hypertension at diagnosis, 45% of African American women had severe hypertension.

African American women were also significantly more likely to require antihypertensive medication intrapartum (12% vs. 8.8%), postpartum (18% vs. 13%), and at discharge (35% vs. 27%).

Non-Hispanic white women more frequently manifest severe hypertension with hemolysis, elevated liver enzymes, and low platelet count (HELLP) syndrome. While 24% of the full sample exhibited HELLP, the rate among white women was 30%.

Hispanic women tend to present with preeclampsia later in gestation and with less severe disease than the rest of the population. They presented at a mean of 36 weeks of gestation vs. 34.4 weeks for the rest of the population, and a smaller proportion of them exhibited severe hypertension at diagnosis (27% vs. 37%).

The study found no significant differences by race or ethnicity in a number of other factors including proteinuria, eclampsia, intrauterine fetal distress, intrauterine growth retardation, abruption, and recurrent preeclampsia, they said.

—Robert Finn