Women With Perinatal HIV Have Successful Pregnancies

BY DOUG BRUNK

SAN DIEGO — Women who acquire HIV perinatally have pregnancy outcomes that are on a par with those who acquire HIV later in life, results from a small single-center study suggest.

“This is a relatively new group of young mothers, and not much is known about how they do in pregnancy,” Dr. Tania Kasdaglis said in an interview during a poster session at the annual meeting of the Society for Maternal-Fetal Medicine. Many may assume “that perinatally infected HIV patients might have poorer pregnancy outcomes because they have had HIV longer or because their immune systems have been tried since they were born, but in fact they do very well.”

She and her colleagues in the department of obstetrics, gynecology, and reproductive sciences at the University of Maryland, Baltimore, studied women receiving prenatal care at the university’s HIV clinic between 1997 and 2008. On a 1:1 basis they matched perinatally infected women with those who acquired HIV after childhood for age, race, and prepregnancy body mass index. Both groups had access to prenatal care, were on highly active antiretroviral therapy (HAART) compared with controls, said Dr. Kasdaglis, a first-year maternal-fetal medicine fellow at the university.

The study findings show that “perinatally infected HIV patients have good pregnancy outcomes that do not differ from [those of] women who acquire HIV later in life and have access to the same level of prenatal care,” concluded Dr. Kasdaglis, who report having no conflicts of interest.

Perinatally infected HIV pregnant patients have good pregnancy outcomes in this small study.

DR. KASDAGLIS

Oxytocin ‘Reasonable’ for Placental Management

BY DOUG BRUNK

SAN DIEGO — A single dose of intramuscular oxytocin achieved a significant reduction in the rate of placental retention in second-trimester medical termination, and was associated with a significant reduction in postpartum blood loss, results from a randomized, single-center study showed.

“Intramuscular oxytocin is a reasonable choice as a prophylactic ecboic for the third stage [of labor] following second-trimester medical pregnancy termination,” Dr. Jan E. Dickinson said at the annual meeting of the Society for Maternal-Fetal Medicine.

Placental retention is a frequent complication of prostaglandin pregnancy termination, occurring 30%-40% of the time, said Dr. Dickinson, associate professor of maternal-fetal medicine at the University of Western Australia School of Women’s and Infants’ Health, Crawley. Potential complications of placental retention include increased blood loss, infectious morbidity, operative complications, and increased requirement for blood transfusion.

However, current protocols for third-stage management vary, so she and her associates conducted a study intended to develop a third-stage management protocol that would minimize the incidence of placental retention and associated complications among 251 women undergoing pregnancy termination at the university with intravaginal misoprostol at 14-24 weeks. They randomized the women to one of three management strategies: 83 women to receive 10 units of intramuscular oxytocin after delivery of the fetus (group 1); 83 women to receive 600 mcg oral misoprostol after delivery of the fetus (group 2); and 85 women to receive no additional medication after delivery of the fetus (group 3).

The primary outcome was incidence of failure of placental expulsion within 60 minutes of fetal delivery, with the need for operative removal.

Dr. Dickinson, who had no conflicts to disclose, reported that there were no significant differences between the three groups in terms of maternal age (mean, 31 years), race (93% white), parity (mean, one), prior uterine surgery (mean, 20%), median gestational age at study recruitment (19 weeks), or duration of termination (mean, 17 hours). The researchers did observe a significant difference between the groups in the incidence of placental retention (10% in group 1, 29% in group 2, and 31% in group 3). Logistic regression analysis of placental retention rates revealed that the odds ratio between groups 1 and 3 was significant (OR, 0.24), but between groups 2 and 3 it was not (OR, 0.92). Calculated blood loss was significantly lower in group 1 compared with the other groups (100 mL vs. 200 mL in groups 2 and 3). There were no significant differences among groups 1, 2, and 3 in terms of duration of hospital stay (30 hours, 33 hours, and 29 hours, respectively), readmission (7%, 4%, and 9%), or need for curettage (4%, 2%, and 6%).

In a later interview, Dr. Dickinson said that for centers and countries with limited access to hospital facilities, this protocol potentially offers a simple and effective means to management of the third stage and improved safety for women with pregnancy loss in the second trimester.”

Pregnancy B₁₂ Levels Associated With Neural Tube Defects

BY ELIZABETH MECHCATIE

A low vitamin B₁₂ blood level was an independent and as significant risk factor for having a pregnancy affected by a neural tube defect in a study of Irish women, in what the authors say is the first study to examine the risk of the birth defect associated with maternal B₁₂ concentration.

Their results have public health implications in terms of possible fortification of grains with B₁₂, although more studies are needed to learn more about the safety of this approach and the optimal protective dose of B₁₂ in food, according to Anne M. Molloy, Ph.D., of Trinity College, Dublin and her associates.

The data indicated that most of the neural tube defect (NTD) risk was limited to maternal B₁₂ levels at approximately 230 ng/L or less, although the data suggested that the risk could be further lowered if the B₁₂ level was above 320-350 ng/L. Based on this, they recommended that women have a vitamin B₁₂ level above 300 ng/L before conceiving.

The other authors were from the Child Health Epidemiology Unit at the Health Research Board in Dublin; and the Eunice Kennedy Shriver National Institute of Child Health and Human Development at the National Institutes of Health and the National Human Genome Institute at NIH (Pediatrics 2009;123:917-23). Because the neural tube defect rate in Ireland is high, NIH and Irish researchers have worked together on NTD studies.

The study compared B₁₂ levels in stored blood samples of three groups of Irish women, at a median 15 weeks’ gestation, obtained between 1983 and 1990, before food was fortified with folic acid and when vitamin supplementation during pregnancy in Ireland was not common. Mandatory folic acid fortification of grains in the United States has been reported to have reduced the incidence of NTDs by as much as 78%. But folic acid cannot prevent all NTDs and low maternal B₁₂ has previously been associated with a risk of NTDs, the authors wrote.

The three groups were as follows: 95 women with a pregnancy affected by a NTD (mean age 27 years) and 265 controls with a normal pregnancy (mean age 28 years); 107 women who had had a previous pregnancy affected by an NTD but were pregnant again with an unaffected pregnancy (mean age 32 years); and 414 controls (mean age 28 years). When compared with controls, the B₁₂ levels were significantly lower among the women who had a pregnancy affected by a NTD, with levels below 250 ng/L associated with the greatest risk. The risk of having a NTD was three times greater among women with B₁₂ concentrations below 200 ng/L, compared with those whose levels were above 400 ng/L. The median B₁₂ concentrations among the affected women in all three groups were 13%-19% lower than those with unaffected pregnancies, a significant difference.

Since B₁₂ values were obtained at a median 15 weeks’ gestation, at which time the level naturally would have dropped by about 20%-25%, “our data indicate that women should aim to enter pregnancy” with serum B₁₂ concentrations above 100 ng/L, the authors concluded, adding that concentrations above 400 ng/L “might be desirable, although we found no statistically significant benefit,” for that value.

The researchers did an analysis to determine if the effects of B₁₂ and folate on NTD risk were independent of one another, which is found “between B₁₂ and folate,” they said. Mandatory fortification of grain products in the United States with folic acid, the synthetic version of the vitamin folate, has been reported to reduce NTD incidence by as much as 78%. But, “it is generally agreed that not all NTDs are preventable by folic acid.”

In a statement issued by NICHHD, Dr. James Mills, one of the authors and a senior investigator in the NICHHD’s division of epidemiology, statistics, and prevention research, pointed out that since dietary B₁₂ is contained in milk, poultry, and other animal sources, women who are on a strict vegan diet may be at an increased risk of an NTD. He also emphasized that women with gastrointestinal disorders who may not absorb an adequate amount of B₁₂ should consult with physicians before pregnancy, to ensure that they are getting enough of this vitamin.

The authors had no relevant disclosures.