Race May Affect Recurrent Preterm Birth Rates

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DALLAS — Contrary to some previous findings, race played a role in the rates of recurrent spontaneous preterm birth in a retrospective study of 847 women receiving 17α-hydroxyprogesterone caproate.

Black women had a significant doubling in the rate of recurrent spontaneous preterm birth (SPTB) at less than 32 weeks' gestation, compared with white women (10% vs. 5%), Dr. Edwin Guzman reported in a poster at the annual meeting of the Society for Maternal-Fetal Medicine. The odds ratio (OR) was 2.1.

While the overall rate of SPTB at less than 37 weeks did not differ by maternal race (34% vs. 33%), rates of preterm birth at less than 34 weeks (15% vs. 9%, OR 1.8), less than 30 weeks (8% vs. 3%, OR 2.8), and less than 28 weeks (7% vs. 2%, OR 4.9) were also significantly higher in black women compared with white women.

The purpose of the current study was to determine if response to 17P treatment differed by maternal race when it occurred in a real-world clinical setting.

Black race was the only maternal characteristic that was significantly different between the 86 women who delivered before 34 weeks and the 761 women who delivered at 34 weeks or more (27% vs. 17%, OR 1.8). Other variables analyzed included Medicaid status, 17α-hydroxyprogesterone caproate (17P) start between 21 and 26.9 weeks, more than one prior preterm delivery, less than 12 years of education, marital status, and current smoker.

At admission, the 151 black women were more likely than were the 696 white women to be younger (29 vs. 30 years), to be Medicaid beneficiaries (48% vs. 16.5%), to be unmarried (60% vs. 16%), to lack a high school education (14% vs. 7.5%), and to have had more than one prior preterm birth (43% vs. 24%). Clinical data were collected prospectively from high-risk women enrolled in an outpatient program from May 2004 through September 2006 who received weekly 250-mg injections of 17P.

Analyses of pregnancy outcomes by insurance type and maternal race showed that among 187 Medicaid recipients, black women had significantly higher rates of SPTB at less than 37 weeks (42% vs. 26%, OR 2.0), though the rates of SPTB at less than 34, 32, 30, and 28 weeks were similar for white and black women.

Among the 660 women with commercial insurance, while the overall rate of SPTB at less than 37 weeks was similar for white and black women, black women had significantly higher rates of recurrent SPTB at less than 34, 32, 30, and 28 weeks, reported Dr. Guzman of Saint Peter's University Hospital, New Brunswick, N.J.

There has been renewed interest in the use of 17P following publication of a randomized clinical trial of 17P versus placebo conducted by the Maternal-Fetal Medicine Units (MFMU) Network of the National Institute of Child Health and Human Development (N. Engl. J. Med. 2003; 348:2379-85). In contrast with previous studies of women with prior preterm delivery, a subgroup analysis of the MFMU data revealed no differences in the rate of recurrent preterm birth between black and white women receiving 17P.

Final data on U.S. births in 2004 showed that approximately 11.5% of white newborns and 18% of black newborns were born prematurely (Natl. Vital Stat. Rep. 2006;55:1-101). Black women having a prior preterm infant also have been shown to be at a higher risk for recurrent preterm birth than white women with a similar history (Am. J. Obstet. Gynecol. 2007;196: 131.e1-6).

The purpose of the current study was to determine if response to 17P treatment differed by maternal race when 17P administration occurred in a real-world clinical setting, reported Dr. Guzman, who disclosed no financial conflicts of interest and received no funding for the study.

In an interview, Dr. Guzman speculated that the difference in findings between the MFMU network study and his study may be related to differences in populations in terms of socioeconomic status and care received, and noted that further study is needed as progesterone is now the standard of care in women who have had a previous preterm birth. ■