Use of 17-hydroxyprogesterone doesn't reduce rate of preterm delivery or complications in twins

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In a study to be presented today at the Society for Maternal-Fetal Medicine's (SMFM) annual meeting, The Pregnancy Meeting, in San Francisco, researchers will present findings that show that the use of the hormone 17-Hydroxyprogesterone does not reduce the rate of preterm delivery or neonatal complications in twins.

The hormone 17-Hydroxyprogesterone is sometimes used to reduce the risk of preterm labor. In 2008, the American College of Obstetricians and Gynecologists and the Society for Maternal-Fetal Medicine issued an opinion that further studies were needed and that "based on current knowledge, it is important to offer progesterone for pregnancy prolongation to only women with a documented history of a previous spontaneous birth at less than 37 weeks of gestation."

"We chose to study the effects of progesterone on twin pregnancies since that group is at a high risk of preterm delivery and we are always looking for something that will reduce those risks," said C. Andrew Combs, M.D., one of the study's authors.

Combs and his colleagues conducted a placebo-controlled, double-blind, multicenter, randomized clinical trial. Mothers with diamnioticdichorionic twins were randomized to 17-alpha-hydroxyxprogesterone caproate (17P) (250 mg IM) or placebo (castor oil vehicle, 1 mL), starting at 16-23 weeks gestational age (GA), repeated

weekly until 34 weeks GA. A sample size of 240 mothers (480 babies) was calculated to give 80% power to detect reduction of composite neonatal morbidity from 45% with placebo to 30% with 17P.

One hundred and sixty mothers were randomized to 17P, 80 to placebo at mean GA of 20 weeks. The results showed that Baseline characteristics were similar between the groups. There was no significant difference in composite neonatal morbidity (14% with 17P vs. 12% with placebo), or in mean GA at delivery (35.3 wks vs. 35.9 wks), delivery

The study concludes that the use of 17P in twin pregnancies did not reduce the rate of preterm delivery or neonatal morbidity.

"We also noted that contrary to our previous study that showed an increased risk of pregnancy loss in triplet pregnancies treated with 17P, we had no deaths in the twins treated with 17P," said Combs. "However more studies are needed and it is clear that 17P should only be used with specific high risk pregnancy groups."

Provided by Society for Maternal-Fetal Medicine

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