MEETING NEWS

Metformin use during pregnancy reduces complications in PCOS

March 21, 2018

CHICAGO — Metformin use during pregnancy may decrease the combine risk for late miscarriage and preterm birth compared with placebo in women with polycystic ovary syndrome, according to a speaker here.

“Women with PCOS suffer from an increased risk of pregnancy complications, and during the last decade, a significant off-label use of metformin has developed to treat or prevent these pregnancy complications,” **Tone Shetelig Løvvik, MD,** a PhD student at the Norwegian University of Science and Technology in Trondheim, Norway, said during her presentation.

Løvvik and colleageus evaluated women with PCOS (approximate age, 30 years; approximate BMI, 28 kg/m^2) randomly assigned to metformin (n = 238) or placebo (n = 240) to determine the effect of each on the prevention of late miscarriage and preterm birth over a study period of 5 years. Participants were followed from the first trimester of pregnancy until delivery; the first woman was enrolled in October 2012 and the last delivery was in August 2017.

The combined prevalence of late miscarriage and preterm birth occurred in 14 participants in the metformin group and 24 in the placebo group in the intention-to-treat analysis. In the per protocol analysis, the combined prevalence occurred in 11 of 211 participants in the metformin group and 22 of 224 participants in the placebo group.

No differences were observed between the groups for gestational diabetes, preeclampsia or hypertension in pregnancy.

Weight gain during pregnancy was less in the metformin group compared with the placebo group (8.7 kg vs. 11.5 kg; $P < .001$).

Offspring weight and length did not differ between the two groups; however, head circumference was greater in the metformin group compared with the placebo group (35.4 cm vs. 34.7 cm; *P* = .03).

“We think that metformin during pregnancy does prevent late miscarriage and preterm birth if the study medication is taken, and [metformin] has no effect on gestational diabetes,” Løvvik said. “It caused less weight gain in pregnancy and gave larger head circumference to the offspring, but there was no difference for offspring weight or length.”

However, Løvvik added that the findings should not ignore the “elephant in the room” that showed that metformin had no effect on gestational diabetes.

“One out of four in our population developed gestational diabetes, but metformin had no effect on prevention, treatment or the need for additional insulin, indicating it was actually as sufficient as placebo,” she said. “Taking this into consideration, since metformin is not a part of the treatment for gestational diabetes according to many national guidelines, we think that it’s questionable that it’s never been tested against placebo for this diagnosis.” –
by Amber Cox

Reference:

Løvvik TS, et al. OR33-4. Presented at: The Endocrine Society Annual Meeting; March 17-20, 2018; Chicago.

Disclosures: The authors report no relevant financial disclosures.