

Can metformin limit weight gain in the obese with pregnancy?

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Background: Maternal overweight and obesity is associated with many obstetric complications. Obesity is linked to insulin resistance. Improving insulin sensitivity may therefore account for weight reduction. Metformin was found to be effective in type 2 diabetes and polycystic ovarian syndrome through improving insulin sensitivity. Several studies proved its efficacy in the obese non- pregnant, but its role during pregnancy is not yet well-established. In this study, we are testing the ability of metformin to limit weight gain with pregnancy and therefore reducing complications as gestational Diabetes and hypertension.

Methods: A prospective study was conducted in Alexandria, Egypt. The study was registered in the South African Cochrane Centre under an identification number PACTR201505001142202. Two Hundred participants with a BMI of ≥ 35 Kg/m², pregnant in the early second trimester, were equally divided into two groups; in which group 1 will receive metformin 500 mg twice a day and group 2 will receive placebo. Prior to inclusion, 75 g oral glucose tolerance test, fasting insulin, fasting blood glucose, 1 h and 2 h glucose blood and HbA1C were measured. Both groups were followed up monthly for weight and for pregnancy complications namely gestational diabetes and pre-eclampsia till 36 weeks of pregnancy.

Results: There was a significant difference in the weight gain and the one-hour blood sugar measurement between the two groups, but not in the occurrence of pregnancy complications namely gestational diabetes and hypertension.

Conclusions: Metformin succeeded to limit weight gain the obese with pregnancy.

Biography

Dr. Eman Abd Elfattah is a assistant professor of obstetrics and gynecology Alexandria faculty of medicine ,EGYPT since 2015. Lecturer of obstetrics and gynecology at the same faculty since 2012. Doctorate degree in high risk pregnancy and infertility 2012. Researcher in infertility and high-risk pregnancy since 2007. Researcher in feto-maternal medicine since 2002. Master's degree in obstetrics and gynecology 2000. Residant at El-shatby maternity university hospital from 1996 to 2000. Mbbch of medicine 1995.

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