

Session/Poster#

Presenter

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Polycystic Ovarian Syndrome and Obstetric Morbidity

Polycystic ovarian syndrome (PCOS) is a multisystem disorder impacting 5-20% of reproductive aged women with significant associations with infertility and adverse maternal outcomes. In this study we investigate the link between PCOS and gestational hypertensive disorders, gestational diabetes, neonatal mortality, rate of cesarean section (C/S), and preterm premature rupture of membranes (PPROM). We applied to access CDC Pregnancy Risk Assessment of Monitoring System data. We analyzed Standard Core and Phase 8 responses as well as data from Marijuana and Prescription Drug Use Survey with SPSS 28 software. Two variables assessed PCOS status in respondents: history of PCOS and PCOS during pregnancy. When history of PCOS is a risk factor, there were significantly increased odds of diabetes (OR 1.665; 95% CI 1.487 - 1.864) and hypertensive disorders (OR 1.589; 95% CI 1.430 to 1.766) during pregnancy. There were significantly higher odds of neonatal mortality (OR 1.550 95% CI 1.029 to 2.335), C/S (OR 1.489; 95% CI 1.269 - 1.747), and PPRM (OR 2.081; 95% 1.335 - 3.242). Using PCOS during pregnancy as a risk factor, there was a significantly greater odds of diabetes (OR 3.278; 95% 2.222 - 4.836) and hypertensive disorders (OR 2.935; 95% 2.003 - 4.302) during pregnancy. Association with C/S (OR 1.378; 95% 0.981 - 1.937) was not significant. Hypotheses between PCOS and preeclampsia is the deranged metabolic environment leading to altered placentation and endovascular changes, with possible DNA damage. Low-grade inflammation in PCOS increases PPRM risk. Elevated BMI is an independent risk factor for labor dystocia, leading to C/S. As progesterone levels increase in pregnancy, glucose uptake is reduced- risk of gestational diabetes increases. PCOS already increases risk for an insulin resistance state, which increases risk of neonatal mortality. PCOS patients should be counseled on these risks and more studies should be done to clarify how PCOS is related to these outcomes.