

P50. Comparing the risk of adverse pregnancy outcomes of Chinese polycystic ovary syndrome patients with and without anti-androgenic pretreatment

Y Li (CN) [1], X Ruan (CN) [2], H Wang (CN) [3], X Li (CN) [4], A O Mueck (DE) [5]

Context: Polycystic ovary syndrome (PCOS) is one of the most common endocrine and metabolic disorders, affecting 6% -15% women of reproductive age. PCOS women often cannot conceive naturally. They are more likely to suffer from disadvantageous conditions like miscarriage, gestational diabetes mellitus (GDM), pregnancy-induced hypertension (PIH) and premature delivery (PD) if they get pregnant. **Objective:** To evaluate the prevalence of adverse pregnancy outcomes in healthy Chinese women and to investigate if these outcomes can be decreased in polycystic ovary syndrome patients by pretreatment with ethinylestradiol/cyproterone acetate (EE/CPA).

Method: This is a retrospective study.

Patients: 6,000 healthy women (group A) were selected from 24,566 pregnant women by randomized sampling. 448 PCOS patients without EE/CPA pretreatment were assigned to group B. 222 PCOS patients with 3 months pretreatment with EE/CPA were included in group C.

Interventions: None

Main Outcome Measures: Gestational diabetes mellitus (GDM), pregnancy-induced hypertension (PIH), premature delivery (PD) and neonatal birth weight.

Results: The prevalence of GDM, PIH and PD were statistically significantly higher in group B than in group A and group C (GDM: 21.2% vs. 34.9% vs. 22.7%, $P=0.000$; PIH: 6.5% vs. 14.0% vs. 7.6%, $P=0.000$; PD: 5.4% vs. 8.6% vs. 6.8%, $P=0.018$). There was no statistical significance among the three groups in neonatal birth weight. Correlations between adverse pregnancy outcomes and group B and C, compared with group A, were evaluated, adjusting other factors including age, pre-gestational BMI, level of education, employment status. Compared to healthy women, PCOS without pretreatment increased the risk of GDM (OR 1.662; 95% CI 1.337-2.066), PIH (OR 1.482; 95% CI 1.090-2.016) and PD (OR 1.514; 95% CI 1.045-2.193). No increased risk was found in group C.

Conclusion: PCOS patients are more likely to develop GDM, PIH and PD. Pretreatment with EE/CPA was associated with a lower risk of GDM, PIH and PD.

[1] Beijing Obstetrics and Gynecology Hospital, Capital Medical University , [2] Beijing Obstetrics and Gynecology Hospital, Capital Medical University; Research Centre for Women's Health and University Women's Hospital of Tuebingen, University of Tuebingen , [3] Beijing Obstetrics and Gynecology Hospital, Capital Medical University , [4] Beijing Obstetrics and Gynecology Hospital, Capital Medical University , [5] Beijing Obstetrics and Gynecology Hospital, Capital Medical University; Research Centre for Women's Health and University Women's Hospital of Tuebingen, University of Tuebingen