



## **Progesterone treatment during pregnancy – is it a risk factor for gestational diabetes?**

Berezowsky A, Raban O, Aviram A, Wiznitzer A, Hadar E, Chen R  
Helen Schneider Hospital for Women, Rabin Medical Center, Petah Tikva, Israel

### **Objective**

The association between progestative treatment and the risk to develop gestational diabetes mellitus (GDM) is unclear. We aimed to evaluate the association between progestative treatment and development of GDM.

### **Methods**

Retrospective case control study of all women who delivered in a tertiary, university affiliated medical center from 2007 to 2015. Cohort was divided into two groups: group A) women who received progestative treatment adjacent to or during pregnancy; group B) women who did not receive progestative treatment. Gestational diabetes and impaired fasting glucose rates were calculated for the groups. Impaired fasting glucose was defined as an 3h-GTT with a single pathological value. An additional sub-analysis was performed according to trimester of initial progesterone administration (1st vs. 2nd trimester) and route of administration (intramuscular (IM) vs. vaginal (PV)).

### **Results**

Overall 5, 980 women were evaluated: 1686 (28%) in group A and 4112 (72%) in group B; 2) Groups were comparable regarding maternal and obstetrical baseline characteristics; 3) Group A demonstrated a higher trend towards developing gestational diabetes but this trend was not significant (9. 4% vs. 8. 7%,  $p=0. 35$ ); 4) Sub-analysis according to initial trimester of progesterone administration, first trimester, vs. second trimester vs. no administration showed no significant difference (10% vs. 8% and 8. 7%,  $p=0. 43$ ) ; 5) When performing a sub-analysis according to route of progesterone administration, IM vs. PV vs. no administration showed no significant difference (10% vs. 9% and 8. 7%,  $p=0. 64$ ).

### **Conclusion**

Women who receive progestative treatment adjacent to or during their pregnancy are not at a higher risk for developing gestational diabetes, regardless timing and route of administration.