

RESISTIN, ADIPONECTIN AND VISFATIN; CAN ADIPOCYTOKINES PREDICT GESTATIONAL DIABETES MELLITUS AND EARLY POST PARTUM METABOLIC SYNDROME?

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Aim: We investigated the association of three adipocytokines concentration, resistin, adiponectin and visfatin, with gestational diabetes mellitus(GDM) and early post partum metabolic syndrome.

Methods: In a case control study, 70 GDM patients and 76 healthy pregnant women were recruited from Endocrinology and Metabolism Research Center GDM Clinic. all participants followed up until 6-12 weeks after delivery. Circulatory resistin, adiponectin and visfatin were measured in pregnancy weeks 24-28.

Results: The concentrations of all three adipocytokines were significantly different between GDM patients and healthy pregnant women. Visfatin concentration was higher in GDM patients (10.62 ± 8.12 vs. 4.30 ± 4.00 ng/ml, $P < 0.01$). Adiponectin concentration was lower in GDM patients (9.07 ± 5.10 vs. 13.45 ± 8.53 μ g/ml, $P < 0.01$). Resistin concentration was also lower in GDM patients (5.04 ± 2.03 vs. 10.40 ± 3.63 ng/ml, $P < 0.01$). postpartum follow up showed that women developing metabolic syndrome had significantly lower adiponectin and resistin concentration during pregnancy. However visfatin concentration measured during pregnancy has no relation with postpartum developed metabolic syndrome. Indeed, after adjustment for age and pre-pregnancy BMI, logistic regression analysis did not show independent relation between adiponectin and resistin with development of postpartum metabolic syndrome.

Conclusion: Our results indicated that adipocytokines may associate with GDM and postpartum metabolic syndrome. However the efficacy of their measurement during pregnancy as a postpartum metabolic syndrome predictor is suspicious.