ΕΥΡΥΝΟΜΗ ΤΣΙΑΡΓΑΛΗ

“Πρόβλεψη της υπερτασικής νόσου της κύησης και της υπολειπόμενης εμβρυϊκής ανάπτυξης με τη μέτρηση του PlGF, της β-χοριακής γοναδοτροπίνης, του PAPP-A καθώς και της αντίστασης στις μητριαίες αρτηρίες, στο πρώτο τρίμηνο της κύησης”

Summary

Preeclampsia, intrauterine growth restriction (IUGR) and placental abruption - conditions that constitute the recently coined term of "ischemic placental disease" (IPD) - may share similar pathological and pathophysiological features, thus portending different clinical manifestations of a common underlying etiology as evidently shown by: (1) shared clinical risk factors, (2) increased recurrence risk across pregnancies as well as increased co-occurrence of IPD conditions within a pregnancy, and (3) findings that suggest the underlying pathophysiologic processes may be similar. Although the placenta is considered a fetal organ, these conditions can present clinically with either maternal or fetal manifestations, and are major contributors to both short- and long-term maternal and fetal morbidity and mortality. Retrospective observational studies comparing pregnancies complicated by ischemic placental disease to uncomplicated pregnancies suggest an increased long-term risk of hypertension, cardiovascular death, metabolic syndrome, and cerebrovascular disease. A synthesis of the findings of the relevant studies relating ischemic placental disease to adverse perinatal outcomes underscores two important observations. First, despite the low prevalence of each of the three obstetrical complications, all are associated with increased risks of adverse perinatal and infant outcomes, as well as neurodevelopmental deficits. Second, the burden of increased perinatal risks appears strongest during the preterm period. The differing clinical presentations by gestational age suggest different pathways between term and preterm births. This may reflect heterogeneous processes for IPD at early vs. late gestations, regardless of the effects of differing gestational age thresholds for interventions. It has been suggested that the underpinnings of IPD lie primarily in preterm gestations and that classification of these conditions based on the gestational age at onset will facilitate etiologic research. Since over half of the indicated preterm deliveries are due to IPD, accurate early prediction of the disease is of paramount importance in developing prevention strategies. While current studies report a statistical association between marker levels and various adverse perinatal outcomes, the observed diagnostic accuracy is below the threshold required for clinical utility. Metabolomics is a relatively new analytic platform that holds promise as a first-trimester marker for the prediction of both early- and late-onset preeclampsia.

Keywords: gestational age classification, ischemic placental disease, perinatal outcome, recurrence risk, risk factors