

## INTEGRATED ANTENATAL ASSESSMENT PROFILE FOR HYPERTENSIVE DISORDERS OF PREGNANCY. CAN THESE PREDICT THE OUTCOME FOR MOTHER AND BABY?

Hennesy. Annemarie

Vascular Immunology Research Group

Heart Research Institute

University of Sydney

Statewide Renal Services

Sydney



Risk profiling for hypertension in pregnancy involves obstetric, maternal and placental factors. There are high-risk profiles that relate to advanced renal disease and organ transplantation as well as some forms of chronic hypertension and glomerular disease. Many other risk factors for hypertension related to obstetric factors such as multiple gestation, prior obstetric history and molar pregnancy. The role of epidemiologically discovered risk factors such as body mass index, family history, parity, inter-pregnancy interval and partner status are more difficult to use as markers of individual risk.

Assessment of placental function is both a new and an old idea and current research has identified the cellular biology of the placenta in more detail. The immunological and cytokine functions of the placenta clearly contribute to maternal adaptation to pregnancy, including blood pressure regulation. The role of recently defined angiogenic factors and hypoxia regulated molecules look to be a major development in our capacity to define placental function in early pregnancy. The interaction of these molecular systems with placental cell processes such as apoptosis, and villous formation and invasion of the endometrium, may explain early placental failure in preeclampsia. The likely value of a predictive test is most challenging in the women with no prior obstetric history. A composite "scoring" of maternal factors, placental function tests, maternal immunological adaptability and possibly utero-placenta blood flow tests will be more likely to predict an individual case of preeclampsia than any test alone.

38<sup>th</sup> International Annual Meeting  
of the Society for the Study of the  
Pathophysiology of Pregnancy  
(Organization Gestosis)  
Sunday 5<sup>m</sup> to Tuesday 7<sup>in</sup> March 2006  
Stamford Plaza Hotel  
150 North Terrace Adelaide  
Presented from OGASH Web-Library  
TBILISI GEORGIA  
2006