ISSHP 2012 - Abstract Submission

Angiogenic factors (prediction to treatment)

ISSHP12-1158

ANTENATAL SFLT1 AND PLGF LEVELS AT 20-28 WEEKS OF GESTATION FOR PREDICTION OF THE OCCURRENCE OF PREECLAMPSIA: A PRELIMINARY REPORT

S. Jantarasaengaram [1,*], T. Tansatit [1], N. Samkhoompim [2]
[1]Maternal-fetal medicine unit, [2]Dept of Pathology, Rajavithi Hospital, College of Medicine, Rangsit University, Bangkok, Thailand

Introduction: Angiogenic and antiangiogenic factors substantially involve in the pathogenesis of preeclampsia. Levels of these biomarkers alter before the occurrence of disease.
Objectives: To determine the potential of using antenatal serum levels of soluble fms-like tyrosine kinase (sFlt1) and placental growth factor (PlGF) at 20-28 weeks of gestation for prediction of subsequent preeclampsia in non-selected population.

Methods: A reference range of serum sFlt1, PlGF level and sFlt1/PlGF ratio at 10- 42 weeks of gestation was determined from 291 healthy pregnant women using automated assays. Through antenatal visits at 20-28 weeks of gestation, serum of 1,689 women who had singleton pregnancy were obtained and frozen at -80 C. Serum of the mothers who subsequently develop preeclampsia were thawed and analyzed for sFlt1 and PlGF levels.

Results: At 48 hours postpartum, 21 of 1,689 mothers developed preeclampsia. Serum levels (mean $\pm$ SEM) of sFlt1, PlGF and sFlt1/PlGF ratio obtained at $20\text{-}23^{+6}$ weeks of gestation in preeclampsia (N=8) VS normal values were $1{,}845\pm 697$ VS 1807 ± 95 pg/ml, 339 ± 86 VS 542 ± 26 pg/ml and 33.9 ± 29.5 VS 4.1 ± 0.3 (P = 0.304, 0.051 and 0.561) respectively. Serum levels of sFlt1, PlGF and sFlt1/PlGF ratio obtained at $24\text{-}27^{+6}$ weeks of gestation in preeclampsia (N=13) VS normal values were $2{,}732\pm637$ VS 1576 ± 82 pg/ml, 449 ± 57 VS 718 ± 52 pg/ml and 8.9 ± 3.4 VS 2.6 ± 0.2 (P = 0.081, 0.006 and 0.017) respectively.

Conclusion: In non-selected population, automated assay of sFlt1 and PlGF levels and sFlt1/PlGF ratio during 20-28 weeks of gestation appear to have potential in prediction of the occurrence of preeclampsia.

Disclosure of Interest: None Declared

เสนอโดยนายสุรศักดิ์ จันทรแสงอร่าม นายแพทย์เชี่ยวชาญ โรงพยาบาลราชวิถี
ในการประชุมวิชาการ XVIII ISSHP World Congress 2012
ซึ่งจัดขึ้นระหว่างวันที่ ๙ – ๑๒ กรกฎาคม ๒๕๕๕ ณ สมาพันธรัฐสวิส