P1-1S-61  Hyperglycosylated hCG: a new test for early pregnancy detection

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[Objective] Hyperglycosylated hCG (hCG-H) is an hCG variant produced by phenotypically invasive cytotrophoblast cells in early pregnancy and in choriocarcinoma. We investigated the proportions of hCG-H produced at the time of early pregnant status. [Methods] This study was approved by the Human Research Review Committee in our facility and we were given the consent forms signed by each participant. Daily urine samples were collected from 110 women attempting to conceive spontaneously up to the achievement of pregnancy or throughout 5 sequential menstrual periods respectively, then 42 had pregnancies proceeding to term and 20 had failures. Total hCG and hCG-H were measured by chemiluminescent immunometric assay and the proportion hCG-H and the concentration of regular hCG were calculated. [Results] We confirmed the trend of the levels of hCG-H in early pregnancy. In 42 of 42 pregnancies proceeding to term, the proportion of hCG-H on the first day of hCG detection was >50%. Significantly lower proportions of hCG-H (<50%) were observed in 13 of 20 pregnancies that eventually failed (p<0.01). [Conclusion] It is deduced from the findings that effective proportions of hCG-H (>50%) seems to be required for growth and invasion by cytotrophoblasts around the time of implantation. Measurement of proportion of hCG-H is an absolute test for detecting in the early pregnant status.

P1-1S-62  Plasma α-defensins 1-3 level, an indicator of neutrophil activation during pregnancy and postpartum

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[Objective] Normal pregnancy was reported to be a mild systemic inflammatory state, in which some cytokines and phagocytes were activated. We aimed to evaluate whether α-defensins 1-3 provided a valuable indicator of neutrophil activation during normal pregnancy and postpartum. [Methods] The plasma α-defensins 1-3 concentration was measured by an enzyme-linked immunosorbent assay, from 21 nonpregnant donors (controls), 184 normal pregnant women (26 in term labor), and 55 postpartum women with informed consent. Expressions of the neutrophil surface markers CD11b and Toll-like receptor-4 (TLR-4) were analyzed in a flow cytometry. [Results] The α-defensins 1-3 concentration was significantly higher in labor than in the other groups. It decreased after delivery but remained significantly higher than the controls. CD11b and TLR-4 expressions were significantly higher in labor than the controls. CD11b expression continued to be high on the 3rd day postpartum when TLR-4 expression decreased to the nonpregnant level. [Conclusion] This is the first evidence of physiological changes in the α-defensins 1-3 plasma concentration during pregnancy and postpartum and of a positive correlation between that concentration and neutrophil activation. These findings may be of great help in the early detection of preeclampsia, one of the most serious states of systemic inflammatory response syndrome.

P1-1S-63  Randomized Clinical Trial: The Effectiveness Of Oral Misoprostol And Oxytocin Injection In The Prevention Of Postpartum Hemorrhage

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Objective: To compare the effectiveness of oral misoprostol and oxytocin injection, in the prevention of postpartum hemorrhage.

Design: A Randomised Clinical Trial (RCT) involving 196 parturients with fullterm pregnancies and undergoing vaginal delivery, randomly allocated to treatment with oral misoprostol (n = 98) or oxytocin (n = 98).

Subject: All the parturients in the study setting undergoing vaginal delivery and met the inclusion and the exclusion criteria.

Results: The third stage blood loss for the misoprostol and the oxytocin group was 144.286ml and 131.020ml respectively with means difference 13.266ml and p 0.186 and the fourth stage blood loss for the misoprostol and the oxytocin group was 94.439ml and 94.847ml respectively with means difference 0.408ml and p 0.966. Statistically there is no difference between means of the length of the third stage of labor and the third and fourth stage blood loss, and there were no confounding factors that significantly interfere in this study (anacova and logistic regression analysis).

Conclusion: The effectiveness of orally misoprostol in the prevention of postpartum hemorrhage is not significantly different with the use of oxytocin intramuscularly.