

# “SERUM PLACENTAL GROWTH FACTOR LEVELS AND UTERINE ARTERY DOPPLER PULSATILITY INDEX AT 11-13 WEEKS 6 DAYS GESTATION AS EARLY PREDICTIVE MARKERS OF PRE-ECLAMPSIA AT TERTIARY CARE HOSPITAL: A PROSPECTIVE OBSERVATIONAL STUDY”

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## Abstract

**ABSTRACT OBJECTIVE:** To detect serum placental growth factor levels and uterine artery doppler pulsatility index for predicting pre-eclampsia and assess their association with the severity of pre-eclampsia. **DESIGN:** Prospective observational study **SETTING:** Tertiary care centre **POPULATION:** All antenatal women from 11 to 13+6weeks gestation attending antenatal clinic during study period. **METHODS:** This involved 160 antenatal women, from 11-13+6 weeks gestation. Serum PIGF levels and UA doppler mean P.I measured and patients were followed up upto delivery and observed for the development of pre-eclampsia and its severity. **MAIN OUTCOME MEASURES:** PIGF Value cut-off was 40.33pg/ml with the sensitivity of 97.5 % and Specificity was 98.3%. For the PI Value of 1.85 the sensitivity was found to be 74.4% and Specificity was found to be 92.5%. **RESULTS:** Mean serum PIGF levels for pre-eclampsia patients was 25.09pg/ml and for normotensive patients mean PIGF level was 65.05pg/ml. Mean UA doppler P.I for pre-eclampsia patients was 2.02 and for normotensive patients was 1.39. Mean PI value increased with increasing severity of preeclampsia. **CONCLUSION:** Early recognition of women will help initiation of prophylactic measures and enhanced surveillance. First trimester UA Doppler with serum PIGF together with maternal characteristics can be used as a reliable screening test for preeclampsia prediction and to reduce fetomaternal morbidity **KEYWORDS:** uterine artery (UA) doppler pulsatility index (P.I), placental growth factor levels(PIGF), pre-eclampsia, eclampsia

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