

## **Placental Growth Factor (PLGF) and Pregnancy Associated Plasma Protein A (PAPP-A) in maternal serum as prediction of Preeclampsia.**

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Some angiogenic factor like PLGF, VEGF and other substance like PAPP-A are assumed to be low in maternal serum representing manifestations of impaired placentation and reduced placental perfusion and shown promising results in the early prediction of PE. This prospective observational cohort study was carried out by measuring maternal serum PLGF and PAPP-A among 135 pregnant women selected by non-purposive convenience sampling between 15-20 weeks in Bangabandhu Sheikh Mujib Medical University (BSMMU) hospital, Dhaka, Bangladesh from January 2015 to April 2015. Subjects were regularly followed up till delivery according to antenatal visit schedule for development of pre-eclampsia. The incidence of Preeclampsia was 3.9% among the sample. Mean value of PLGF among women who developed preeclampsia was  $0.65 \pm 0.30$  MOM compared to those who didn't which was  $1.17 \pm 0.67$  and the difference was not significant. The mean value of PAPP-A in non preeclamptic patients was  $1.01 \pm 0.184$  and in preeclamptic patients was  $0.92 \pm 0.16$  MoM which was also not significant. Correlation of PIGF with preeclampsia was  $-0.15$  which was significant and correlation of PAPP-A with preeclampsia was  $-0.095$  which was not significant. Relative risk for development of preeclampsia with low PIGF (0.6 MoM) was found 4.11 times than women with normal PIGF and Relative risk for development of preeclampsia with low PAPP-A (0.85 MoM) was found 7.7 times than women with normal PAPP-A. This study result suggests that reduced concentration of PLGF and PAPP-A in maternal serum are at increased risk of subsequent development of preeclampsia.