**ABSTRACT**

Hypertensive disorders of pregnancy form one among the deadly triad with haemorrhage & infection, contributing to maternal morbidity and mortality. Hyperhomocysteinemia is a predictor of more than 100 diseases. Homocysteine is a sensitive marker of vit B6, B12 and folate deficiency and hence measurement of serum homocysteine levels is useful in predicting preeclampsia, eclampsia, abruption and thereby reducing its complications.

**AIMS & OBJECTIVES**

To study the relationship between the levels of serum homocysteine in normal pregnancy and pregnancies complicated by preeclampsia, eclampsia and abruption and whether the levels are indicators of severity to reduce fetomaternal morbidity & mortality.

**MATERIALS AND METHODS**

This is a prospective study done in 160 antenatal patients with preeclampsia, eclampsia, abruption and normal pregnancies, attending the obstetrics and gynaecology department, at Coimbatore medical college hospital over a period of one year from October 2016 to September 2017. The cases were evaluated through proper history, clinical examination, blood investigations and ultrasound investigations.

**OBSERVATION:**

In our study, preeclampsia and eclampsia is common in primigravida with 62.5% of abruption occurring with advancing age and second gravida or
more. Mild preeclamptics did not develop any complications and CVT is commonly seen in severe preeclampsia (26.3%) and eclampsia (20%). Growth restricted fetuses is seen in severe preeclampsia (52.6%) and preterm babies is commonly seen with abruption (82.5%). Serum homocysteine levels are indicators of severity in preeclampsia and eclampsia with p values at 1% level of significance but there was no association between homocysteine levels and abruption and this might be due to small sample size. Hence estimation of serum homocysteine levels is a useful marker to predict the severity of preeclampsia and eclampsia.

**CONCLUSION:**

This study shows that hyperhomocysteinemia is a predictor of preeclampsia, eclampsia, abruption and its severity. Therefore serum homocysteine level estimation can be included as a routine in antenatal care management in all hospitals. Supplementation of B complex vitamins and folic acid lowers homocysteine levels and hence regular intake of folic acid and vitamin B tablets from 1st trimester of pregnancy can help to reduce homocysteine levels thereby decreasing high risk pregnancies like preeclampsia, eclampsia, abruption and its complications.

**KEYWORD:**

Serum homocysteine levels, preeclampsia, eclampsia, abruption placenta.