AIMS & OBJECTIVE:

To study the cardiac function in preeclamptic patients by transthoracic echocardiography and compare these features with normal pregnant patients, belonging to third trimester.

METHODOLOGY:

Study Centre : Institute of Obstetrics & Gynaecology, Madras Medical College, Chennai.

Study Design : Prospective Controlled Study

Period of Study : One Year (September 2016 to September 2017)

Sample Size : 80 patients

Group I

Normotensive pregnant patients - 40 cases, between age group of 18 to 32 years.

INCLUSION CRITERIA:

- Pregnant women with normal blood pressure.
- Pregnant women in gestational age 28 to 40 weeks as calculated by LMP and dating scan.
- No previous h/o preeclampsia or essential hypertension
- Not on treatment for any medical or surgical illness

EXCLUSION CRITERIA:

- Previous history of hypertension
- Recurrent gestational hypertension/PIH
- Patients with medical disorders of pregnancy
**Group 2**

Pregnant preeclamptic patients 40 cases, between age group of 18 to 32 years.

**INCLUSION CRITERIA:**

- Pregnant patients with systolic BP \( \geq 140 \text{mm Hg} \) and diastolic BP \( \geq 90 \text{mm Hg} \) that develops after 20 weeks of gestation confirmed by repeated examination of at least 6 hours apart with proteinuria of trace to 2+ or spot PCR \( >0.3 \)
- Pregnant women in gestational age 28 to 40 weeks as calculated by LMP and dating scan.
- No previous H/O essential hypertension
- No other medical disorders complicating this pregnancy

**EXCLUSION CRITERIA**

- Previous history of hypertension
- Recurrent gestational hypertension/PIH
- Patients with medical disorders of pregnancy

**STUDY DESIGN AND METHODS**

This is prospective controlled study consisting of two groups of patients ie., 40 normotensive pregnancy women and 40 preeclamptic patients. Both these groups of patients underwent echocardiography in third trimester to study the left ventricular function by using several parameters. This study also correlated mode of delivery and gestational age at the delivery and birth weight of fetus.
**RESULTS:**

In our study we compared left ventricular dysfunction among preeclamptic and normal pregnant patients. The study result shows that among the preeclamptic patient there is significant diastolic dysfunction indicated by E-wave velocity, A-wave velocity and E/A ratio reduction statistically significant (p value = <0.05). There is significant prolongation of Inter Ventricular Relaxation Time (IVRT). In systolic function there is only change in the Inter Ventricular Septal (IVSs & IVSd) motion changes.

**Keywords:**

Preeclampsia, Diastolic Dysfunction, Echo Cardiography, Left ventricular dysfunction.