

**PP 23**

**Exploring serum uric acid levels in pregnant women with pregnancy induced hypertension**

Balayasoithini V<sup>1</sup>, Madhurahini R<sup>2</sup>, Jeneni J<sup>1</sup>, Arasaratnam V<sup>2</sup>, Muhunthan K<sup>3</sup>, Thayaanathan K<sup>2</sup>

<sup>1</sup>Department of Medical Laboratory Sciences, Faculty of Allied Health Sciences, University of Jaffna, Sri Lanka,

<sup>2</sup>Department of Biochemistry, Faculty of Medicine, University of Jaffna, Sri Lanka, <sup>3</sup>Department of Obstetrics and Gynaecology, Faculty of Medicine, University of Jaffna, Sri Lanka.

**Background:** In Sri Lanka, approximately 10-15% of pregnancies encounter pregnancy related hypertensive disorders. These conditions embark unfavorable outcomes for both mothers and infants. Uric acid is primarily eliminated through the kidneys and serves as an element in understanding the intricacies of hypertensive disorders.

**Objective:** To investigate the serum uric acid level among pregnant women with normal blood pressure and pregnancy-induced hypertension.

**Methods:** This is a population based analytical cross sectional study conducted at the Antenatal clinic, Teaching Hospital Jaffna. In this study, 34 normal pregnant women and 34 pregnant women with pregnancy-induced hypertension (140/90 mmHg on two or more occasion and without proteinuria) were enlisted. Serum uric acid levels were measured by the uricase method. Ethical approval was obtained from Ethical Review Committee, Faculty of Medicine, University of Jaffna. Independent sample t-test was carried out to compare the mean values of serum uric acid between Group 1 and Group 2 pregnant women.

**Results:** Age of total participants ranged from 18-43 years. The serum uric acid level ranged from 1.73 -6.77 mg/dL among the total population. The selected pregnant women were categorized into 18-25, 26-34 and 35-43 years and the differences in mean serum uric acid levels within these age groups were did not differ significantly ( $p>0.05$ ). Group-1 and Group-2 pregnant women had the mean serum uric acid level of 3.04 ( $\pm 0.49$ ) and 4.66 ( $\pm 0.89$ ) mg/dL respectively. Mean serum uric acid level of pregnancy-induced hypertension women [4.66 ( $\pm 0.89$ ) mg/dL] was significantly ( $p<0.001$ ) elevated than that of normotensive pregnant women [3.04 ( $\pm 0.49$ ) mg/dL].

**Conclusions:** Our study highlights a significant elevation in serum uric acid level among individuals with pregnancy induced hypertension compared to the normotensive group. Suggesting its potential utility as a marker for early detection of pre-eclampsia-like pregnancy-induced hypertensive diseases.