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**Distribution of Serum Creatinine Levels in Pregnant Women with Pregnancy Induced Hypertension**

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**Background:** In Sri Lanka, pregnancy-related hypertension, notably preeclampsia, is a prominent health concern, posing substantial risks to maternal and fetal well-being.

**Objective:** To determine the distribution patterns of serum creatinine in normal pregnant women and women diagnosed with pregnancy-induced hypertension

**Methods:** This is a population based, analytical, cross-sectional study. In this study, 34 normal pregnant women (group 1) and 34 pregnant women with pregnancy-induced hypertension (group-2; 140/90 mmHg on two or more occasion and without proteinuria) were enlisted. Serum creatinine levels were estimated using colorimetric Jaffe alkaline picric acid kinetic method. Pre-pregnancy weight and height measurements were taken from the clinical records and the pre-pregnancy BMI values of the women were calculated. Mean serum creatinine levels were compared between group 1 and group 2 by independent sample *t*-test.

**Results:** The serum creatinine level ranged from 0.38-1.14 mg/dL among the total of 68 women. Mean serum creatinine levels of group 1 and group 2 women were 0.53±0.06 and 0.76±0.17 mg/dL, respectively. A statistically significant difference ( $p<0.001$ ) in the mean serum creatinine levels was observed between the two groups of the pregnant women. The selected women were classified into underweight (<18.5 kg/m<sup>2</sup>), normal (18.5-24.9 kg/m<sup>2</sup>), overweight (25.0-29.9 kg/m<sup>2</sup>), obese (30.0-39.9 kg/m<sup>2</sup>) and extremely obese (>40.0 kg/m<sup>2</sup>). Majority of the women in group 1, exhibited normal BMI mean±SD (21.95±2.10 kg/m<sup>2</sup>) while those in group 2 were overweight (26.88±1.05 kg/m<sup>2</sup>) and the differences in mean serum creatinine levels within these BMI groups were not differ significantly ( $p>0.05$ ).

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

**Keywords:** *Body mass index, Pre-eclampsia, Pregnancy induced hypertension, Pregnant women, Serum creatinine*