

Estimation of Serum Uric Acid Levels in First Trimester as a Predictor of Pre-Eclampsia

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Abstract

Background: Pre-eclampsia is a life-threatening multisystem disorder, unique to pregnancy, complicating approximately 5-8% in developing countries. It is the 2nd most important cause of maternal mortality in the world. The search for an ideal predictive test for pre-eclampsia remains a major challenge for obstetricians. We in the current study tried to evaluate the serum uric acid levels with maternal and fetal outcomes. **Methods:** N=100 cases attending ANC at Prathima Institute of Medical Sciences, Naganoor, Karimnagar were included in the study. selected patients are subjected to detailed history comprising of age, parity, body weight and height, LMP, medical history, drug history, previous obstetric history, previous history of preeclampsia. They were subjected to clinical examination and BP will be recorded. Routine laboratory investigations are done, along with the serum uric acid (1st trimester) serum uric acid level was measured by the autoanalyzer. **Results:** The normal maximum serum uric acid concentration in the first trimester is 4.2 mg/dl the values below this were taken as negative for high serum uric acid levels. Those above the value of 4.2 mg/dl were taken as positive for a high level of serum uric acid levels. Pre-eclampsia was absent at the mean serum uric acid levels of less than 3.60 mg/dl and mild pre-eclampsia was noted in cases with serum uric acid range of 4.3 to 4.5 mg/dl and server eclampsia was noted with serum uric acid levels > 4.6 mg/dl the correlation value 'r' was +0.57 and the p-value was <0.001 was significant. **Conclusion:** positive correlation between serum uric acid levels and development of pre-eclampsia in later weeks of pregnancy. There is a study on was a positive correlation between serum uric acid levels and SBP and DBP and gestational hypertension. Increased serum uric acid levels in the first-trimester help to determine fetal and maternal outcomes. Increased levels are associated with a high risk of HELLP syndrome, Low APGAR scores, and increased NICU Admissions.