

Joint Webinar on Gynecology-Obstetrics & Pediatrics

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Maternal serum uric acid and calcium as predictors of hypertensive disorder of pregnancy: A case control study

Objectives: Compare serum uric acid and calcium levels among normotensive and hypertensive pregnant women, to compare maternal and perinatal outcomes in two groups.

Materials and methods: Prospective case control study was conducted after ethical approval in Obstetrics and Gynecology department of rural tertiary care center of Northern India, over seven months. Total 220 antenatal women ≥ 34 weeks of gestation with 110 cases having hypertensive disorder of pregnancy and 110 controls with normal blood pressure were compared for maternal uric acid and calcium levels and maternal, perinatal outcomes.

Results: Mean \pm SD values of uric acid and calcium in control group was 4.42 ± 1.42 mg/dl and 8.94 ± 0.6 mg/dl, whereas in cases they were 6.8 ± 2.72 mg/dl and 8.61 ± 0.78 mg/dl ($p < 0.05$). Induced labor followed by lower segment caesarean section was the most common mode of delivery in hypertensive cases, whereas, in controls, the majority had spontaneous onset of labor and delivered vaginally ($p < 0.05$). Hypertensive women with higher uric acid and lower calcium had adverse perinatal outcome as compared to controls ($p < 0.05$). Mean \pm SD of neonatal birth weight in controls was 2.81 ± 0.295 Kg and in cases 2.56 ± 0.421 Kg. Neonatal birth weight was significantly associated with maternal uric acid than calcium in hypertensive women. Cases with hyperuricemia and low calcium levels had adverse overall outcome as compared to controls.

Conclusion: Maternal hyperuricemia and hypocalcemia was associated with adverse maternal, perinatal outcomes in women with hypertensive disorder of pregnancy as compared to healthy normotensive women.



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