A STUDY ON THE RISK FACTORS OF IUGR

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ABSTRACT

Statement of problem : To identify the significance of certain risk factors for intra uterine growth retardation in a population of pregnancy ladies admitted in SAT hospital, Thiruvananthapuram,Kerala.

Research design and methods : We designed a case control study for patients admitted in SAT hospital, Thiruvananthapuram during a 2- month period. Controls were matched for age and parity and admitted on the same day. Data about the investigated risk factors were obtained by interview method using structured questionnaire. Maternal stress was assessed using perceived stress scale 10 (PSS 10). Data was analysed statistically using Odds ratio and Chi square test for significance.

Results : The total number of participants was 50 cases and controls each. In univariate analysis risk factors such as poor socio economic status (OR 4.53, p value 0.00031), Inadequate spacing between birth (OR 4.0, p value 0.045) low prepregnancy BMI (OR 3.43, p value 0.004) Inadequate gestational weight gain (OR 8.07, p value 0.00047) passive smoking (OR 4.42 p value o.02) Chikungunya /Dengue fever (OR 9.33, p value 0.014) Hypertension (OR 6 p value 0.014) Anemia (OR 5.27 p value 0.025) Placental abnormalities (OR 9.33, p value 0.014) and Maternal stress (OR 7.33 p value 0.00004) were found to have significant association with IUGR. Multivariate analysis established the association of certain factors such as socioeconomic status (OR 6.531, p value 0.001), pre pregnancy BMI (OR 6.413, p value 0.002) hypertensive

disorders (OR 15.387, p value 0.004) and Maternal stress (OR 5.185,p value 0.006) Factors such as multiple pregnancy, congenital anomalies ,TORCH infections, maternal habits like smoking, illicit drug use, caffeine consumption some maternal disease like heart disease did not add to the risk of developing IUGR.

Conclusion: Known risk factors like poor socio economic status, inadequate spacing of births, low prepregnancy BMI, inadequate gestational weight gain, hypertension,anemia, placental abnormalities were confirmed and certain novel factors such as passive smoking chikungunya/dengue infection and maternal stress were suggested. Caffeine consumption was not found to have a statistically significant association with IUGR. Greater statistical power is needed to study weaker associations and interacting effects.