

---

# EVALUATION OF INTRAVENOUS GLUCOSE TOLERANCE TEST AS A METHOD OF PREDICATION OF INTRAUTERINE GROWTH RETARDATION

**ROKIA AHMED AHMED ABOU STATE**

The aim of this work is to evaluate maternal hypoglycaemia as a causative factor of IUGR and the value of intravenous glucose tolerance test as a method of prediction of IUGR. One hundred two cases in the third trimester of pregnancy attending Kafr El Shikh general hospital antenatal clinic were studied. Patients chosen for the study had a high risk of developing IUGR. Cases included in the study: 71 patients had a single risk factor for IUGR including: Preeclampsia (50 cases), Eclampsia (6), anaemia (9) and Cardiac disease (6). 2) 31 patients had multiple risk factor for IUGR including: Preeclampsia + anaemia (17), preeclampsia + cardiac d. (5). Preeclampsia + anaemia + cardiac disease (one case), Eclampsia + anaemia (5) and cardiac disease + anaemia (3 cases). IV.GTT was performed. Fasting blood sugar and 10 minutes and 60 minutes blood glucose after IV. glucose injection was analyzed by using glucometer apparatus. Newly born infants' weight was recorded and IUGR could be diagnosed (birth weight below the 10 percentile according to gestational age). Assessment of anatomical features that indicates maturity in the newly born was also performed. IUGR babies were compared to hypoglycaemia and statistical evaluation of the significance of hypoglycaemia as a cause of IUGR was studied in all cases. - 81 -- 82 - There was a significant correlation between maternal hypoglycaemia and IUGR in the studied group. Also there was a tendency towards lowering blood sugar level in growth retarded newly born infants. Fasting blood sugar level and at 10 minutes and 60 minutes after IV. glucose load were significantly lower in cases with IUGR than in cases with no IUGR. In patients with a single risk factor for IUGR there was no statistically significant difference between the number of IUGR in those with hypoglycaemic compared to those with normoglycaemic mothers ( $P > 0.05$ ). In patients with multiple risk factors for IUGR, the number of IUGR infants was statistically higher in hypoglycaemic patients. ( $P < 0.0001$ ) In patients with pregnancy toxemia only; there was no statistical difference between the number of IUGR infants in hypoglycaemic and normoglycaemic groups  $P$