

Insulin resistance is well established to be related with preeclampsia. The action of insulin in human appears to be potentiated by chromium. The aim of present study was assessment of chromium level in the development of insulin resistance in preeclampsia and hence its pathogenesis.

This case control study was achieved on subjects recruited from Babylon Teaching Hospital for Obstetric & Gynecology during the period between September 2013 till October 2015, included 90 pregnant women, 45 of them identified with preeclampsia in the third trimester and other 45 were apparently healthy pregnant women taken as a controls.

Chromium concentrations was measured by Atomic Absorption Spectrophotometry. Fasting insulin was estimated by Enzyme Linked Fluorescent Immune-Assay (ELFA) technique and fasting plasma glucose concentration by glucose oxidase method. Insulin resistance was calculated by homeostatic model assessment(HOMA)using mathematical equation.

The results of present study showed no significant difference in fasting plasma glucose concentrations between patients and controls (P value >0.05),while there were a significant differences in chromium concentration level and insulin resistance between two groups (P value <0.05).However, there was no correlation between insulin resistance in patients with preeclampsia and low chromium level ($r= 0.101$, $p=0.508$).

The present study concluded that low chromium level has no impact on the development of insulin resistance in preeclampsia.