

## Correlation between insulin resistance and hypertensive disorders in pregnant women: a focus on preeclampsia in Italian population

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**Objective.** Aim of our study was to define the role of maternal insulin abnormal metabolism in the pathogenesis of hypertensive disorders of pregnancy (HDP) following our previous observation of a lack of insulin-resistance in preeclampsia (PE) of Italian patients.

**Materials and Methods.** An observational study was conducted on 74 pregnant women affected by HDP. Control group was constituted by 20 healthy women with uncomplicated pregnancy. Fasting insulin, HOMA-IR and QUICKI index score were adopted to measure insulin resistance in both groups.

**Results.** Before 34 weeks, no significant differences were observed in fasting insulin, HOMA-IR, and QUICKI index either

among different types of HDP or between women affected by HDP and controls. After 34 weeks, women with chronic hypertension compared to controls showed significantly higher levels of fasting insulin, HOMA-IR and QUICKI index (15.47  $\mu$ UI/ml *vs* 7.97  $\mu$ UI/ml,  $p = 0.02$ ; 2.24 *vs* 1.39,  $p = 0.012$ ; 0.34 *vs* 0.38,  $p = 0.04$ ). No other differences were found. No differences in insulin-resistance were detected between women with PE and controls and between women with early and late-onset PE.

**Conclusions.** Hyperinsulinemia and insulin resistance are not features of late-onset preeclampsia in our patients suggesting a different pathogenetic pathways. These findings support the idea of a particular pattern of PE in our country, suggesting a pathogenetic complexity of PE in the various countries.