

INSULIN RESISTANCE SYNDROM IN PREECLAMPSIA – THE INFLUENCE ON THE OFFSPRING

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Preeclampsia is a multisystem disorder of unknown cause that is unique to human pregnancy. It is a major cause of perinatal and maternal morbidity and mortality, affecting 5% to 8% of all pregnancies. The clinical findings can manifest as either a maternal syndrome or fetal syndrome. There is increasing data supporting the role of the insulin resistance in preeclampsia, although this evidence has not been seen in all studies.

The aim of this research was to determine the influence of the insulin resistance on the offspring in preeclampsia. Sixty preeclamptic pregnancies underwent the research taking the serum insulin of 20uU/ml as the state of insulin resistance's cut off. Insulin sensitivity was examined by using HOMA and QUICKY indexes. Thirty preeclamptic pregnancies had the insulin resistance syndrome and thirty were the control group. Linear regression analysis and logistic linear analysis were used to examine the influence of the insulin resistance.

In the insulin resistance preeclamptic pregnancies, the duration of pregnancy was shorter (2.59; $p < 0.01$) and the placental weight was lower (2.72; $p < 0.01$). This group also had a statistically lower percentage of vaginal birth (9.64; $p < 0.01$) and higher of caesarian sections (4.44; $p < 0.05$). Newborns in the insulin resistance group were shorter (0.108; $p < 0.001$) weighed less (2.81; $p < 0.01$), had a lower Apgar score (3.11; $p < 0.01$) and stayed in the hospital for a longer time (2.48; $p < 0.05$).

The insulin resistance syndrome is not present in every preeclamptic pregnancy, but if it is present it affects the offspring in a negative way. *Acta Medica Medianae* 2016;55(2):19-24.

Key words: preeclampsia, insulin resistance, newborn