

LIPID PROFILE IN PREGNANCY COMPLICATED BY CHRONIC HYPERTENSION

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Background: Chronic hypertension adversely affects the functioning of various systems and organs. The aim of the study was to examine the serum lipid changes in pregnancy complicated by chronic hypertension.

Methods: The study covered 20 hypertensive pregnancies (the study group) and 105 normal pregnancies (the control group). Both groups did not differ in terms of maternal and gestational age. Hypertension was diagnosed 4.1 ± 3.1 years before pregnancy and the mean arterial pressure was $160 \pm 18/98.5 \pm 10$ mmHg in the study group. The hypertensive group was characterized by higher values of both prepregnancy and predelivery body mass index (BMI) compared with healthy controls (28.6 ± 6.5 vs. 22.5 ± 2.6 , $P < 0.001$ and 33.1 ± 7.0 vs. 26.5 ± 3.4 , $P < 0.001$, respectively) but the BMI increase during pregnancy did not differ in both groups (16.0 ± 5.6 vs. $17.8 \pm 6.3\%$, NS). Total cholesterol, HDL-cholesterol, LDL-cholesterol and triglyceride concentration was assessed in the serum. Moreover, LDL-cholesterol/HDL-cholesterol and triglyceride/HDL-cholesterol ratios were calculated.

Results: The increase in HDL-cholesterol concentration (2.03 ± 0.48 vs. 1.75 ± 0.53 mmol/L, $P < 0.03$) and the decrease in triglyceride/HDL-cholesterol ratio (0.49 ± 0.1 vs. 1.4 ± 0.2 , $P < 0.001$) were observed in pregnancy complicated by chronic hypertension. No difference in total cholesterol, LDL-cholesterol and triglyceride concentration and LDL-cholesterol/HDL-cholesterol ratio was noted between the groups.

Conclusion: Pregnancy complicated by chronic hypertension is accompanied by selective increase in HDL-cholesterol concentration. The serum concentrations of other lipids remain unchanged compared with normal pregnancy.

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