



BLOOD LIPID CONCENTRATIONS OF NEWBORNS AND THEIR MOTHERS WITH GESTATIONAL DIABETES



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INTRODUCTION

It is noted that with gestational diabetes mellitus, lipids cross the placenta in a limited amount. It is assumed that their concentration in maternal blood correlates with the concentration of lipids in the fetus

AIM

to compare the levels of the main indicators of the lipid profile, such as cholesterol, triglycerides and high and low density lipoproteins, in newborns and similar indicators in their mothers with gestational diabetes

METHOD

- 127 mother-child pairs
- All infants were born with gestational age less than 37 full weeks
- Birth weight ranged from 2800 to 3600 grams
- Levels of cholesterol, triglycerides, high and low density lipoproteins were studied during the neonatal period
- LiquickCor-CHOL test systems were used to quantify cholesterol
- triglycerides were measured using LiquickCor-TG test systems
- high and low density lipoproteins were determined using CORMAYHDLDIRECT test systems

RESULTS

The relationship of maternal and neonatal indicators of the lipid spectrum in the neonatal period **has not been identified**

The only exception was the concentration of triglycerides, which showed a statistically significant **negative relationship between the content of triglycerides in the blood of mothers (Me - 0.005mmol/l) and their babies (ME - 0.001mmol/l)**

CONCLUSIONS

1. The results of this study do not strongly confirm the relationship between the lipid content in the blood plasma of mother with gestational diabetes and her newborn
2. However, in order to draw final conclusions regarding the correction of lipid metabolism in newborns, longitudinal studies with sufficient power are necessary

REFERENCES

Papysheva O.V. et al. Lipid and carbohydrate exchanges in children born to mothers with gestational diabetes mellitus. *Experimental and Clinical Gastroenterology*. 2019;(1):137-144.

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