

### Lipod profile and body weight in relation to infant feeding

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Introduction: The process of atherosclerosis (according to the latest research of inflammation), begins to develop in the first years of life. High levels of cholesterol in breast milk could lead to reprogramming of its metabolism and prevent the development of hypercholesterolemia in the adult age. Long-term duration of breastfeeding can protect the child from infection, adequate advance on weight, prevention of obesity.

Aim: examination of the serum lipids profiles and C reactive protein in infants fed breast milk and formula milk, duration of breastfeeding in relation to lipoproteins and body mass index.

Methods: prospective clinical study was performed from 06. 2011. till 10. 2013., in Pediatric Clinic, Clinical Center of Sarajevo. Study included 100 patients, and formed two groups according to age: 6 months and 12 months, and analysis lipids, CRP, anthropometric parameters in relation to diet. Its realized the detailed information about the period of pregnancy, birth weight, duration of breastfeeding, and the beginning of complementary food. Mothers were evaluated: diet during breastfeeding, maternal body weight before and after pregnancy.

Results: High-density lipoprotein (HDL) were higher in breastfeed infant. ( $p=0.024$ ) Total cholesterol and other lipoproteins are not significantly changed, compared to the infant nutrition. Longer duration of breastfeeding leads to an increase in total cholesterol ( $p=0.001$ ), low density lipoproteins ( $p=0.003$ ) and C/HDL  $p=0.015$ ; resulting in a positive effect on reprogramming of cholesterol metabolism.

Different diet did not influence the development of overweight or obesity. Longer duration of breastfeeding affects the reduction of the control in CRP. ( $p=0.045$ ). Breastfeeding significantly reduce maternal body weight after 3 months of breastfeeding ( $p=0.0037$ )

Conclusion: breastfeeding have, proven, short and long-term benefits. The results of our study showed insignificance in the lipids profile, body weight compared to the deferent infant diet.

Key Words: breastfeeding, lipids, CRP, body weight.