# LIPID PROFILE AND BODY WEIGHT IN RELATION TO INFANT FEEDING


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## INTRODUCTION

*The process of atherosclerosis begins to develop in the first years of life. High levels of cholesterol in breast milk could lead to reprogramming of its metabolism and prevention of development of hypercholesterolemia in the adult age. Long-term duration of breastfeeding can protect the child from infection, as well as to contribute to adequate advance of weight and prevent obesity.*

## AIM

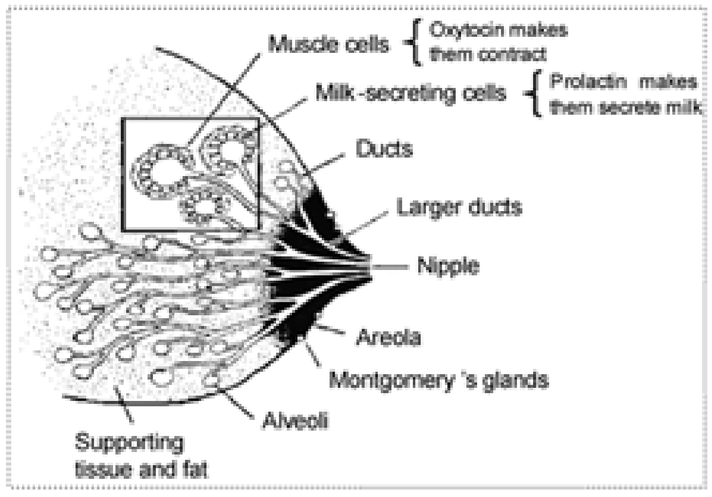
*To evaluate: serum lipids profiles,C reactive protein in infants fed breast milk and formula milk, duration of breastfeeding in relation to lipoproteins and body mass index.*

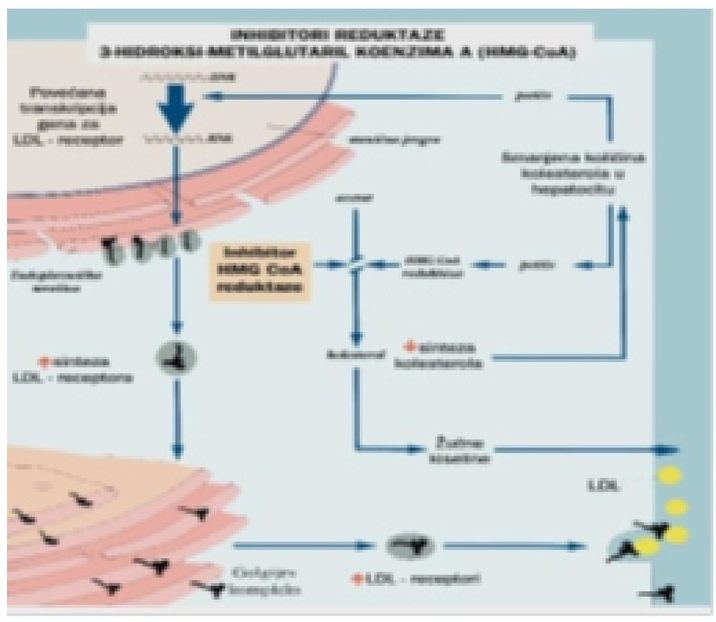
## METHODS

*prospective clinical study was performed from 06. 2011. till 10. 2013., at Paediatric Clinic, Clinical Center University of Sarajevo. Study included 100 patients, two groups were formed according to age: I group 6 months and II group 12 months of age. Detailed information was obtained from questionary about: pregnancy, birth weight, start of complementary food intake, mother's diet during breastfeeding, maternal body weight before and after pregnancy, duration of breastfeeding. Detailed laboratory analysis of lipid profile and CRP was conducted. Anthropometric parameters of pts were evaluated in relation to pts diet.*

## RESULTS

*High-density lipoprotein (HDL) were higher in breastfeed infant. (p-0.024) Total cholesterol and other lipoproteins were not significantly changed compared to the infant's 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 cholesterol metabolism reprogramming. Different diet did not influence the development of overweight or obesity. Longer duration of breastfeeding affects reduction of control CRP. (p=0.045). Breastfeeding significantly decreased maternal body weight after 3 months of breastfeeding (p-0037).*




| cholesterol | | | | | Percentiles | | | test | |
|---|---|---|---|---|---|---|---|---|---|
| age | feeding | N | Min. | Max. | 25th | 50th (Median) | 75th | Mann-Whitney U | p |
| 6 months | MF* | 25 | 2,40 | 5,30 | 3,1500 | 3,7000 | 4,3000 | 177,5 | 0,009 |
| | MM* | 25 | 1,20 | 4,30 | 2,6500 | 3,2000 | 3,7000 | | |
| 12 months | MF | 25 | 1,70 | 6,90 | 2,5500 | 3,5000 | 4,0500 | 296,5 | 0,756 |
| | MM | 25 | 1,40 | 5,00 | 2,9500 | 3,5000 | 4,0500 | | |

*MM- breast milk; *MF- infant formula

## CONCLUSIONS

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

### References:

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