

The Impact of Nutritional Status of Lactating Mothers on Cholesterol Concentration in Human Milk

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The metabolic events at a critical pre- and postnatal time largely affect health in adult life [1,2]. Nutritional status of lactating mother has great importance for child proper development, because it influences quality of human milk.

Recent studies [3] suggest that high levels of cholesterol that appear in the human milk have a protective role at a later age according to the incidence of cardio-vascular diseases. An infant diet rich in cholesterol would stimulate the catabolism of cholesterol process, leading to its decrease in later life [4]. Exclusive breastfeeding may be associated with lower blood cholesterol levels. However, there is lack of information about the impact of diet on cholesterol concentration in human milk.

The aim of this study was to evaluate the relationship between nutritional status of lactating women and cholesterol concentration in breast milk.

Methods used in the study was: gas chromatography (cholesterol concentration) and 24-hour dietary recall interview (nutritional status).

25 samples of milk from the first four months postpartum, and 25 corresponding 24-hour dietary recall interviews were assessed. The correlation between nutritional status in the first day and cholesterol concentration in breast milk the next day was assessed.

Proven high impact of the supply of saturated ($r=-0,7411$) and monounsaturated fatty acids ($r=-0,6308$) on the cholesterol concentration in human milk is very important in case of infant's health. It is therefore starting point for mothers how to form proper eating habits. It will also start a new trend in lactating mothers nutrition so as to meet the needs of their infant's and protect them against the occurrence of cardiovascular disease in their later life.

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