

Hyperlipidaemia during Normal Pregnancy, Parturition and Lactation

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Abstract

Excessive accumulation of one or more of the major lipids in plasma can produce a marked increase in the risk of coronary heart diseases and other vascular complications. During and after pregnancy, changes in the levels of total cholesterol, triglyceride, low density lipoprotein-cholesterol, and high density lipoprotein-cholesterol have been described, but the amount of change varies from study to study. Therefore, the present study investigated changes in lipids and lipoproteins throughout the pregnancy and puerperium. We also investigated for the factors which may affect the plasma lipids during pregnancy. Concentrations of cholesterol and triglyceride of total plasma and lipoproteins were determined in 42 pregnant women throughout their pregnancy and puerperium together with a control group of 42 non-pregnant women. Compared to the control group, concentrations of cholesterol and triglyceride of total plasma and lipoproteins increased significantly during the second trimester and reached maximum in the third trimester. Concentrations of both, cholesterol and triglyceride, decreased significantly during post-partum. There was, however, a strikingly more rapid fall of plasma triglyceride and cholesterol in those mothers who breast-fed their infants compared with that in those in whom lactation was never established. In the majority of subjects, cholesterol and triglycerides remained significantly high until the fourth week of post-partum. The magnitude of the plasma cholesterol increment appeared in part to be related to that of plasma triglycerides, but these increments appeared to be independent of age, weight gain, numbers of previous pregnancies and sex of the foetus. This study concludes that hyperlipidaemia is a common finding during pregnancy and during post-partum. The concentrations of both cholesterol and triglycerides remain significantly higher in bottle-feeding than in breast-feeding mothers.

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