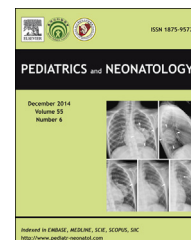


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LETTER TO THE EDITOR

Comment on Prediction of Neonates' Macrosomia with Maternal Lipid Profile of Healthy Mothers by Mossayebi et al[†]



To the Editor,

We read with interest the article by Mossayebi et al¹ in which they analyzed the association between fasting lipid profile of healthy pregnant women in the third trimester of pregnancy and neonatal birth weight. The authors concluded that mothers' triglyceride (TG) level was one of the independent predictors for both birth weight of newborns and presence of macrosomia/large for gestational age (LGA) babies.

The participants included in this study were healthy pregnant women without illnesses such as, diabetes mellitus, prepregnancy obesity (body mass index ≥ 30 kg/m²), hypertension/preeclampsia, thyroid disorders, and collagen vascular diseases. However, the authors have not mentioned whether mothers with pregnancy induced cholestasis (PIC) were included in their study. This is very much relevant to this paper as PIC is associated with dyslipidemia.² PIC affects up to 2% of pregnant women and occurs usually in the third trimester of pregnancy.³ Mossayebi et al¹ included participants in the first weeks of the third trimester of pregnancy in their study. Therefore, there is a possibility that some pregnant women, who were healthy at the time of recruitment into the study, might have developed PIC towards the latter part of pregnancy. These facts should be taken into account before interpretation of study results.

Low-density lipoprotein (LDL) cholesterol, apolipoprotein B-100, and total cholesterol concentrations were significantly raised with low high-density lipoprotein (HDL) cholesterol during pregnancy in women with PIC compared with healthy controls in a study by Dann et al.² However, serum TG was not measured in that study as participants were not in fasting states while giving blood samples for

lipid profiling. It is unclear whether dyslipidemia is a primary causative process in PIC or secondary to hepatocellular dysfunction *per se*. Appearance of dyslipidemia prior to hepatic dysfunction and persistence of lipid disorders, even after normalization of liver function tests postpartum, support the former theory from the study by Dann et al.² However, the findings from another study support the latter theory as lipid abnormality was preceded by increased serum bile acids and liver enzymes in participants with PIC. Additionally, maternal PIC is associated with increased cholesterol concentrations in the umbilical cord, fetus, and placenta, leading to offspring susceptibility to an obese, diabetic phenotype later in life.³

The inclusion of a few PIC participants cannot be ruled out, which might have affected the results of this study. Therefore, the conclusions drawn from the association between the lipid profile of healthy pregnant women and neonatal birth weight should be taken with caution.

Conflicts of interest

There are no potential conflicts of interest relevant to this article.

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