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Letters

Caffeine in pregnancy

Cut caffeine in pregnancy?

From their prospective study of maternal caffeine intake and fetal growth restriction the CARE Study Group concluded that caffeine intake before conception and during pregnancy should be reduced.¹ The UK Food Standards Agency immediately advised pregnant women to drink no more than two cups of coffee or four cups of tea a day.

When studying nutrient intakes in relation to pregnancy outcomes, many factors should be considered in the design and statistical analysis of the study, including maternal health consciousness, changes in body weight, smoking during pregnancy, and pregnancy related health complaints such as hypertension, diabetes, and nausea. It is not clear, for example, how nausea was measured and adjusted for in the multivariable model.

Nausea is hypothesised to stimulate early placental growth, and morning sickness has been associated with positive pregnancy outcome and a decreased risk of low birth weight.² Stein and Susser postulated that nausea in pregnancy may create an erroneous association between caffeine consumption and miscarriage,³ which may also hold for fetal growth restriction. Nausea is associated with increasing hormone levels during a normal pregnancy and is less common in pregnancies with a poor outcome.³ It is not merely a confounder that can be put in the model as a dummy variable but a major determinant (antecedent) of nutrient intakes during pregnancy, including caffeine.

It would have been more appropriate to perform a stratified analysis and examine the relation of caffeine with fetal growth restriction separately for women with and without nausea. In women who experience nausea a low intake (indeed a lower intake) of caffeine is much more common and likely to be related to the severity of nausea in a dose-response manner. Finding associations for caffeine in women without nausea would have strengthened the conclusions.

The authors adjusted only for baseline smoking status and not for changes in status and the number of cigarettes smoked during pregnancy. Smoking is associated with the intake of caffeinated beverages and also with birth weight.

Furthermore, the role of health consciousness of the mother was not addressed. The authors conducted sensitivity analyses to test the robustness of the results, but the paper provides no insight into the impact of confounders or effect modifiers on the data.

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