**Reviewer's report**

**Title:** Association of maternal omega-6 fatty acid intake with infant birth outcomes: Korean Mothers and Children's Environmental Health (MOCEH) study

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**Reviewer:** Undurti Das

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The study looks apparently interesting but is an impractical one.

1. Human diet is never devoid of n-3 fatty acids nor it is never rich only in n-6 fatty acids.

It is also important to make a distinction between EFAs namely LA and ALA and their long-chain metabolites such as AA of n-6 family and EPA and DHA of n-3 family. Thus, what is true of LA may not be true of AA and similarly what is true of ALA may not be true of EPA and DHA. It may be true that human diet may vary in its ratio between n-3 and n-6 but is never contains only one type of fatty acds (n-3 or n-6).

It is generally believed that Western diet is rich in n-6 compared to n-3 (almost 10:1) yet Western babies are normal and compared to Asian countries where the ratio between n-6 and n-3 (less than 5:1) are smaller in size and weight. How dos the authors explain this discrepancy from their study.

There could be factors other than fatty acids that may explain their findings that need to be investigated by the authors. What about minerals, vitamins, calorie intake, etc., of the diet of the study population. The weight and size of the babies in the study needs to be adjusted to the BMI of the corresponding mothers.
In addition to dietary recall method, authors need to measure plasma LA and ALA and other fatty acids and substantiate the dietary method followed in the study to be certain that there is indeed a relationship between maternal n-6 intake and their children.

The study is incomplete.

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