Reviewer's report

Title: Polyunsaturated fatty acids and child neurodevelopment among a population exposed to DDT: a cohort study

Version: 1 Date: 26 Nov 2018

Reviewer: Sylvaine Cordier

Reviewer's report:

1- I asked for the distribution of serum DDE levels and their correlation with estimated PUFAs intake and this was not provided (a same request was made by reviewer 2). Only mean and range of DDE levels are proposed.

I suggested to look at associations between PUFAs intake and child neurodevelopment scores (association that is the focus of the manuscript) according to levels of DDE: they propose a table presenting the association between DDE and child neurodevelopment scores, stratified for PUFAs levels; this is not the right one.

2- I asked for more details on the validity of the food frequency questionnaire to estimate PUFAs intake. As an answer they propose the following statement (page 12, lines 251/254): «...it is important to mention that the intake validity of PUFAs intake was 0.21 » referring to a publication of 1998 (ref16).

Ref 16 is not easily accessible, but in the abstract I read: « Correlation coefficients between energy-adjusted nutrient intakes, measured by diet recalls, and the first FFQ ranged from 0.12 for polyunsaturated fatty acids to 0.67 for saturated fatty acids » and further « Regression coefficients between 24-hr recall and FFQs, were significant for all nutrients, except for polyunsaturated fat, folic acid…. ».

Therefore, if we refer to correlation coefficients mentionned in the abstract, « intake validity » would be closer to 0.12 than to 0.21, and this is not reassuring, unless the authors argue differently. And as it stands, their arguments in favor of the quality of their instrument (which is the whole support of the paper) are not convincing.
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