Reviewer's report

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

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Reviewer: Marie-Aline Charles

Reviewer's report:

Comments on the introduction

The interest of examining the association between PUFA intake and child neurodevelopment in a population with high exposure to DDT could be better argued.

Comments on the statistical model:

I do not understand the parametrisation of the parameter « Bayley Scalesi » in the regression model. It is categorized as 1 for MDI and 2 for PDI and is an interaction term with PUFA intake: it indicates that the PUFA value is multiplied by 2 when the scale is PDI? If this is the case, it deserves more explanation.

Could you explain how the MDI and PDI scales contribute to the total Bayley score?
Were both scales evaluated for each child at each age?

Why is age at the first Bayley evaluation entered as a fixed effect in addition to age at evaluation j?

Comments on the results and discussion:
Is the PUFA effect consistent across ages? (test for an interaction PUFA*age?)

Previous studies have suggested competitive effect between n3 and n6 fatty acids. This population seems to have high LA intake. It would be interesting to explore the association with the n3 fatty acids according to low and high level of LA intake.

What nutritional advise is given to this population for fish intake during pregnancy?
It would be interesting to also show associations between the main contributing food groups to fatty acid intake and neurodevelopment in this population. It would also make the results more easily transferrable.
Level of interest
Please indicate how interesting you found the manuscript:

An article of importance in its field

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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