Reviewer’s report

Title: Vitamin-D status and neurodevelopment and growth in young North Indian children: a secondary data analysis

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Reviewer: Annemieke Boot

Reviewer’s report:

This manuscript evaluates the vitamin D status in North Indian children in relation to the neurodevelopment and growth. The paper is well written. The statistical analysis seems adequate.

The study is performed in 960 children for growth and 401 for neurodevelopment. A substantial portion of the children is underweight, at baseline about 31% and after 6 months the prevalence has increased to about 34%. What was the cause of the increase of the percentage of children who are underweight? The vitamin D level has been assessed at baseline and 34.5% of the children had a vitamin D level below < 10 ng.ml. During the 6 months of the study more children got underweight so the percentage of vitamin D deficient children may also have increased. The vitamin D level should also be assessed after 6 month. Only on a baseline assessment of vitamin D the authors cannot conclude that vitamin D deficiency is not associated with poor growth and neurodevelopment.

At baseline, about 70% of the children were anemic. For growth both calcium and vitamin D are needed. Do the authors have data of the calcium intake of the children? This should be discussed.

In the discussion it should be added that the study was performed in a population with a poor feeding status. The majority of the children is anemic which may negatively influence the development. Other deficiencies also negatively influence growth and development.

Growth and neurodevelopment are assessed 6 month after the assessment of vitamin D status which is rather short.

Table 1: change rupees in American Dollars.

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