Reviewer’s report

Title: Protective and restorative potency of Vitamin D on persistent biochemical autistic features induced in propionic acid -intoxicated rat pups

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Reviewer: Undurti Das

Reviewer’s report:

Interesting study. It would have been more interesting had the authors measured plasma and still and if possible urinary levels of propionic acid in patients with autism in support of their animal model of autism.

If vitamin D has a role in autism, then why that the incidence of autism seems to be increasing in USA and other countries even though vitamin D is supplemented in milk and other foods and given even to pregnant women?

Vitamin D could be just a bystander in autism!

The authors could have measured plasma, stool and urinary levels of propionic acid in their animal model and also measured propionic acid in various tissues such as liver, gut, and various regions of brain to know how it is distributed and to know how long it will remain in various tissues. It is important to note that autism is also characterized by gut, and involvement of other organs as well.

Is propionic acid treatment (model of autism studied by the authors) also produces changes in IL-6 and TNF and alters gut function?

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

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