Reviewer's report

Title: Dietary L-Arginine Supplementation Reduces Methotrexate-Induced Intestinal Mucosal Injury in Rat

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Reviewer: Moïse Coëffier

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Major Compulsory Revisions
1/ The authors choose to provide 2% Arginine in drinking water. What was the water intake in the different groups? The provision of arg in different models is associated with beneficial or deleterious effects according to the dose of supplied Arginine. It is thus important to know the dose of Arg really received by rats.

2/ In the present study, Arg was provided in drinking water in MTX-ARG group. In MTX group, animals received only water. Thus there was no isonitrogenous MTX group. Thus, the authors should be not able to conclude that Arg supply limits intestinal damage. Will other amino acids have similar effects? An additional group MTX-isonitrogenous AA should be done.

3/ How were expressed the mRNA levels? Bax to erk2? What was the housekeeping gene used to quantify bax and bcl-2 mRNA? For my opinion, Erk-2 mRNA cannot be used as housekeeping mRNA.

Minor Essential Revisions
1/ How the authors explain the difference between mRNA expression of BCl-2 in Jejunum and ileum in the MTX-ARG group?

2/ Did westernblot analysis of proliferation and apoptosis markers perform both in jejunum and ileum or only in jejunum. This point should be clarified.

3/ In figure 4, the standard error and statistical analysis should be provided in the densitometric analysis.

Discretionary Revisions
1/ In the introduction, the part on immunonutrition using impact solution is not necessary because in the present study, authors did not use n-3 fatty acids and data on this immunoenhancing diet are obtained in other pathophysiological conditions.

2/ Figure 4 legend should be more detailed

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:

'I declare that I have no competing interests'