Reviewer's report

Title: Distribution of enteric glia and GDNF during gut inflammation

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Reviewer: Helena HTH Tlaskalova-Hogenova

Reviewer's report:

Manuscript "Distribution of enteric glia .." deals with important topics. Involvement of enteric glia and GDNF in intestinal inflammation is very actual and interesting issue. Authors found increased numbers of enteric glial cells in gut of patients with ulcerative colitis and infectious colitis. In contrast, reduced expression of GFAP and GDNF was found in the colon of CD patients. The description of the Methods and Results is however not sufficient to convince the readers about the results.

Major Revisions:
I miss more detailed description of the patient’s group (e.g. period of taking the biopsy - activation or remission, how this is activity was graded etc). The description (definition) of inflammed and non inflammed colonic biopsies is not sufficient. I miss also the description from which areas of colon the specimens were taken (tissue distribution of samples).

I would recommend to describe at least briefly preparation of the samples for GFAP levels measurement.

From the Results it is not clear if the glial cells were identified in plexus submucosus or directly in lamina propria. To improve the microscopical finding it would be important to stain also neurons (to see the relationship with glial cells). To determine the type of cells expressing GFAP and GDNF is not possible from presented figures.

Minor Revisions:
I recommend to improve description of Figure 1 to precize the localization of the GFAP and GDNF expressing cells and to determine the areas where biopsies were taken.

In Discussion I would recommend to add some references related to sentence "that innate defects of the enteric glia network lead to a leaky mucosal barrier which influences the adaptive immune system".

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the
statistics.

Declaration of competing interests:

I declare that I have no competing interests.