Reviewer’s report

Title: Molecular prevalence of intestinal parasites infections in children with diarrhea in Franceville, southeast of Gabon.

Version: 0 Date: 10 Feb 2020

Reviewer: Graciela Teresa Navone

Reviewer's report:

The present study describes the prevalence of IPIs and associated parasites in children with diarrhea living in Franceville, southeast of Gabon. The diagnosis is mainly based on PCR technique. They also describe the clinical status and blood parameters of the children analyzed. Then, they study the association of intestinal infections with the age, and the seasonal variation of the parasite prevalence.

The following observations were included in the attached PDF MS

Abstract

(page 2)
Line 40: "helminths" is more frequently used word than "helminthes".

Introduction
The main objective is not clear. The authors said "By employing PCR, the aim of the current study was to assess the prevalence of IPIs and associated parasites in children with diarrhea living in Franceville, southeast of Gabon". But, they calculated only the prevalence of parasites of which they have primers available.

The authors calculated the prevalence of intestinal parasites by PCR, but also studies the association with the age, the seasonal variation of the prevalence and analyze blood samples and other clinical parameters. So, it is recommendable to also specify the following objectives: Seasonal, age and clinical parameter association of the intestinal parasite infections in the "Introduction".

(page 3)
Line 55: Blastocystis organisms isolated from humans have commonly been referred to as B. hominis. However, because of extensive genetic diversity (even among organisms isolated from humans) and low host specificity, the designation Blastocystis sp. is considered more appropriate.
Indeed, the work cited mentions this parasite as "Blastocystis spp."

Materials and methods

(Page 4)
Line 45: I don't understand the needed to include the time of sample collection. It is more important to specify the number of collected samples per child.
Lines 47-57: The parasites analyzed could be listed following a criterion, such as protozoan first, helminths secondly. It would be interested to specify why these parasites were selected.

Line 60: It is recommendable to specify the concentration, units or quantity of reagents employed, and the specific cycling programs for each gene. In this way, your protocol could be replicated by other researchers. For example, as a supplementary material or including (in the table 1) the reference of works where the primers were obtained.

Results

Line 29: It is recommendable to specify the age groups in years.

(page 7)
Line 40: "Children under 6 months of age were infected with 3 parasitic species of which Encephalitozoon intestinalis, Hymenolepis sp, and Trichuris trichiura". It is better replacing "of which" by "which are".
Line 44: It is better "24-month age group".

(page 8)
Line 20: The samples were collected between November 2016 and August 2017, so it is not clear how it was studied in a year period. The same number of samples must be analyzed in each month to be comparable. The authors studies 100 individuals, but during a long period of time. It is necessary to specify how many samples were analyzed in each period.

Discussion:

Line 12: change "intestinal parasites infections" by "intestinal parasite infections".

(page 10)
Line 45: The authors said "Unfortunately, The existence of parasites in direct examination was not seen in our study". This is better replacing it by "Parasites were not seen in our study"

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes
Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

Not relevant to this manuscript

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Please indicate the quality of language in the manuscript:

Acceptable

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