Reviewer's report

Title: HIV associated hypocalcaemia among diarrheic patients in northwest Ethiopia: A cross sectional study

Version: 2 Date: 2 February 2014

Reviewer: Netsanet Mengistu

Reviewer's report:

- Major Compulsory Revisions

1. Abstract section: the abstract mainly gives emphasis to HIV related figures than the diarrhea associated problems as it has indicated nothing about intestinal parasitosis, shigellosis and salmonellosis. This diverts the objective from the topic. It needs to be modified again!

2. In the Materials and Methods part:

2a. 1st paragraph: It is well understood that low blood levels of calcium may be caused by low levels of protein (albumin) in the blood, because about half of all calcium in the blood is attached to albumin. For this reason, an ionized calcium level (which is not attached to albumin) and a blood albumin level may also be measured. This may also go to alcoholic behavior of a patient and will be happy if I can see the data on the level of alcohol drinking practices of your study subjects. I ask this question because it is difficult to exclude these individuals like the other patients unless they had a liver damage history.

2b. Stool examination and culture: Please describe the following statement “The NLF colonies were further tested through a series of biochemical tests followed to identify Shigella and Salmonella species” in detail as the reference indicated is not the right one.

2C. The authors should show who the study subjects are? And how they have been recruited? What inclusion and exclusion criteria employed? This will hopefully solve the reason why they mentioned legal guardians of children in the ethical clearance section.

3. Result: Table 2: It is better that the total number and percentage of individuals with less than 8.5 mg/dl, 8.5-10.5mg/dl and >10.5mg/dl be shown in a different table. It can be Table 3. Table 2 will, therefore, contain only the Mean and Median values of Calcium level in each category of patients. Otherwise please use different table format which can show the number (percent) of study subjects with the corresponding mean and median values in two categories within a cell of a table.

4. Discussion section

4a. Paragraph 1: What could be the critical reason for the big difference among patients in the research done in Germany and in your case. Mainly focusing on their therapeutic profile or nutritional status? Will be good to elaborate more at
this point?

4b. Paragraph 2: Please give more clear description of the following statement:
“As all the participants of the current study were diarrheic, malabsorption and sepsis might account for part of the hypocalcaemia” showing the actual figures of patients with malabsorption and sepsis.

4C. Paragraph 3: Better to write HIV-1 protein, Vpr, enhances………

5-Ethical clearance section: what measures have you taken to hypocalcaemia patients identified in your study?

Minor Essential Revisions

6. Abstract section: Result part: Please show the actual figure in HIV negative patients comparing with calcium level of HIV diarrheic patients. The last statement of the Result part should be corrected as the values for females and males is exchanged unlike what can be seen in the table.

7. Stool examination and culture:

7a.-It is better to put specifications of reagents employed in brackets as shown below: Proper microbiological quality control was employed at each step of the procedure and American Type Culture Collection quality control strains of Escherichia coli (ATCC 25922) and Pseudomonas aeruginosa (ATCC 27853) were used.

7b.-Standar deviation should be written as SD not “S D” (eg. Result section, paragraph 2). In this same statement please: The mean ±S D serum calcium level (mg/dl) of the participants was 8.08±1.60 mg/dl.

8. Reference:

8a. Discussion paragraph 4: please italicize et al….Deng et al [59]. This should also be considered in most of the references indicated below.

8b. References 7, 8, 12, 14, 16, 17, 23 (names in capital letter?), 26, 39, etc please check namings if you have to use abbreviations of family names, also decide using one or two letters(eg. Riccardi D, Brown EM), full names(eg. Bemnet Amare, Solomon Meseret, …), and italicizing et al. Please also use full names of journals. Otherwise, please strictly follow the author’s guide of the journal regarding reference writing.

9. Table 1- percentage value of each category of results should be calculated taking 206 as 100% otherwise it is confusing to compare actual figures and their corresponding percentage values. The total values and percentage values of Normocalcaemia, Hypocalcaemia and Hypercalcaemia are Ok. Please also be consistent using terms “Hypocalcemia” or “Hypocalcaemia” in the table as well as in the manuscript if any. Similarly mg/dl and mg/dL in tables should be written with consistency.

10. Discussion: last paraagrap line 1. Please rephrase the statement.

Discretionary Revisions

11. Points indicated as weakness of the current study are well addressed. It
would, however, be good if you can at least see some of the OIs in HIV patients to strengthen your conclusions.

Minor comments

12. Introduction: Paragraph 1-The first statement need some grammatical correction like commas and the term 'with' at the end of the 2nd line is not appropriately introduced for reading. The second statement should be corrected as follows: They are also one of among the important causes of........The last statement of this paragraph should also be re- written in a better way.

13.-As editorial mistakes: leaving Space after commas eg. [20,22,26] and space between a number and unit of measurement eg. 8.5mg/dl; 37oC and 2ml should be well taken into consideration in all parts of the manuscript.

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'