Author’s response to reviews

Title: The Magnitude and correlates of Esophageal Varices among newly diagnosed Cirrhotic Patients Undergoing Screening Upper Gastrointestinal Endoscopy before incident bleeding in North-Western Tanzania; a Cross Sectional Study

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Author’s response to reviews:

Dear Sir;

REF: SUBMISSION OF A REVISED VERSION OF MANUSCRIPT BMGE-D-18-00776
I am glad to submit a revised version of our manuscript for a possible consideration of publication in your journal. Below is a point of point response to the reviewers and editors comments. The revisions are highlighted yellow to easy your reference. However an improvement in grammar has also been done as we were incorporating the comments raised.

REVIEWER #1
Specific comments

1. The reviewer had a comment that “The causes of cirrhosis should be clearly defined”

RESPONSE: This study included a mixed cohort of patients with different causes of liver cirrhosis. However more than 50% of our participants had history of alcohol intake and most tested positive for hepatitis B and C. Due to resource limitation we cannot work out adequately enough to diagnose such causes like biliary cirrhosis. However regardless of the causes of liver cirrhosis the variceal complications are still common and they occur with advanced liver disease. We think this study will add to the existing knowledge regarding this problem especially in resource limited setting like ours.

2. Also the reviewer wished to know if “there were patients with non cirrhotic portal hypertension”

RESPONSE: The current study didn’t include patients with non cirrhotic portal hypertension which in our setting is mainly due to schistosomiasis. Because the area is highly endemic for schistosomiasis we have an ongoing study exploring how best we can maximize the outcome of patients with schistosoma related portal hypertension.

3. It is not clear which factors are significant in the univariate analysis and which in the multivariate analysis. For example age and being married. The statistics should be better defined and analyzed.

RESPONSE: The reviewers comment is worked on. The p value for factors in univariate analysis to be included in the final model is reset at p<0.05 and re analysis is done accordingly.

4. The majority of patients had ascites (83.41%), low albumin levels etc. So the majority suffered from decompensated cirrhosis. Only few had compensated cirrhosis. Probably the group of patients which was examined was not representative.

RESPONSE: This study included all cirrhotic patients who were attending the outpatients’ clinic for the first time and undergoing the recommended endoscopic screening for esophageal varices. The enrolment was serial until the sample size was rigged. And what we see upon re analysis including the child pug grading most about 90% were between grade B and C and the varices were more common with Grade C

5. Child - Pugh score was not examined and analyzed.

RESPONSE: The reviewers comment is worked on. Revisit of our patients’ record has been done to include information that enabled calculation of Child Pugh score and its relationship to the presence of esophageal varices is additionally assessed and discussed.

REVIVER #2
General comment

This paper was reported to clarify the rate of having esophageal varices in liver cirrhosis patients in Tanzania. I think this result is valuable for the patients in Tanzania. However, I cannot find out the author's opinion for liver cirrhosis patients. Should they have a endoscopic examination or not?

RESPONSE: Our results emphasize the importance of endoscopy in all cirrhotic patients

Specific comments

1. Unfortunately, the impact is very low in this manuscript. Many readers already know that the presence of ascites, decrease of albumin and splenomegaly are the predictor of esophageal varices. In present paper, the authors described that 40% of liver cirrhosis patients potentially had the esophageal varices and described, "Bleeding is the deadly complication of esophageal varices which commonly occurs within the first two years of diagnosis. About the endoscopic screening for liver cirrhosis patient, please mention the author's opinion. I recommend the BMC gastroenterology readers to perform the endoscopic examination for liver cirrhosis patients.

RESPONSE: This reviewers concern is taken and it is well addressed in the discussion well put under the conclusion part. Based on the results endoscopy remains extremely important among patients with liver cirrhosis for diagnosis, guidance of treatment option, and follow up. This is because about 2/3 of those with varices (40%) had large varices. Those who did not have varices still need a follow up endoscopy to the best of our experience and literature

2. In material and method section, the introduction of your hospital is not necessary for many readers. Please delete this description. (p4 lines4-10)

RESPONSE: The reviewers comment is worked and the description of the hospital is deleted as commented.

3. The description about the ultrasonographic features of liver cirrhosis is not necessary (p4 lines 16-20). And the amount of endoscopic examination in your hospital is not necessary either (lines23-24).

RESPONSE: The reviewers comment is worked on and the sonographic features of cirrhosis and the amount of endoscopy in our hospital has been deleted as suggested

4. In the result section, the authors described thrombocytopenia was the factor associated with esophageal varices (p6, line 1). But this description is not correct. In the table 2, the platelet counts more than 100 were the predictor of presence of esophageal varices. Therefore, 'thrombocytosis' (not thrombocytopenia) is the predictor.
RESPONSE: We are grateful for this observation. We had slight copying errors in this table 2 and 3. The tables 2 and 3 have been corrected taking care of the concern raised by the reviewer.

5. The authors should also mention about the relation between PSDR and esophageal varices in the result section.

RESPONSE: The point is taken. PSDR is added in the results section as recommended.

6. Being married" was written as the predictive factor of esophageal varices. However, the reason was not described in this paper. Please discuss this factor more in detail

RESPONSE: The reviewers comment is taken. As pointed out there has not been any study with similar findings. We have tried assessing for interaction of the marital status with other factors (analysis not shown under results) seemingly the married once were male patients who were also more likely to have hepatitis B and C infection but also with increased of high Child Pugh score. This is highlighted in the discussion.

7. There were many reports that spleen and liver elastography were predictors of esophageal varices existence. How about this value in present study

RESPONSE: of the factors that are being investigated as non invasive tools for diagnosis of presence of esophageal varices and varices in need of treatment liver stiffness and spleen stiffness are included. This requires a Fibro scan which of the mean time is still not available for routine use in our setting. So this was not assessed in the current study.

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