Reviewer’s report

Title: Circulating cathelicidin levels correlate with mucosal disease activity in ulcerative colitis, risk of intestinal stricture in Crohn's disease, and clinical prognosis in inflammatory bowel disease

Version: 0 Date: 16 Feb 2017

Reviewer: Robert Batat

Reviewer’s report:

This is an interesting, novel study assessing LL37 serum levels and IBD disease characteristics/outcomes.

Abstract:

Syntax/editing needed generally

Also, claim to be attempting to determine if this marker reflects IBD disease development, which was not done in this study.

Introduction

Generally needs English editing. First sentence for example.

Focus on strictures, but no mention of fistulas which carry significant morbidity in CD.

This biomarker not elevated in CD but we are analyzing it?

Methods:

Objectives: should not be in point form

Unclear why only aiming for intestinal stricture formation, especially if these can be either non inflammatory (fibrostenotic) or inflammatory. Also unclear why general disease phenotype is not analyzed. No mention of penetrating disease.

LL37 as prognostic factor, was therapy used/other variables controlled for?

General editing: example: blood was collected for "healthy control" should read controls.

Names of doctors collecting samples not needed
Cohort 1: which center were they collected from.

Unclear why 2 cohorts were used

Inclusion criteria: IBD patients? Not stated.

Clinical and Endoscopic scores: collected prospectively or retrospective, if the latter, then how were they scored.

LL37 and CRP collection: At a one time visit with cross sectional clinical/endoscopic data collection? Unclear and not well described.

Power analysis: calculated to determine differences between CD and UC but these were not the aims of the study.

Results:

What is mean LL37 levels in figure 1B and mean CRP in fig 1c (remission/different disease activities)

Figure 2: sensitivities/specificities should be mentioned in the text

Page 9: Is the outcome clinical remission or steroid free clinical remission? Both should be analyzed. Furthermore, you should control for medication use to avoid confounders. This should be done for both UC and CD

Cutoffs for endoscopic scores (LL37 and CRP) along with AUC should be mentioned in text. This is an important point and specificities should be mentioned in text

I believe the logic of clinical remission leading to strictures is flawed. Active disease predisposes to strictures. Therefore the clinical utility of combining clinical remission with low LL37 is questionable. Furthermore, it should be differentiated if these were considered fibrostenotic strictures or inflammatory strictures if possible.

Conclusion: should not be point form

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

No

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

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

No

**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.

I recommend additional statistical review

**Quality of written English**
Please indicate the quality of language in the manuscript:

Not suitable for publication unless extensively edited

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