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Title: Use of Shape-from-Shading to Characterize Mucosal Topography in Celiac Disease Videocapsule Images  
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Reviewer code: 00039306 and 00003692  
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We thank the reviewers and editor for their kind assistance in improving the quality of the manuscript. All changes are shown in the manuscript.

#### Reviewer 1

I received the paper reviewed by two previous reviewers along with the response by the authors. I have seen that all the points raised by the reviewers are substantial. Authors acknowledged the points raised by the reviewers and modified accordingly the manuscript. In particular, the new statistical analysis lead to a more scientific than descriptive study. Overall, the quality of the paper has been improved. Nevertheless, the main drawback of the study relies on the validity of the quantitative approach to the shape-from-shading method. Even though the paper is far from being a useful tool for the clinical management of CD patients, it shows an interesting new approach to be validated in a prospective way and bigger sample size in order to clarify the potential use in specific clinical situations of CD patients.

We thank the reviewer and now state (pp 16-17):

Use of a larger sample size in subsequent studies should be assistive to clarify the specific clinical settings in which this methodology will be useful. The Marsh scoring of celiac patient data shown in Figure 5 is not entirely aligned with the magnitude of the x and y variables, perhaps suggesting that there is a lag between cellular-level phenomena and gross architectural structure.

#### Reviewer 2

Probably limited applicability in clinical care, but still interesting. The number of patients with celiac disease (how were these actually diagnosed...initial biopsy and then re-biopsy after gluten free diet?).

We thank the reviewer and improved these descriptions (pp 5-7).

The use of Marsh criteria, while also interesting, makes further division of the study population difficult to develop any definite conclusions.

We now state (p 17):

The Marsh scoring of celiac patient data shown in Figure 5 is not entirely aligned with the magnitude of the x and y variables, perhaps suggesting that there is a lag between cellular-level phenomena and gross architectural structure.

Nevertheless, the pictures are attractive, including the efforts to provide some form of scientific evaluation on their interpretation. I am not convinced that this manuscript adds a great deal to the literature on celiac disease, especially with small samples sizes, but it is interesting, and therefore, something that the readership might find useful. The author needs to emphasize that the data sample size makes interpretation of the data very difficult.

We state (pp 16-17):

The series of patients used for celiac versus control cohorts,  $N = 8$  each, should be increased for confirmation of the results. Use of a larger sample size in subsequent studies should be assistive to clarify the specific clinical settings in which this methodology will be useful.