Reviewer's report

Title: Validation study of villous atrophy and small intestinal inflammation in Swedish biopsy registers

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Reviewer: Riccardo Troncone

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In this paper the Authors have searched all pathology Departments in Sweden with the aim of validating the histopathological classification of small intestinal biopsy by Swedish pathologists. They found a 90 % correct classification of biopsies labeled as villous atrophy and only 56% of those characterized by mucosal inflammation.

Although there was no effort to further grading villous atrophy according to the severity of mucosal damage this is the most interesting and sound part of the paper. The finding of high specificity for coeliac disease of villous atrophy is useful to use those histological reports as a data source for coeliac disease.

Over the last decade the concept that CD may be characterized by minor enteropathy has emerged. It would be important to know the specificity for the diagnosis of CD of such minor degrees of enteropathy (here considered as “inflammation”). It is unexpected the very low percentage of causes other than celiac disease responsible for that (less than 2% attributed to IBD). In this respect table 4 is unclear: should the second column read VA and not CD?

The authors wish also to look for other info (i.e. characteristics of serology, symptoms of individuals with celiac disease, use of small biopsies for the diagnosis of coeliac disease), but the data reported in this second part of the paper do not allow to draw firm conclusions.

The paper, although potentially providing useful info (specificity for diagnosis of different histological patterns) is in many sections not clearly written and difficult to follow. It aims to answer too many questions at one time. Limitations of the methodological approach are not satisfactorily discussed. It needs extensive revision and clarification.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.