Reviewer's report

Title: Limited utilization of serologic testing in patients undergoing duodenal biopsy for celiac disease

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Reviewer: Raffaella Nenna

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The paper of Homer O Wiland 4th et al. investigated the causes of a high number of negative biopsies in the diagnosis of celiac disease. It could be an interesting topic but further clarifications are needed.

Major Compulsory Revisions:

1. Chart review: you revised clinical data only from the 161 patients who had positive results for either serology or duodenal biopsy. Did you consider if among patients negative for serology/biopsy there were celiacs on gluten free diet (GFD)?
2. Chart review: you considered patients to be affected by CD if they had both positive serologic and biopsy results although adults with CD may also have negative antibodies (A report on the international transglutaminase autoantibody workshop for celiac disease. Am J Gastroenterol. 2009; 104: 154–163).
3. Results: page 7, lines 18-21# Recent findings (Duodenal bulb biopsies in celiac disease: a multicenter study. J Pediatr Gastroenterol Nutr 2008;47:618–22; Importance of duodenal bulb biopsies in children for diagnosis of celiac disease in clinical practice. BMC Gastroenterol 2009;9:78) suggest that CD could be limited to the duodenal bulb or have a so called “patchy” pattern. Performing only one biopsy could lead to miss diagnosis. Did you consider the biopsy site?
5. In Table 1 you should consider PVA as CD (1.6% + 6.2% and 1% + 4.4%).

Minor Essential Revisions:

1. Introduction: page 3, lines 1# insert “space” between is one.
2. Introduction: page 3, lines 9# correct disease with diseases.
3. Introduction: page 3, lines 11-20# you wrote that “diagnostic options for celiac disease can be divided into three categories[...]”. However what you discussed later are not “options” but different steps through the diagnosis of CD.
4. Introduction: page 4, lines 3-5# please indicate performances of each autoantibodies (tTG, dGDN, EMA).

5. Materials and Methods: page 5 # please provide patients sex, age range and median age.

6. Materials and Methods: page 5 # please provide autoantibodies positive patients divided as tTG +, dGDN + or EMA +.

7. Materials and Methods: page 5 # please check total serum IgA titer in order to identify patients with serum IgA deficiency.

8. Results: page 8, lines 3-5 # We are not surprised about that as extra-intestinal findings in CD have already been studied (Endoscopic and histological gastric lesions in children with celiac disease: mucosal involvement is not only confined to the duodenum, J Pediatr Gastroenterol Nutr. 2012 Dec;55(6):728-32; Lymphocytic gastritis in pediatric celiac disease, Pediatr Dev Pathol 2011;14:280-3.) Please compare your results to others.

9. Table 2: please provide percentage values.

10. Table 2: PVA results should be unified with CD results.

**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.

**Declaration of competing interests:**

I declare that I have no competing interests