Reviewer's report

Title: Follow-up of pediatric celiac disease: Value of antibodies in predicting mucosal healing, a prospective cohort study.

Version: 1 Date: 30 December 2013

Reviewer: Carlo Catassi

Reviewer's report:

This is an interesting study aimed to compare the performance of antibody tests in predicting small-intestinal mucosal status in diagnosis vs. follow-up of pediatric CD. In general antibody tests, especially DPG-IgA, were found to be of limited value in predicting the mucosal status in the early years post-diagnosis. Among the CD antibodies examined, negative EMA most reliably predicted mucosal healing. However, 12 out of 53 subjects with treated CD showed contrasting results of serum EMA (positive) and intestinal biopsy (mucosal healing).

This is a well-done and properly presented study. The high percentage of EMA positivity and the very low frequency of Isolated increase of IEL count (Marsh 1) among treated CD children are somewhat unexpected findings.

I have a few comments:

Major:

1. Page 6 line 15: authors should explain here the criteria for re-biopsy group B patients: were they unselected and chosen by willingness to participate in the study, were them the less compliant to the treatment according to dietary interview, and so forth;
2. Page 9 line 4: the result of the small intestinal biopsy in these 3 patients should be described (where they all Marsh 0?)
3. Page 9 line 22, it is not clear whether the duration of GFD was on average lower in subjects with EMA-positivity despite mucosal healing

Minor:

4. Page 10 line 12: authors should comment on the surprisingly low percentage of children with treated CD and Marsh 1 at biopsy (1.8%). Could it be related to the somewhat high cutoff for increased IEL count (30)?
5. Page 11 line 15: authors assume that the finding of EMA in CD subjects showing mucosal healing indicate a “false” positivity. However adherence to the dietary treatment was not evaluated in this study nor were IgA deposits in the small intestinal mucosa. It is well possible that serum EMA positivity is more sensitive than gross histological damage to detect minor dietary transgression.

Quality of written English: Acceptable
Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I have worked as scientific advisor of Menarini Diagnostics