Author's response to reviews

Title: Increasing prevalence and high incidence of celiac disease in elderly people: A population-based study

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Author's response to reviews:

Rikki Graham, PhD
Senior Assistant Editor
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Dear Rikki Graham

We are grateful of the constructive comments of the reviewers. We have no revised the text accordingly, and the revisions are highlighted with red and described item by item below.

Comments for the reviewer 1 (JM)

1. Upon the first screening, the tissue transglutaminase antibody values were clearly below the reference value (5 U), and antibody levels increased during the follow up. The test results for the new cases have now been given in the new table (Table 1; Results, second Paragraph, and Discussion, second Paragraph)

2. Unfortunately, we do not have sera available to re-test the initial negative results of the patients who underwent positive seroconversion. However, we refer to the Table 1 in the revised manuscript, and have discussed this issue (Discussion, Paragraph 2).

3. One of the new celiac patients (Shown in figure 1, case no 4 in Table 2) had immunosuppressive treatment upon the first and second screening. This has been stated in the text, page 7.

4. Finland is genetically very homogeneous, and the GOAL project is considered representative for the whole country. This has been expressed in the Discussion, page 8, bottom.

5. The study was carried out in a defined area, but we refer to our comment 4. Of
course it is possible that the patients had seronegative celiac disease and became seropositive later. However, we think that this process is unlikely. We have earlier reported that elderly people with celiac disease are more often seronegative than younger, and we have made a short comment into the text (Discussion, Paragraph 3, and the new reference No 12).

We do not know the number of seronegative celiac patients in these series, because it was impossible to take small bowel biopsy from all subjects. We must rely on the sensitivity of tTgA test here, see Discussion, Paragraph 3).

6. Representative figures of the new biopsy results have been given in figure 1. The newly detected celiac disease patients were originally seronegative, and therefore we do not have any earlier biopsy samples from these five patients. The prevalence of seronegative celiac disease remains obscure (see comment 5)

Comments for reviewer 2

1. We agree that the occurrence of celiac disease in the elderly was published earlier. However, we think that these 5 new cases demonstrate that celiac disease can also develop later in life. We see that this finding is very important from the clinical point of view. We emphasize that it was the same population which was screened again. This has been expressed in Discussion, last Paragraph.

In addition, we screened 199 individuals for the first time (results, last Paragraph) and the results were supporting our earlier data.

2. To divide these patients into two separate age groups would make the number of cases small in both groups. We consider that the age limit 55 years is quite sensible, and the ages of individual cases by the time of diagnosis have now been given (Table 1).

3. Four biopsy samples were taken; this has been stated in the Methods, page 5. Marsh classification was not applied here. However, all new biopsy proven cases had Marsh III atrophy, this has now been written in the text, page 7, line 2; we feel that this statement does not need a new reference. We also report the frequency of seropositive without atrophy, because these patients are likely to develop overt symptomatic celiac disease, see Discussion, Paragraph 1. We give one additional reference (No 11 in the revised manuscript).

4. We refer to the comment for the reviewer 1 (item 1). We have now given the unit values of the new seropositive cases in the new Table 1. See Results, second Paragraph, and Discussion, second Paragraph.