



COMMENT ON CASTELLANETA ET AL.

## High Rate of Spontaneous Normalization of Celiac Serology in a Cohort of 446 Children With Type 1 Diabetes: A Prospective Study. *Diabetes Care* 2015;38:760–766

Giulio Maltoni, Silvana Salardi, and Stefano Zucchini

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We read with interest the data reported by Castellaneta et al. (1) about the spontaneous normalization of autoantibody markers for celiac disease (CD) in a wide population of children and adolescents with type 1 diabetes mellitus (T1DM). The authors hypothesized that this phenomenon could be related to a state of temporary positivity of celiac serology in children with T1DM. They concluded that a gluten-free diet should be delayed in the absence of clinical signs of CD and that these subjects should be carefully followed up with serological and histological tests for a confirmation of the diagnosis.

We partially agree with the authors' conclusions, and we would like to share our experience about the association of T1DM and CD, highlighting some differences previously reported. We investigated the prevalence of CD in a cohort of 331 newly diagnosed subjects with T1DM (2) over an 18-year follow-up based on anti-endomysial antibody (EmA) screening. We found that 7 of 29 subjects (24%) showed positivity for EmA detected at T1DM onset or during routine follow-up. The laboratory findings were confirmed by subsequent evaluations. Three of them underwent biopsy before normalization and a normal mucosa was found. In all of these

subjects, EmA spontaneously seroconverted and became negative during a follow-up of 2–8 years. Castellaneta et al. cited another study (3) on EmA screening in subjects with T1DM that reported that 30% of EmA-positive children were already found negative at the second assay. However, the authors confirmed that all these subjects had a weak EmA reactivity. In the study by Castellaneta et al. (1), the median time for tTG normalization was shorter than in our study, 1.3 years. We think it is unlikely that EmA can have a longer time for normalization than tTG, as the authors affirmed that they did not find any cases that were both EmA positive and tTG negative. A different interpretation may be that this is not related to gluten consumption (all the children who normalized CD-related antibodies follow a gluten-containing diet), but it is simply an epiphenomenon of the autoimmune activation shown in subjects with T1DM. In fact, Waisbourd-Zinman et al. (4) also reported a study on spontaneous normalization of tTG in subjects with T1DM; the data showed that up to one-third of subjects with positive tTG levels seroconverted within 1 year of follow-up. Surprisingly, they found that sometimes EmA did not normalize accordingly to tTG: in fact, 3 of 10 subjects with EmA- and

tTG-positive levels not on a gluten-free diet showed only tTG normalization during the follow-up period. Therefore, the association between CD and T1DM still remains a fascinating field of study with many aspects still to be clearly understood. In subjects with a predisposition for autoimmune diseases, autoantibodies can appear even at a low titer, and their meaning needs to be carefully interpreted.

**Duality of Interest.** No potential conflicts of interest relevant to this article were reported.

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Department of Pediatrics, S.Orsola-Malpighi Hospital, University of Bologna, Bologna, Italy

Corresponding author: Giulio Maltoni, giulio.maltoni2@unibo.it.

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