



Correspondence

Celiac disease in type 1 diabetes mellitus: What are the implications of early diagnosis?

Sir,

I read with interest the article by Bhadada *et al*¹ on celiac disease in patients with type 1 diabetes mellitus (T1DM). In this retrospective study, the authors have compared children having celiac disease (CD) with T1DM and those with CD alone, and found that patients with CD alone are likely to be older and have more advanced disease when compared to the former group. All these findings are attributable to the fact that patients with T1DM are routinely screened for CD and hence are diagnosed even at asymptomatic stage, while those who present with symptoms of CD are likely to be older with overt manifestations of CD.

Association of CD with T1DM is a well-known phenomenon. Importance of this association is highlighted in view of the data suggesting that the patients with T1DM who have CD are more likely to have microvascular complications as compared to those without CD². However, the effect of gluten-free diet (GFD) is not yet clear in this group of patients.

Importantly, up to two-thirds of individuals diagnosed with CD by screening patients with T1DM may be asymptomatic³. Elevated tissue transglutaminase IgA antibodies have been known to be spontaneously normalized in some patients with T1DM⁴. On the other hand, initially negative antibodies may become detectable at a later stage, hence there is a need for repeated testing in these individuals at least till the age of 10 yr from diagnosis of T1DM⁵.

While diagnosing asymptomatic patients with T1DM with CD one should take into consideration the added burden of two diseases at an early age, which remain with the patient for life and entail significant dietary and lifestyle changes. This is important since there is lack of clarity related to the impact of GFD on patients with T1DM with asymptomatic CD. A

study which is likely to clarify these issues is an ongoing randomized controlled trial in patients with T1DM with asymptomatic CD to look for the effect of GFD on glycaemic control, bone density and general well-being⁶. A recent review article on the basis of available data has suggested that a small bowel biopsy must be done in patients with T1DM with persistently detectable antibodies and should lead to advice of GFD even in those asymptomatic for CD⁷.

Conflicts of Interest: None.

Ankur Gupta

Department of Gastroenterology, Sahara Hospital,
Lucknow 226 010, Uttar Pradesh, India
mail.guptaankur@gmail.com

Received August 24, 2017

References

1. Bhadada SK, Rastogi A, Agarwal A, Kochhar R, Kochhar R, Bhansali A, *et al*. Comparative study of clinical features of patients with celiac disease & those with concurrent celiac disease & type 1 diabetes mellitus. *Indian J Med Res* 2017; 145 : 334-8.
2. Rohrer TR, Wolf J, Liptay S, Zimmer KP, Fröhlich-Reiterer E, Scheuing N, *et al*. Microvascular complications in childhood-onset type 1 diabetes and celiac disease: A multicenter longitudinal analysis of 56,514 patients from the German-Austrian DPV database. *Diabetes Care* 2015; 38 : 801-7.
3. Poulain C, Johanet C, Delcroix C, Lévy-Marchal C, Tubiana-Rufi N. Prevalence and clinical features of celiac disease in 950 children with type 1 diabetes in France. *Diabetes Metab* 2007; 33 : 453-8.
4. Castellaneta S, Piccinno E, Oliva M, Cristofori F, Vendemiale M, Ortolani F, *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 : 760-6.
5. Pham-Short A, Donaghue KC, Ambler G, Chan AK, Craig ME. Coeliac disease in type 1 diabetes from 1990 to 2009: Higher

incidence in young children after longer diabetes duration.
Diabet Med 2012; 29 : e286-9.

6. Mahmud FH, De Melo EN, Noordin K, Assor E, Sahota K, Davies-Shaw J, *et al*. The Celiac Disease and Diabetes-Dietary Intervention and Evaluation Trial (CD-DIET) protocol: A randomised controlled study to evaluate treatment of asymptomatic coeliac disease in type 1 diabetes. *BMJ Open* 2015; 5 : e008097.
7. Weiss B, Pinhas-Hamiel O. Celiac disease and diabetes: When to test and treat. *J Pediatr Gastroenterol Nutr* 2017; 64 : 175-9.