

Gluten, the Usual Suspect? A unifying hypothesis on the development of type 1 diabetes and celiac disease: Gluten consumption may be a shared causative factor

G. Frisk *, T. Hansson, I. Dahlbom, T. Tuvemo
Department of Women's and Children's Health, Uppsala University, Akademiska Hospital, Uppsala, Sweden--Medical Hypotheses (2008) xxx, xxx-xxx

Summary: This paper presents a hypothesis to help explain the rising incidence of type 1 diabetes (T1D) in the population within the background of increased incidence of celiac disease (CD). In their argument, genetics does not alone explain the overall increase in both CD and T1D, and in invoking Ockham's razor, they speculate that a shared environmental trigger, gluten, may be implicated in both. Though gluten has not yet been directly linked as a cause for T1D, its role in CD has more clearly been demonstrated. Associations have been drawn between the duration of exposure to gluten with a parallel rise in T1D prevalence. In addition, T1D patients at onset of disease have an inflammatory reaction in the gut, allowing speculation for an external trigger. Thus they make the prediction that early diagnosis of CD followed by elimination of dietary gluten will lead to a decreased incidence of T1D.

It has been demonstrated that gluten exposure may worsen the course of T1D in those that have CD. In addition, the initiation of a GFD can lead to disappearance of diabetes related antibodies in the blood, increase in height and weight, a trend toward improved glycemic control and improvement in insulin doses[1-3]. However, it isn't clear whether gluten plays a direct role in the development of T1D, and whether the treatment of CD will reduce the likelihood of developing autoimmune disorders in their lifetime. However this remains an intriguing question.

Bottom line: Gluten free diet is the key to celiac disease management, and possibly beyond.

Mala Setty, MD

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Department of Women's and Children's Health, Uppsala University, Akademiska Hospital, Uppsala, Sweden
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