

## October 10/08: Celiac Disease and Autoimmune Diseases

The prevalence of autoimmune diseases is increased in patients with celiac disease (CD) when compared with a control population. The other way round, patients with autoimmune diseases have an increased risk for CD.

The authors of the following study aimed to evaluate the effect of gluten-free diet on the prevalence of autoimmune diseases in CD:

Cosnes J, Cellier C, Viola S et al

### **Incidence of Autoimmune Diseases in Celiac Disease: Protective Effect of the Gluten-Free Diet**

*Clin Gastroenterol Hepatol 2008; 6: 753–758*

27 French pediatric and adult gastroenterology centers collected the data of 924 celiac patients. 178 (almost 20%) developed one or several autoimmune diseases. Factors associated with an increased risk were family history of autoimmunity and diagnosis of CD before 36 years of age. The incidence of autoimmune diseases was 5.4 per 1000 patient-years during adherence to a gluten-free diet versus 11.3 per 1000 patient-years during non-adherence to the diet. Results were similar in both the pediatric and the adult populations. The authors conclude that the gluten-free diet has a protective effect.

A lately published multicenter study of Italian pediatricians showed the association of autoimmune liver disease with CD in childhood:

Caprai S, Vajro P, Ventura A et al

### **Autoimmune Liver Disease Associated With Celiac Disease in Childhood: A Multicenter Study**

*Clin Gastroenterol Hepatol 2008; 6: 803–806*

In the period between 1990 and 2005, 140 pediatric patients with autoimmune liver diseases were tested for CD. In 23 cases (16.4%) CD was diagnosed. In most cases (18 of 23) the diagnosis of CD was already established and preceded the diagnosis of liver disease. CD was discovered newly in 5 patients. All patients on gluten-free diet achieved remission of liver disease on immunosuppressive therapy, 14 relapsed because of discontinuation of therapy or during spontaneous gluten challenge. Only 3 of 23 CD patients could stop immunosuppressive treatment, all others are still on therapy. The authors conclude that autoimmune liver diseases are frequently associated with CD but they might remain undiagnosed. Doctors should be aware that acute hepatitis in celiac patients could be of autoimmune origin. It is recommended to test all patients with autoimmune liver disease for CD.

Another Italian group at the University of Bologna wanted to know whether the prevalence of the association between type 1 diabetes mellitus and CD has changed in the last years:

Salardi S, Volta U, Zucchini S, Fiorini E, Maltoni G, Vaira B, Cicognani A

### **Prevalence of Celiac Disease in Children With Type 1 Diabetes Mellitus Increased in the Mid-1990s: An 18-year Longitudinal Study Based on Anti-endomysial Antibodies**

*J Pediatr Gastroenterol Nutr 2008; 46: 612–614*

Between 1987 and 2004, 331 consecutive children, all newly diagnosed with type 1 diabetes, underwent repeated serological screening for CD by means of anti-endomysial antibodies, measured prospectively between 1994 and 2004, and retrospectively between 1987 and 1993. There were 22 cases (6.6%) of biopsy-proven CD among the 331 diabetic children. The prevalence of CD was significantly higher after 1994 (10.6%) than before 1994 (3.3%). All tests were carried out in the same reference immunology laboratory with the same method. These observations suggest that the risk of CD increased in Italian diabetic children after 1994. It is conceivable that CD has increased also in the general pediatric population. An increased prevalence of CD was already shown for the pediatric population in the Netherlands from 1996 onward. The authors of this paper attributed the increase to doctors having a greater awareness and better diagnostic tools. However, the present publication suggests it conceivable that these two concordant studies do indeed reflect a true increase in CD prevalence.

