

Association Type 1 Diabetes and Celiac Disease in Adult Patients

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Abstract : Introduction: Celiac disease (CD) and type 1 diabetes mellitus (T1D) are complex disorders with shared genetic components. The association between CD and T1D has been reported in many pediatric series. The aim of our study is to describe the epidemiological, clinical and evolutive characteristics of adult patients presenting this association. Material and Methods: This is a retrospective study including patients diagnosed with CD and T1D, explored in Internal Medicine, Gastroenterology and Endocrinology and Diabetology Departments of the Farhat Hached University Hospital, between January 2005 and June 2016. Results: Among 57 patients with CD, 15 patients had also T1D (26.3%). There are 11 women and 4 men with a median age of 27 years (16-48). All patients developed T1D prior to the diagnosis of CD with an average duration of 47 months between the two diagnosis (6 months-5 years). CD was revealed by recurrent abdominal pain in 11 cases, diarrhea in 10 cases, bloating in 8 cases, constipation in 6 cases and vomiting in 2 cases. Three patients presented cycle disorders with secondary amenorrhea in 2 patients. Anti-Endomysium, anti-transglutaminase and Anti-gliadin antibodies were positive respectively in 57, 54 and 11 cases. The biological tests revealed anemia in 10 cases, secondary to iron deficiency in 6 cases and folate and vitamin B12 deficiency in 4 cases, hypoalbuminaemia in 4 cases, hypocalcemia in 3 cases and hypocholesterolemia in 1 patient. Upper gastrointestinal endoscopy showed an effacement of the folds of the duodenal mucosa in 6 cases and a congestive duodenal mucosa in 3 cases. The macroscopic appearance was normal in the others cases. Microscopic examination showed an aspect of villous atrophy in 57 cases, which was partial in 10 cases and total in 47 cases. After an average follow-up of 3 years 2 months, the evolution was favorable in all patients under gluten-free diet with the necessity of less important doses of insulin in 10 patients. Conclusion: In our study, the prevalence of T1D in adult patients with CD was 26.3%. This association can be attributed to overlapping genetic HLA risk loci. In recent studies, the role of gluten as an important player in the pathogenesis of CD and T1D has been also suggested.

Keywords : celiac disease, gluten, prevalence, type 1 diabetes

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