

## Celiac Disease and Autoimmune Diseases

**Yasin Sahin**<sup>1,2\*</sup>

<sup>1</sup>Associate Professor, Clinics of Pediatric Gastroenterology, Dr. Ersin Arslan Training and Research Hospital, Gaziantep, Turkey

<sup>2</sup>Associate Professor, Clinics of Pediatric Gastroenterology, Faculty of Medicine, Gaziantep Islam Science and Technology University, Gaziantep, Turkey

**\*Corresponding Author:** Associate Professor Yasin Sahin, Clinics of Pediatric Gastroenterology, Faculty of Medicine, Gaziantep Islam Science and Technology University, Gaziantep, Turkey.

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Celiac disease (CD) is an immune-mediated systemic disease, its prevalence is approximately 1% in the world [1]. Its prevalence is higher in children with concomitant autoimmune disorders including juvenile idiopathic arthritis (JIA), autoimmune hepatitis, autoimmune thyroiditis, type 1 diabetes mellitus and others [2].

It has been reported that the biopsy-proven prevalence of CD in autoimmune hepatitis is 4.1% in a systematic review [3]. In a study conducted in 2018, the prevalence of CD in children with autoimmune thyroiditis is found to be 3.0% [4]. The prevalence of CD in patients with JIA has been reported to be 2.5% [2]. Its prevalence is estimated to be higher due to several study limitations. It has been reported that since most JIA patients diagnosed with CD are asymptomatic, screening tests are recommended. But there is no evidence on how often screening tests will be performed in children with concomitant rheumatic diseases [2,5-7]. In a study conducted in 2020, the biopsy-proven prevalence of CD was detected as 4.4% in children with type 1 diabetes mellitus [8].

In patients with autoimmune diseases known to occur with CD (especially autoimmune thyroiditis, type 1 diabetes mellitus, juvenile idiopathic arthritis, and autoimmune hepatitis), screening for CD and subsequent gluten-free diet if CD is detected may have beneficial effects on the progression or possible complications of both diseases. In a study conducted in 2008, it has been reported that a gluten-free diet is protective against the development of autoimmune diseases [9]. However, it is controversial whether a diagnosis of CD and gluten-free diet therapy can prevent autoimmune diseases [10].

In conclusion, since CD is a life-long systemic disease, early diagnosis and treatment is very important to prevent long-term complications. Because most patients diagnosed with CD are asymptomatic, screening tests for CD are recommended in autoimmune diseases. But there is no consensus on how often it will be performed. If there is a symptom associated with CD, serological screening tests for CD should be done. If tests are found positive, gastroduodenoscopy and multiple small intestinal biopsies should be performed to confirm the diagnosis of CD. Also, CD can be diagnosed without biopsy according to ESPGHAN guidelines in 2020 [11].

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