

Celiac disease and role of a gluten-free diet

Maryam Sardarodiyani¹, Esmaeil Ataye Salehi^{2*}

¹Young Researchers and Elite Club, Quchan Branch, Islamic Azad University, Quchan, (Iran)

²Department of Food Science and Technology, Quchan Branch, Islamic Azad University, Quchan, Iran

Abstract: Celiac disease, also known as gluten-sensitive enteropathy and nontropical sprue, is a prevalent autoimmune disorder that is triggered by the ingestion of wheat gluten and related proteins of rye and barley in genetically susceptible individuals. The immune response in celiac disease involves the adaptive, as well as the innate, and is characterized by the presence of anti-gluten and anti-transglutaminase 2 antibodies, lymphocytic infiltration in the epithelial membrane and the lamina propria, and expression of multiple cytokines and other signaling proteins. The disease leads to inflammation, villous atrophy, and crypt hyperplasia in the small intestine. In addition to the intestinal symptoms, celiac disease is associated with various extra-intestinal complications, including bone and skin disease, anemia, endocrine disorders, and neurologic deficits. Screening studies have revealed that celiac disease is most common in asymptomatic adults in the United States. Although considerable scientific progress has been made in understanding celiac disease and in preventing or curing its manifestations, a strict gluten-free diet is the only treatment for celiac disease to date. Early diagnosis and treatment, together with regular follow-up visits with a dietitian, are necessary to ensure nutritional adequacy and to prevent malnutrition while adhering to the gluten-free diet for life. This review focuses in detail on the gluten-free diet and the importance of intense expert dietary counseling for all patients with celiac disease.

Key words: Celiac disease, Diet, Gluten-free, prolamin.

Esmaeil Ataye Salehi *et al* /International Journal of PharmTech Research, 2016,9(4),pp 349-356.
