Early feeding practices seem to have no impact on the risk of developing celiac disease during childhood

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Primary Prevention of Celiac Disease: Environmental Factors with a Focus on Early Nutrition by Anna Chmielewska et al.

Key insights
Previously, the main evidence for the influence of early nutrition practices on the risk of celiac disease came from observational studies. Recently, the results from two large randomized controlled studies (the PREVENTCD and CELIPREV trials) were published. The aim of these studies was to evaluate the effect of the timing of gluten introduction on the risk of celiac disease in at-risk children. Contrary to previous thought, the timing of gluten introduction in an infant’s diet does not influence the risk of developing celiac disease.

Current knowledge
Celiac disease is an autoimmune enteropathic disorder in which dietary gluten and related prolamins play a major pathogenic role. Genetically susceptible individuals harbor a background in which variants of human leukocyte antigens (HLA) haplotypes DQ2/DQ8 are the main predisposing factors. The symptoms of celiac disease range from asymptomatic to gastrointestinal and non-gastrointestinal presentations of varying severity. Celiac disease affects around 1% of the general population in Europe, greatly affecting patients’ quality of life and incurring a significant cost burden on society. There has always been a great deal of inconsistency in the literature regarding the impact of the timing of gluten introduction on the risk of celiac disease.

Practical implications
The only available treatment for affected individuals is a strict, gluten-free diet. Until recently, special emphasis was placed on early nutrition, namely, the timing and mode of gluten introduction as a preventive measure. However, results from the PREVENTCD and CELIPREV trials do not support the current recommendations. The age of the child at gluten introduction (between 4 and 12 months) has no effect on the prevention of celiac disease. Gluten should only be introduced in line with general recommendations for starting infant complementary foods. In children with no genetic predisposition for celiac disease, the timing and mode of gluten introduction does not influence disease risk.

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