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## FOR YOUR INFORMATION... A SERVICE FOR LIFE-SPAN PROVIDERS

*Dear Life-Span Members:*

*Celiac disease remains in the news...*

*My editorial comments are bracketed and italicized.*

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Abstract: Horvath K and Mehta DI. Division of Pediatric Gastroenterology and Nutrition, University of Maryland School of Medicine.

Celiac disease--a worldwide problem  
Indian J Pediatr 2000 Oct; volume 67(10): pages 757-63.

Celiac disease and dermatitis herpetiformis are caused by the alcohol soluble fractions [*gliadins*] of wheat, barley, and rye [*oats has gluten, but the gluten of oats contains no gliadin*].

Reliable serological tests are available for both mass and risk group screening [*IgG and IgA anti-gliadin immunoassays + IgA anti-endomysial and IgA anti-transglutaminase immunoassays*] and recent epidemiological studies on celiac disease suggest that the prevalence varies between 1:100-300 in different continents [*more precisely 1:19 Saharawi Moroccan children and adolescents, 1:75 North Sardinians, 1:85 Finns, 1:111 asymptomatic, apparently healthy American adults & 1:167 healthy American children, and 1:186 Italians*].

The clinical manifestations of the disease has changed in the West and the classical symptomatic cases [*wasting/weight loss, failure to thrive, bloating, abdominal cramping, steatorrhea, iron deficiency anemia, chronic diarrhea, e.g.*] represent only approximately 1/7th of all diagnosed cases. Symptoms such as anemia [*iron and/or folic acid deficiency anemias*], short stature [*more common cause than growth hormone deficiency-induced short stature*], dental enamel defects [*bleached white permanent teeth, often with horizontal &/or vertical grooves, aphthous ulcers, small intestinal T-cell lymphoma, esophageal carcinoma, insulin-dependent diabetes, autoimmune thyroid disease, pregnancies with poor outcomes (miscarriage, premature birth, low birth weight, e.g.), major psychological depression, chronic neurological diseases of unknown cause (primarily peripheral neuropathies and ataxias), Down's Syndrome,*] or osteoporosis can be the only manifestations of the atypical disease.

There is an increased prevalence of celiac disease in patients with autoimmune diseases [*primarily IDDM and autoimmune thyroid diseases, both hypo- (Hashimoto's thyroiditis) and hyperthyroidism*]. Recent data suggest that there is a correlation between the prevalence of autoimmune diseases and the number of years that an individual consumes gluten-containing foods. Genetic studies revealed a high prevalence of certain HLA antigens in celiac patients; however, there is likelihood that non-HLA genes are also important in the pathomechanism.

An interesting new development is the recognition of tissue transglutaminase (tTG), an enzyme that probably forms an autoantigen with gluten. It is generally accepted that antibodies to tTG are identical to the previously described antiendomysium antibodies. Whether or not tTG is responsible for the initiation of an immunoreaction against prolamines or just exacerbates the immune response is a subject of further investigations.