

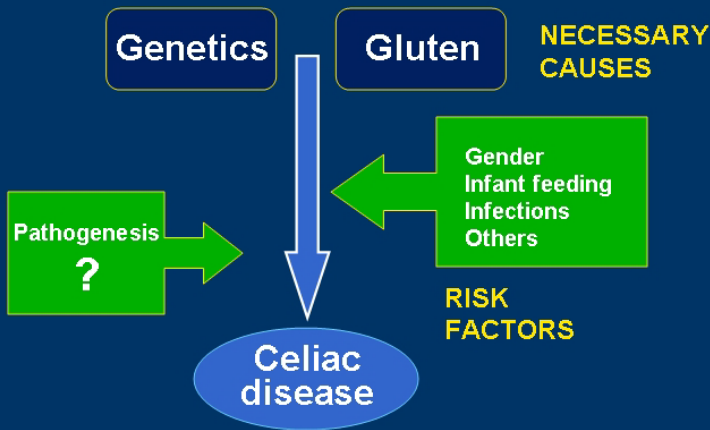
Managing the Patient with Celiac Disease

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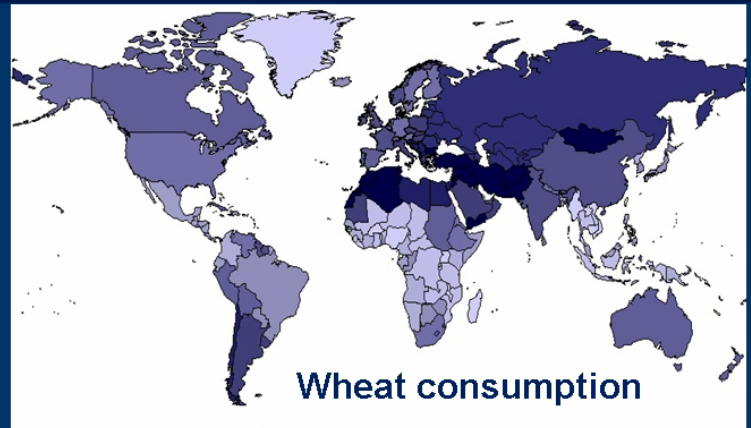
Celiac Disease

- The most common chronic intestinal disease in the world
- The most common inherited autoimmune illness in Americans

CD Pathogenesis



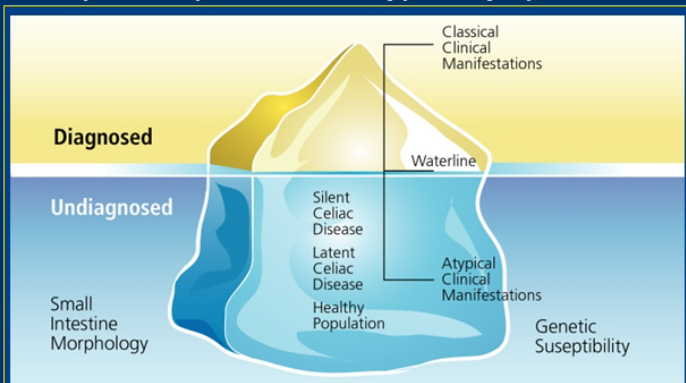
Risk Factors: The Grains



Adapted from Fasano A, Catassi C. Gastroenterology. 2001;120:636-51.

The Celiac Iceberg

“Atypical is typical”: 50% of newly diagnosed celiac patients present with atypical symptoms.



ORIGINAL INVESTIGATION

Prevalence of Celiac Disease in At-Risk and Not-At-Risk Groups in the United States

A Large Multicenter Study

Alessio Fasano, MD; Irene Berri, MD; Tania Gerarduzzi, MD; Tarzisto Not, MD; Richard B. Colletti, MD; Sandro Drago, MS; Yoram Elitsur, MD; Peter H. R. Green, MD; Stefano Guandalini, MD; Ivor D. Hill, MD; Michelle Pietzak, MD; Alessandro Ventura, MD; Mary Thorpe, MS; Debbie Kryszak, BS; Fabiola Fornaroli, MD; Steven S. Wasserman, PhD; Joseph A. Murray, MD; Karoly Horvath, MD, PhD

Background: Celiac disease (CD) is an immune-mediated enteropathic condition triggered in genetically susceptible individuals by the ingestion of gluten. Although common in Europe, CD is thought to be rare in the United States, where there are no large epidemiologic studies of its prevalence. The aim of this study was to determine the prevalence of CD in at-risk and not-at-risk groups in the United States.

Methods: Serum anti-glutadin antibodies and anti-endomysial antibodies (EMA) were measured. In EMA-positive subjects, human tissue transglutaminase IgA antibodies and CD-associated human leukocyte antigen DQ2/DQ8 haplotypes were determined. Intestinal biopsy was recommended and performed whenever possible for all EMA-positive subjects. A total of 13 145 subjects were screened: 4508 first-degree and 1275 second-degree relatives of patients with biopsy-proven CD, 3236 symptomatic patients (with either gastrointestinal symptoms or a disorder associated with CD), and 4126 not-at-risk individuals.

Results: In at-risk groups, the prevalence of CD was 1:22 in first-degree relatives, 1:39 in second-degree relatives, and 1:56 in symptomatic patients. The overall prevalence of CD in not-at-risk groups was 1:133. All the EMA-positive subjects who underwent intestinal biopsy had lesions consistent with CD.

Conclusions: Our results suggest that CD occurs frequently not only in patients with gastrointestinal symptoms, but also in first- and second-degree relatives and patients with numerous common disorders even in the absence of gastrointestinal symptoms. The prevalence of CD in symptomatic patients and not-at-risk subjects was similar to that reported in Europe. Celiac disease appears to be a more common but neglected disorder than has generally been recognized in the United States.

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THE LANCET

Coeliac disease

Peter H R Green, Bana Jabri

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Presenting Symptoms

- Fatigue
- Loose stools or constipation
- Irritable bowel
- Gas or bloating
- Abdominal pain
- GERD
- Lactose intolerance

Extraintestinal Symptoms

- Short stature
- Delayed puberty
- Dermatitis Herpetiformis
- Anemia
- Osteoporosis
- Arthritis
- Infertility
- Recurrent miscarriage
- Epilepsy

Dermatitis Herpetiformis



- erythematous macules
- urticarial papules
- tense vesicles
- severe pruritus
- symmetric distribution
- 90% no GI symptoms
- 75% villous atrophy
- gluten sensitive

Garioch et al, 1994; Fry et al 1995; Reumala et al 1997

Neurologic Symptoms

- Ataxia
- Peripheral neuropathy
- Psychiatric symptoms
 - depression
 - schizophrenia
- Epilepsy and intracranial calcifications



Catassi and Holmes, 2000

Celiac Disease and Bones

- Osteomalacia
- Raised alkaline phosphatase, raised PTH
- Osteoporosis
- Bone pain
- Pseudofractures
- Proximal muscle weakness
- Rarely tetany
- Rx: Calcium and Vit D



Celiac Disease and Teeth

- Dental enamel hypoplasia
- Dental enamel calcification
- Causes can be nutritional deficiencies such as Vitamins A, C, D, calcium, and phosphorus



Associated Illnesses

- Fibromyalgia
- Chronic Fatigue Syndrome
- Anemia
- Vitiligo
- Hypothyroidism
- Down Syndrome
- Type I Diabetes
- Peripheral neuropathy
- Cerebellar ataxia

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