

Tips for Managing Celiac Disease

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Gastroenterology

New Brunswick Internal Medicine Update
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Disclosures

- None relevant to this presentation



Objectives

- Briefly review the epidemiology and clinical presentation of Celiac disease
- Diagnostic approach
- Discuss general management
- Review complications of Celiac disease
- Celiac disease vs non-Celiac gluten sensitivity (NCGS)



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Case 1

- 24yo female diagnosed 3 yrs ago with IBS.
 - Has frequent abdominal gas and bloating.
 - Variable bowel habit with 3-4 days of loose stool each week. Weight stable.
 - CBC normal
 - Anti-tTG=75
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- What is the next step in management?
 - What are the most common complications?

Case 2

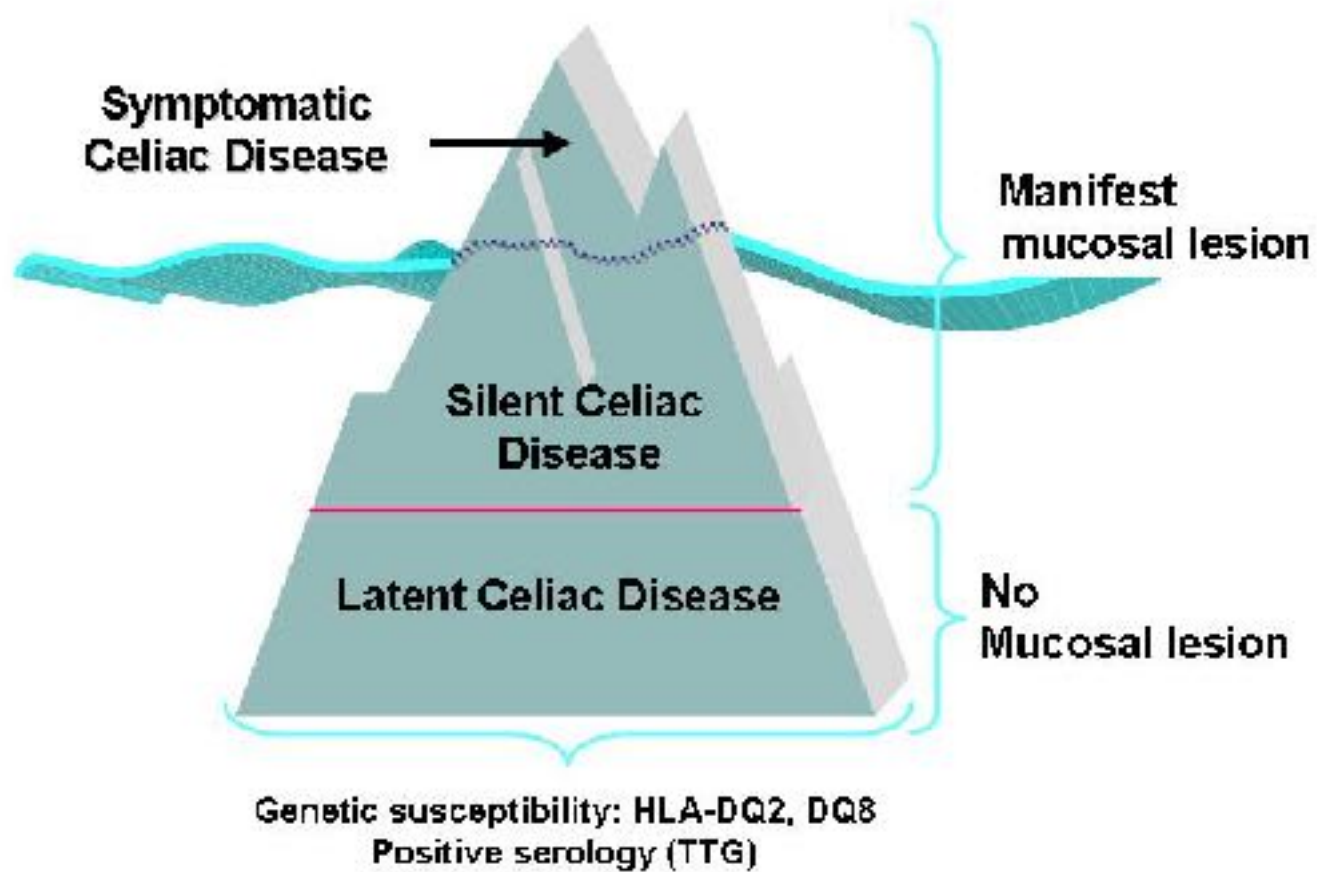
- 54yo female with 24 year h/o Celiac disease
- Says she is compliant with GFD
- Presents with 7 month h/o diarrhea
 - 6-7 watery BMs daily
 - Weight stable
- What is the differential diagnosis?
- What are the next steps in investigation?

Clinical Presentation



- GI symptoms
 - Diarrhea
 - Bloating/gas
 - Weight loss
 - Dyspepsia-type symptoms
- Non-GI manifestations

The Celiac Iceberg

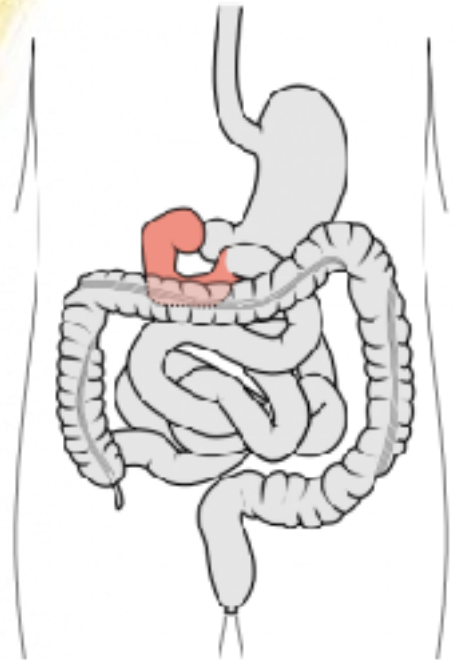


Non-GI Manifestations

- Iron deficiency
- Metabolic bone disease
- Neuropsychiatric symptoms
 - Neuropathy, ataxia, depression, anxiety
- Liver disease

Iron deficiency anemia

- 10-15% in patients with GI symptoms
- 5-10% of asymptomatic IDA
- Approx 10% of premenopausal women with IDA



Associated Conditions



- Type 1 DM
- Autoimmune thyroid disease
- Down syndrome
- Renal disease
- Interstitial lung disease
- Idiopathic pulmonary hemosiderosis
- Hyposplenism
- PBC
- Recurrent pericarditis

Screening High-Risk Populations

Population	Percent affected
General	0.7-1.0%
1 st degree relative with CD	4-12%
2 nd degree relative with CD	2-4%
Down syndrome	5-16%
Type 1 DM	5-10%
Autoimmune thyroid disease	4-5%
IgA deficiency	2-8%

Rostom et al. Gastro 2005.

Diagnosis



- Serology
- HLA typing
- Endoscopy

Serologic testing

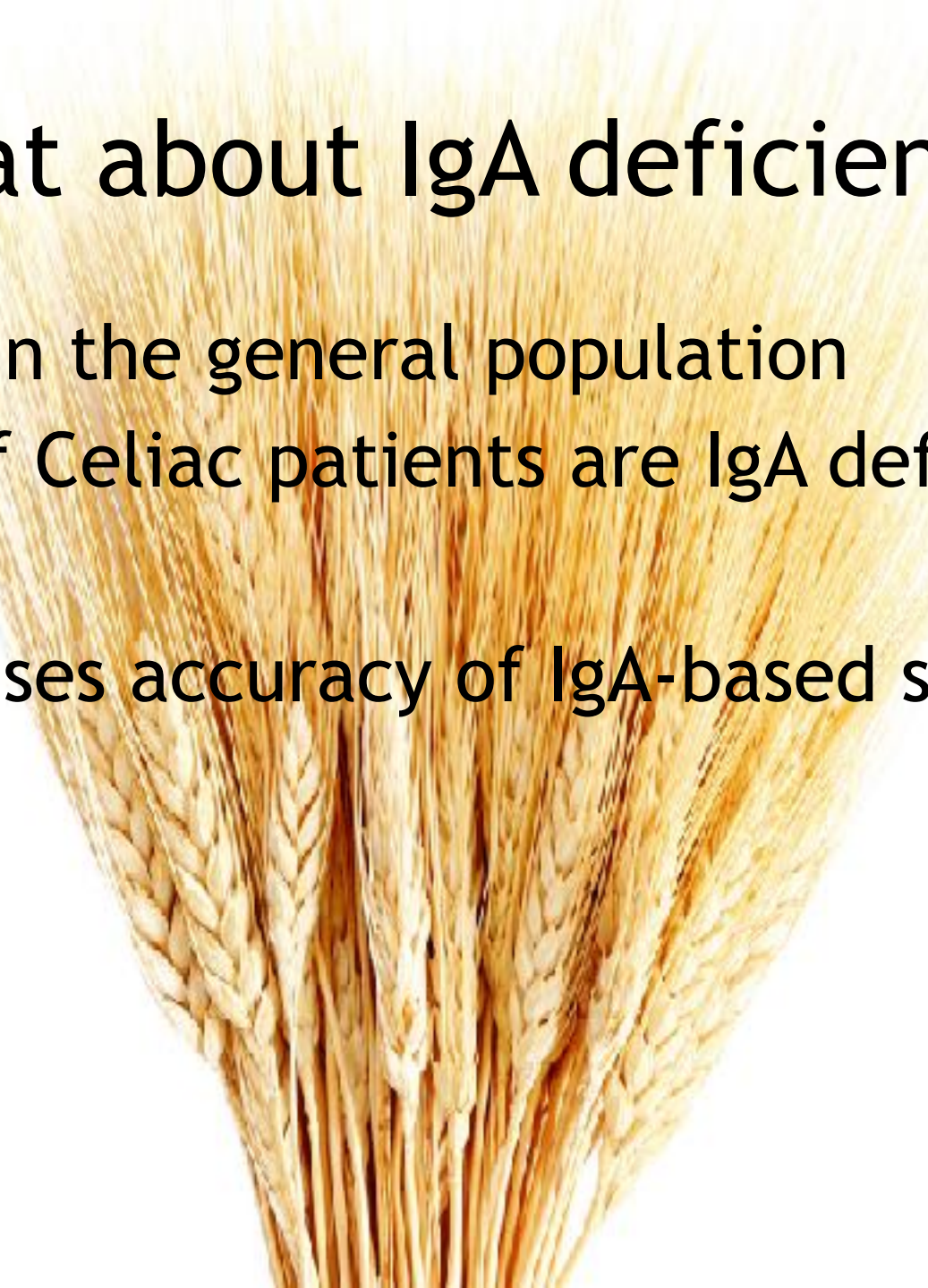


- **IgA AGA**
 - 80% sens, 80-90% spec
- **IgA EMA**
 - 97% sens, 99.6% spec
- **IgA tTG**
 - 98.1% sens, 98.0% spec
- **IgG DGP**
 - 94.6% sens, 99.1% spec

Rostom et al. Gastro 2005.
Sugai et al. Clin Gastro Hep 2006.

What about IgA deficiency?

- <0.5% in the general population
- 2-5% of Celiac patients are IgA deficient
- Decreases accuracy of IgA-based serologic tests



Diagnosis - HLA typing

- HLA DQ2
 - 90-95%
- HLA DQ8
 - 5-10%







Celiac Classification



- Classic
 - Symptoms + villous atrophy + improvement on GFD
- Atypical
 - Minimal GI symptoms
 - Typical serology and histology
- Silent
 - No or minor symptoms with +serology/histology
- Latent

Newly-diagnosed Celiac

- **Gluten-free diet**
- **Education**



- 
- **Dietician**
 - **Resources**
 - www.celiac.ca
 - www.monctonceliacchapter.org
 - Canadian Digestive Health Foundation
 - www.cdhf.ca

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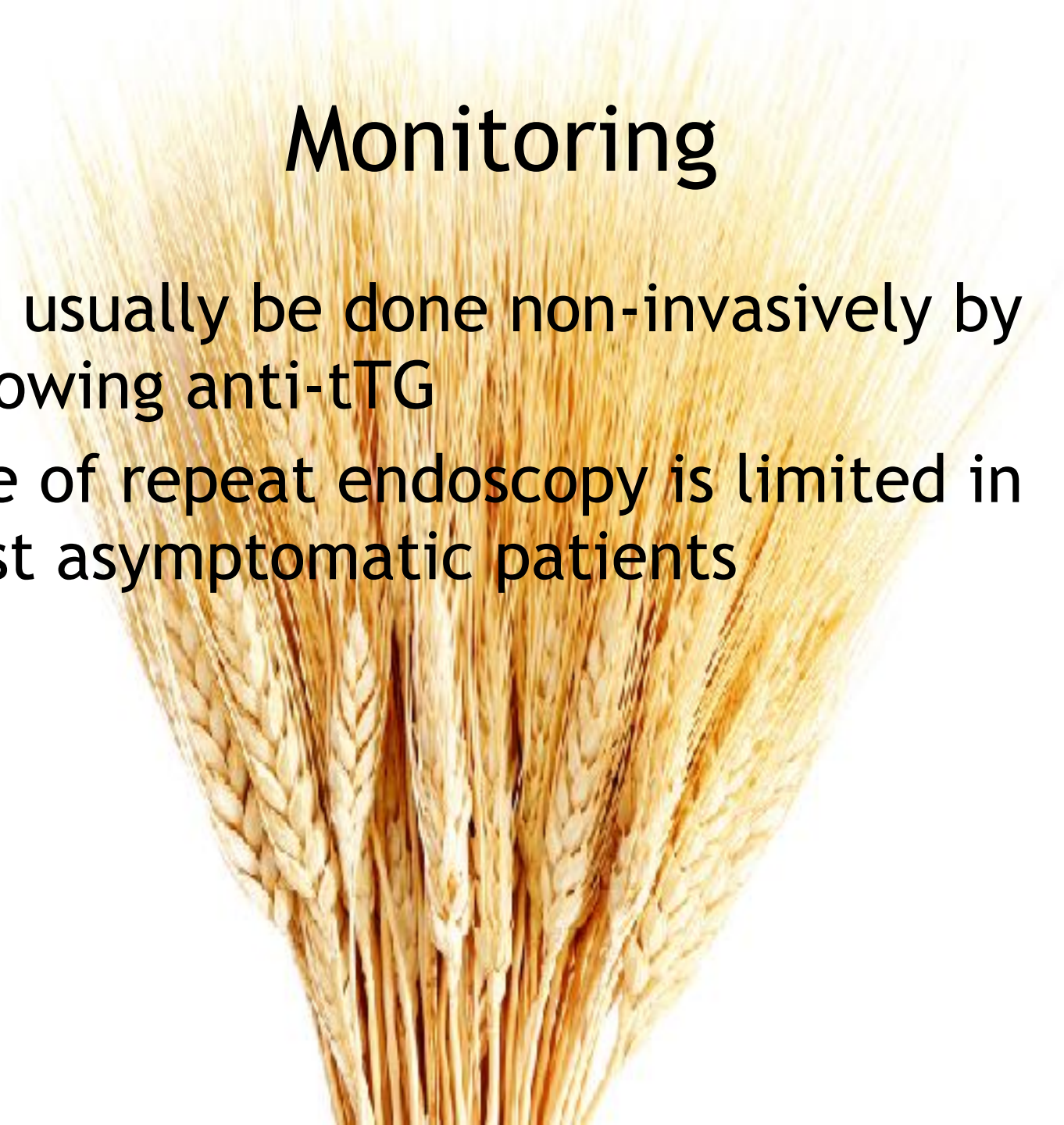
Management

- Nutritional deficiencies
 - Iron, folate, Ca, Vit D
 - Mg, Zn, Cu, Se
- Osteopenia/Osteoporosis
- Vaccination?
- Complications
- Family screening



Monitoring

- Can usually be done non-invasively by following anti-tTG
- Role of repeat endoscopy is limited in most asymptomatic patients



Non-responders to GFD

- Persistent symptoms, serology or histology after 2 years on GFD (5%)
- Potential causes:
 1. Poor compliance or inadvertent gluten
 2. Separate disease overlapping with Celiac
 3. Concurrent disease (IBS, lactose intolerance, SIBO, pancreatic insufficiency, microscopic colitis)
 4. Refractory Celiac
 5. Complications (ulcerative jejunoileitis or lymphoma)

Inadvertent Gluten Ingestion



- Sauces
- Processed meats
- Thickeners
- Soy sauce
- Herbal products and supplements
- Communion wafers
- Lip gloss

Concurrent Disorders

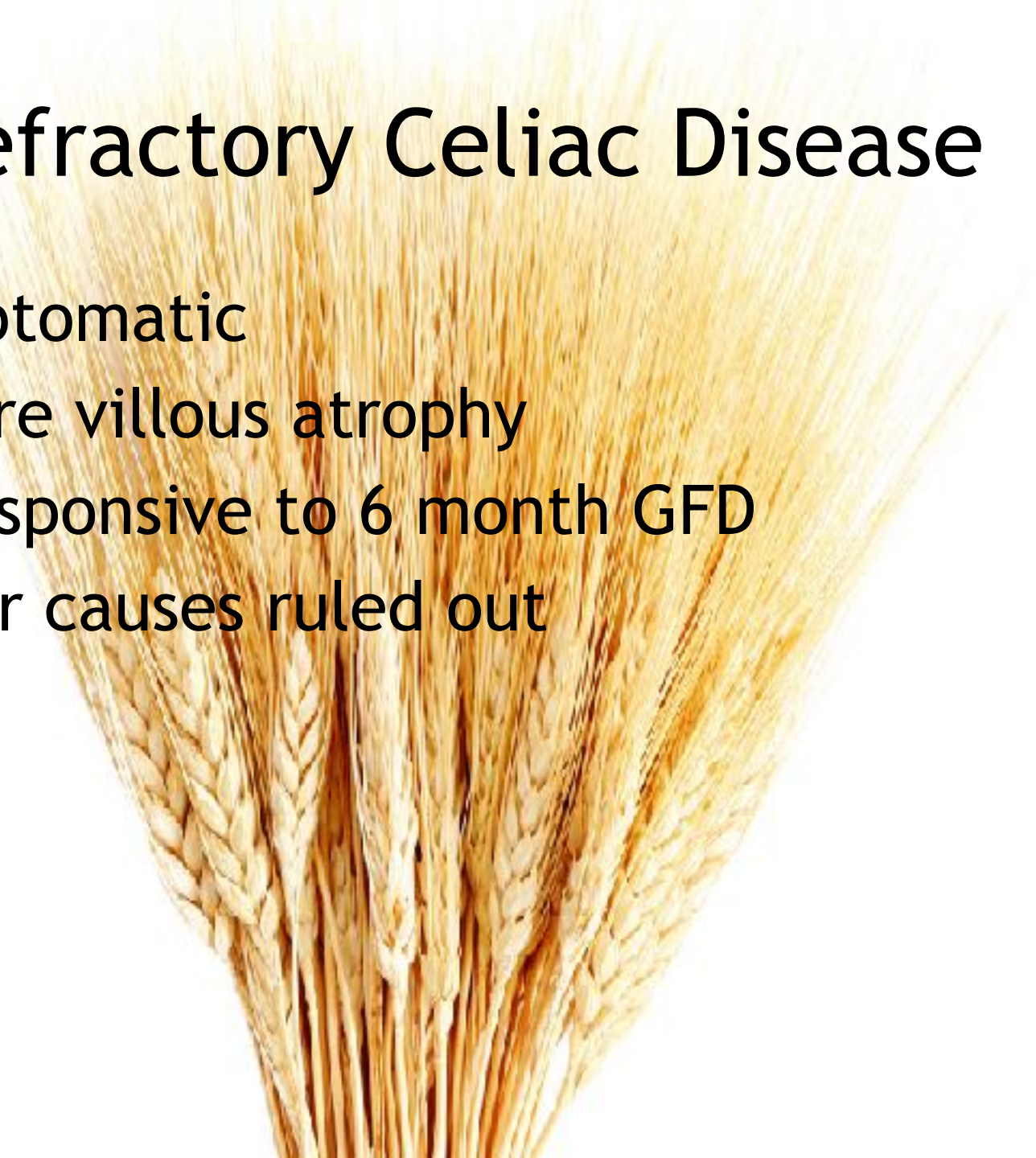


- Lactose intolerance
- IBS
- Microscopic colitis

- Small intestinal bacterial overgrowth
- Pancreatic insufficiency


Refractory Celiac Disease

1. Symptomatic
2. Severe villous atrophy
3. Unresponsive to 6 month GFD
4. Other causes ruled out



Refractory Celiac Disease

- Type 1
 - Normal IELs
 - 96% 5 year survival
 - Glucocorticoids 1st line
- Type 2
 - Aberrant IELs
 - 58% 5 year survival
 - Associated with further complications:
 - Ulcerative jejunoileitis
 - Enteropathy-associated T cell lymphoma (EATL)

- 
- Ulcerative jejunoileitis
 - EATL
 - Occurs after 20-40 years of disease
 - Diarrhea, abdo pain, weight loss
 - Ulceration almost always seen
 - Complications include bleeding, obstruction, fever, hypoalbuminemia
 - 31% and 11% 1 and 5 yr survival

Dermatitis Herpetiformes

- 1:10,000
- Up to 90% of patients with DH will have some findings on endoscopy
- Pruritic papules and vesicles most commonly on extensor surfaces



DH - Treatment

- Gluten-free diet
- Dapsone



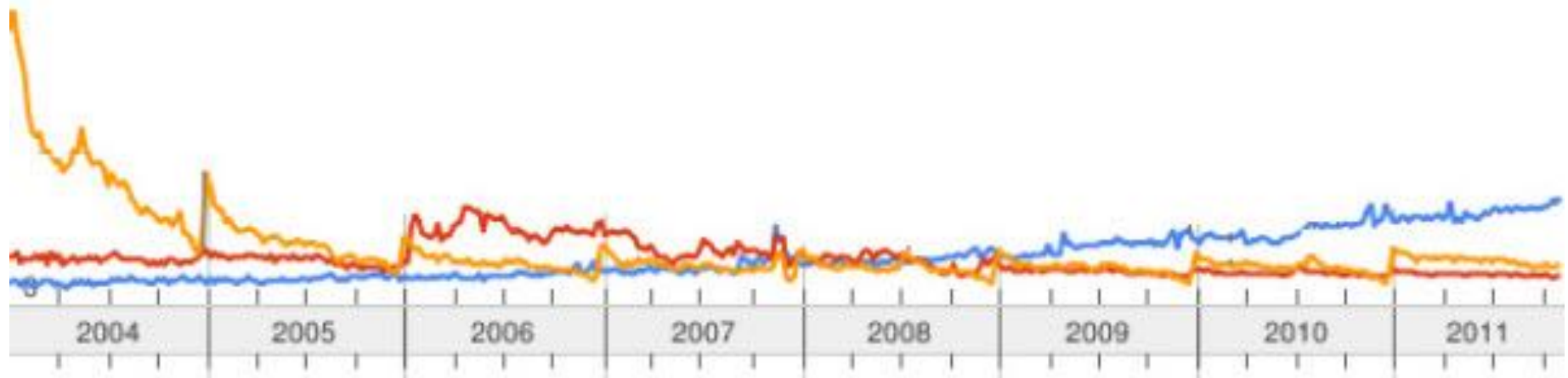
Celiac-associated Liver Disease

- Mild-moderate elevation of ALT/AST
- Studies show rates of 40-50%
- Elevations seem more likely in symptomatic patients
 - 23% vs 9% (Korpimaki et al. Am J Gastro 2011)
- Elevations tend to improve on GFD

Rubio-Tapia and Murray. Hepatology 2007.
Bardella et al. Hepatology 1995.

Is the GFD the newest fad diet?

Low Carb Diet Fat Free Diet Gluten Free Diet



LOSE THE WHEAT, LOSE THE WEIGHT,
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WHEAT BELLY

WILLIAM DAVIS, MD

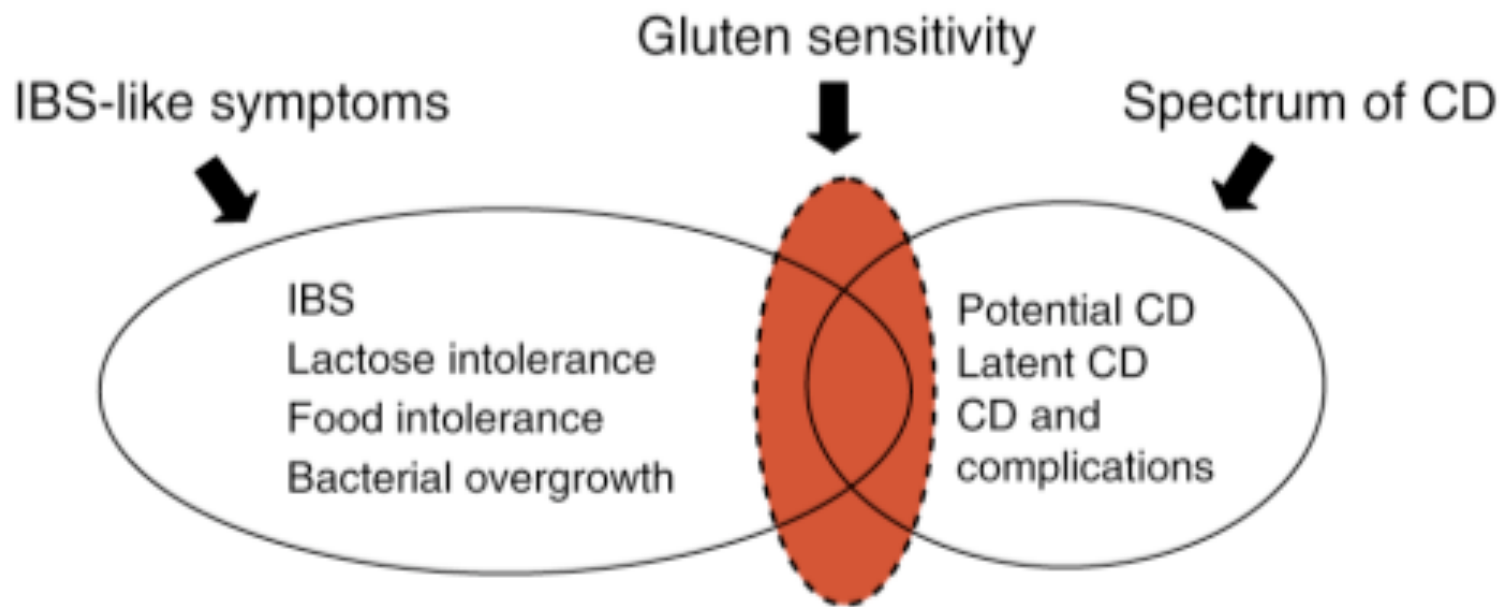


WHEAT BELLY COOKBOOK

150 Recipes to Help You Lose the Wheat,
Lose the Weight, and Find Your Path Back to Health

WILLIAM DAVIS, MD





Verdu et al. Am J Gastroenterol 2009.

Gluten Causes Gastrointestinal Symptoms in Subjects Without Celiac Disease: A Double-Blind Randomized Placebo-Controlled Trial

Jessica R. Diesiekierski, B Appl Sci¹, Evan D. Newnham, MD, FRACP¹, Peter M. Irving, MD, MRCP¹, Jacqueline S. Barrett, PhD, BSc, MND¹, Melissa Haines, MD¹, James D. Doocey, BSc, PhD², Susan J. Shepherd, B Appl Sci, PhD¹, Jane G. Muir, PhD, PGrad Dip(Dietetics)¹ and Peter R. Gibson, MD, FRACP¹

Non-Celiac Wheat Sensitivity Diagnosed by Double-Blind Placebo-Controlled Challenge: Exploring a New Clinical Entity

Antonio Carroccio, MD¹, Pasquale Mansueto, MD², Giuseppe Iacono, MD³, Maurizio Soresi, MD², Alberto D'Alcamo, MD², Francesca Cavataio, MD³, Ignazio Brusca, MD⁴, Ada M. Ficrenna, MD⁵, Giuseppe Ambrosiano, MD², Aurelio Seidita, MD², Giuseppe Pirrone, MD² and Giovanni Battista Rini, MD²

Symptoms of Wheat Sensitivity



- Myalgias
- Headache/Migraine
- Lethargy
- Fatigue
- Sleep disturbance
- Joint pain

Cases

- Case 1
 - Biopsies show intraepithelial lymphocytosis and villous atrophy
 - Anti-tTG negative after 6 months of GFD
- Case 2
 - Anti-tTG 2.4
 - Colonoscopy with biopsies showing features of lymphocytic colitis
 - Started on Entocort with quick symptom resolution

Take home messages

- Celiac Disease is common, but often does not present with “classic” features
- Most patients respond well to a strict GFD
- There are several causes of non-response to GFD and work-up starts with a dietary review
- Patients should be screened for micronutrient disorders at diagnosis

Questions?

