Nordic Laboratories

PATIENT: XXXXXXXXXXXXX
TEST NUMBER: G-NL-XXXXX
GENDER: XXXXXX
AGE: XX

COLLECTED: 00-XXX-2023
RECEIVED: 00-XXX-2023
TESTED: 00-XXX-2023

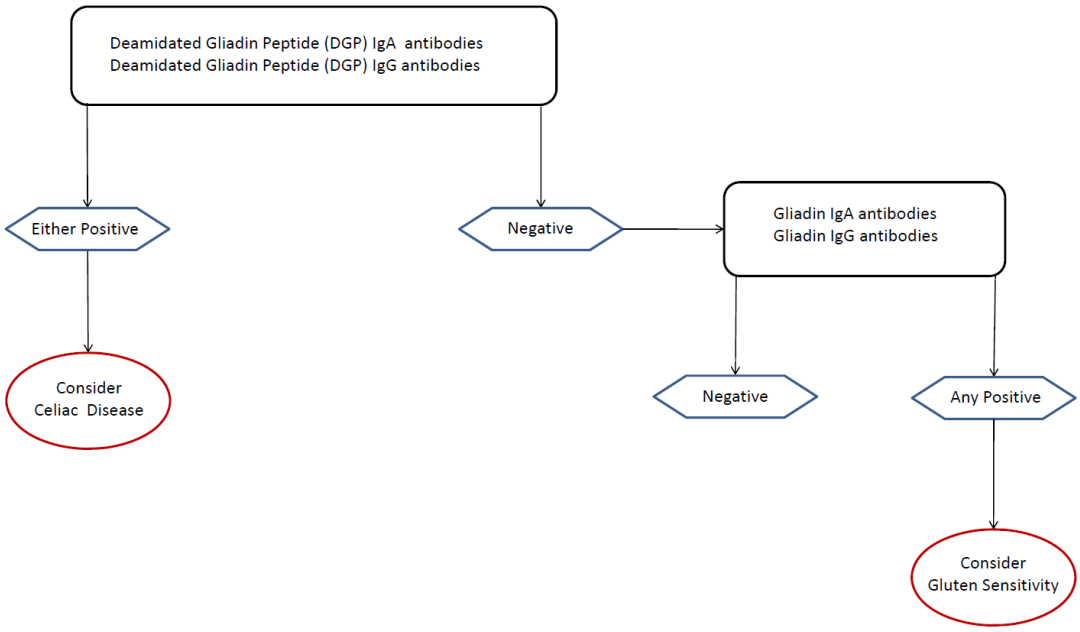
TEST REF: GNL-NL-XXXXX
PRACTITIONER:
XXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXX

TEST NAME: Sample+Report+Celiac+Blood+Spot-1

Celiac & Gluten Sensitivity; blood spot

ANTIBODIES	RESULT/UNIT	REFERENCE INTERVAL	NEG	WEAK POS	POSITIVE
Deamidated Gliadin Peptide (DGP) IgA	< 5.2 U	< 20.0			
Deamidated Gliadin Peptide (DGP) IgG	< 2.8 U	< 20.0			
Gliadin (AGA) IgA	12.4 U	< 20.0			
Gliadin (AGA) IgG	34.9 U	< 20.0			

Celiac Disease/Gluten Sensitivity Cascade



SPECIMEN DATA
Comments:
Date Collected: 09/05/2023
Date Received: 09/07/2023 <dl: less than detection limit
Date Reported: 09/20/2023
Method: Chemiluninescent, Immunoassay

Nordic Laboratories Aps
Nygade 6, 3.sal • 1164 Copenhagen K • Denmark
Tlf. +45 33 75 10 00

UK Office:
11 Old Factory Buildings • Stonegate • E. Sussex TN5 7DU • UK
Tel: +44 (0)1580 201 687

www.nordic-labs.com
info@nordic-labs.com

Introduction

Celiac disease (CD) is one of the most common causes of chronic malabsorption and may contribute to a wide variety of chronic conditions including autoimmune disorders and nutritional deficiencies. Celiac disease remains underdiagnosed, as the condition is often asymptomatic for years.

Antibody tests that help diagnose CD and Non-Celiac Gluten sensitivity (NCGS) measure the patient's immune response to gluten exposure; the tests will only be diagnostically accurate if the patient is on a gluten-inclusive diet.

Evaluation of antibodies (tissue transglutaminase and deamidated gliadin peptide) in CD is based on detection of IgA class immunoglobulins. However the incidence of selective IgA deficiency is higher in CD, therefore this test also evaluates the corresponding IgG antibodies.

Patients diagnosed with CD must remain on a gluten-free diet for life and avoid wheat, rye, barley, and other foods that contain gluten and gluten related proteins. A complete list of foods containing wheat may be found at www.doctorsdata.com under "Hidden Sources of Ingredients".

The Doctor's Data Comprehensive Stool Analysis would include all of these tests plus additional biomarkers of digestive health and gastrointestinal function.

References:

American Association for Clinical Chemistry (2011) Celiac Disease Tests http://labtestsonline.org/ accessed 15 May 2014.

Rubio-Tapia, Alberto; Hill, Ivor D; Kelly, Ciarán P; Calderwood, Audrey H; Murray, Joseph A (2013) ACG clinical guidelines: diagnosis and management of celiac disease. The American journal of Gastroenterology vol. 108 (5) p. 656-76; quiz 677.

Sapone, Anna; Lammers, Karen; Casolaro, Vincenzo; Cammarota, Marcella; Giuliano, Maria et al. (2011) Divergence of gut permeability and mucosal immune gene expression in two gluten-associated conditions: celiac disease and gluten sensitivity. BMC Medicine vol. 9 (1) p. 23.

Mothes, Thomas. (2007) Deamidated gliadin peptides as targets for Celiac disease-specific antibodies. Advances in Clinical Chemistry vol.44 p. 44.

Deamidated Gliadin Peptide (DGP) Antibody Negative

The anti-deamidated gliadin peptide (DGP) IgA or IgG results are within normal limits. Celiac disease is associated with a variety of autoantibodies, including tissue transglutaminases (tTG), and deamidated gliadin antibodies; these are considered the most sensitive and specific serologic tests for CD. Antibody responses to deamidated gliadin peptide show high specificity and parallel tTG responses in CD.

A negative DGP IgA antibody result does not exclude an indication of CD in patients who have selective IgA deficiency, or have been following a gluten-free diet because antibody levels decrease over time. Responses to a gluten-free diet (GFD) vary however, research indicates that weakly positive individuals may become serology-negative within weeks of strict adherence to GFD. Within 6-12 months of adhering to a GFD, 80% of patients will test negative by serology. After five years, more than 90% of patients adhering to the GFD will have negative serologies.

Nordic Laboratories Aps
Nygade 6, 3.sal • 1164 Copenhagen K • Denmark
Tlf. +45 33 75 10 00

UK Office:
11 Old Factory Buildings • Stonegate • E. Sussex TN5 7DU • UK
Tel: +44 (0)1580 201 687

www.nordic-labs.com
info@nordic-labs.com

This test result alone is not diagnostic for absence of Celiac disease. The results should be considered in conjunction with the patient's symptoms, immune status, diet, genetic predisposition and medical history.

References:

American Association for Clinical Chemistry (2011) Celiac Disease Tests http://labtestsonline.org/ accessed 15 May 2014.

Ankelo, M; Kleimola, V; Simell, S; Simell, O; Knip, M et al. (2007) Comparative Usefulness of Deamidated Gliadin Antibodies in the Diagnosis of Celiac Disease Antibody responses to deamidated gliadin peptide show high specificity and parallel antibodies to tissue transglutaminase in developing celiac disease. Clinical and experimental immunology vol. 150 (2) p. 285-93.

Parizade, Miriam; Bujanover, Yoram; Weiss, Batya; Nachmias, Vered; Shainberg, Bracha (2009) Performance of serology assays for diagnosing celiac disease in a clinical setting. Clinical and vaccine immunology : CVI vol. 16 (11) p. 1576-82.

Rubio-Tapia, Alberto; Hill, Ivor D; Kelly, Ciarán P; Calderwood, Audrey H; Murray, Joseph A (2013) ACG clinical guidelines: diagnosis and management of celiac disease. The American journal of gastroenterology vol. 108 (5) p. 656-76; quiz 677.

Vermeersch, Pieter; Geboes, Karel; Mariën, Godelieve; Hoffman, Ilse; Hiele, Martin et al. (2010) Diagnostic performance of IgG anti-deamidated gliadin peptide antibody assays is comparable to IgA anti-tTG in celiac disease. Clinica chimica acta; international journal of clinical chemistry vol. 411 (13-14) p. 931-5.

Wang, Ning; Truedsson, Lennart; Elvin, Kerstin; Andersson, Bengt A; Rönnelid, Johan et al. (2014) Serological assessment for celiac disease in IgA deficient adults. PloS one vol. 9 (4) p. e93180.

Gliadin Antibody High

The serum level of anti-gliadin antibodies (AGA) IgA, IgG or both is higher than expected. An elevation in either IgA or IgG may indicate gluten sensitivity.

Gluten sensitivity is defined as a gluten reaction that is independent of the IgE reactions of wheat allergy and autoantibody reactions of Celiac disease. In at least 50% of cases, elevated IgA and IgG AGA may be the only serological biomarker in cases of dermatitis herpetiformis or gluten ataxia. Studies have shown that patients with autism, Multiple Sclerosis or schizophrenia are more likely to have elevated IgA AGA levels and that those more likely to have adverse responses to dietary gluten.

Whole purified gliadin that contains the alpha, omega, beta and gamm isorforms is used in the assay.

A negative AGA IgA result does not exclude a possibility of gluten-sensitivity in patients who have selective IgA deficiency, or have been following a gluten-free diet because antibody levels decrease over time.

References:

Nordic Laboratories Aps
Nygade 6, 3.sal • 1164 Copenhagen K • Denmark
Tlf. +45 33 75 10 00

UK Office:
11 Old Factory Buildings • Stonegate • E. Sussex TN5 7DU • UK
Tel: +44 (0)1580 201 687

www.nordic-labs.com
info@nordic-labs.com

American Association for Clinical Chemistry (2011) Celiac Disease Tests http://labtestsonline.org/ accessed 15 May 2014.

Nelsen, David A. Jr., M.D., M.S., (2002) Gluten-Sensitive Enteropathy (Celiac Disease): More Common Than You Think. Am Fam Physician. 2002 Dec 15;66(12):2259-2266.

Pietzak, Michelle (2012) Celiac Disease, Wheat Allergy, and Gluten Sensitivity: When Gluten Free Is Not a Fad. JPEN J Parenter Enteral Nutr vol. 36 (1_suppl): p. 68S-75S.

Sapone, Anna; Lammers, Karen; Casolaro, Vincenzo; Cammarota, Marcella; Giuliano, Maria et al. (2011) Divergence of gut permeability and mucosal immune gene expression in two gluten-associated conditions: celiac disease and gluten sensitivity. BMC Medicine vol. 9 (1) p. 23.

Rubio-Tapia, Alberto; Hill, Ivor D; Kelly, Ciarán P; Calderwood, Audrey H; Murray, Joseph A (2013) ACG clinical guidelines: diagnosis and management of celiac disease. The American journal of gastroenterology vol. 108 (5) p. 656-76; quiz 677.

Nordic Laboratories Aps
Nygade 6, 3.sal • 1164 Copenhagen K • Denmark
Tlf. +45 33 75 10 00

UK Office:
11 Old Factory Buildings • Stonegate • E. Sussex TN5 7DU • UK
Tel: +44 (0)1580 201 687

www.nordic-labs.com
info@nordic-labs.com