



 **ACG INSTITUTE RESEARCH GRANTS AND AWARDS 2022** 

EIGHT different award types; INCREASED Junior Faculty FUNDING;
NEW Health Equity Research Award; Med Resident and Student Awards

www.gi.org/research-awards

Grant System Opens: September 7, 2021

Deadline: December 3, 2021

Read the [Grant Flyer](#), [FAQs](#), or visit the webpage for the full RFAs.

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NEW! ACG Institute
Health Equity Research Award

APPLY: gi.org/research-awards DEADLINE: December 3, 2021

Read the flyer at gi.org/research-awards to learn more!

 **ACG INSTITUTE RESEARCH GRANTS AND AWARDS 2022** 

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ACG INSTITUTE RESEARCH GRANTS AND AWARDS 2022



EIGHT different award types; NEW Health Equity Research Award; Bridge Funding; GIQuIC Research funding; Med Resident and Student Awards


www.gi.org/research-awards

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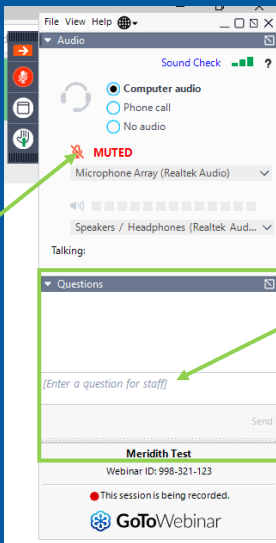
Read the [Grant Flyer](#), [FAQs](#), or visit the webpage for the RFAs.

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Virtual Grand Rounds
universe.gi.org

Participating in the Webinar

All attendees will be muted and will remain in Listen Only Mode.




Type your questions here so that the moderator can see them. Not all questions will be answered but we will get to as many as possible.

Meridith Test

Webinar ID: 998-321-123

● This session is being recorded.

 GoToWebinar

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How to Receive CME and MOC Points

LIVE VIRTUAL GRAND ROUNDS WEBINAR
ACG will send a link to a CME & MOC evaluation to all attendees on the live webinar.

ABIM Board Certified physicians need to complete their MOC activities by December 31, 2021 in order for the MOC points to count toward any MOC requirements that are due by the end of the year. No MOC credit may be awarded after March 1, 2022 for this activity.

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MOC QUESTION

If you plan to claim MOC Points for this activity, you will be asked to: Please list specific changes you will make in your practice as a result of the information you received from this activity.

**Include specific strategies or changes that you plan to implement.
THESE ANSWERS WILL BE REVIEWED.**

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ACG Virtual Grand Rounds

Join us for upcoming Virtual Grand Rounds!



Week 33, 2021
Hepatocellular Carcinoma: Epidemiology, Diagnosis and Treatment
 Patricia Jones, MD, MSCR
 August 26, 2021 at Noon Eastern



Week 34, 2021
ACG Clinical Guideline: Treatment of Helicobacter pylori Infection
 William D. Chey, MD, FACG
 September 2, 2021 at Noon Eastern

Visit gi.org/ACGVGR to Register

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Disclosures:



Speaker:
Sarah K. McGill, MD, MSc
Research Funding: Finch Pharmaceuticals, Olympus.



Moderator:
Animesh Jain, MD
Dr. Jain, faculty for this educational event, has no relevant financial relationship(s) with ineligible companies to disclose.

*All of the relevant financial relationships listed for these individuals have been mitigated

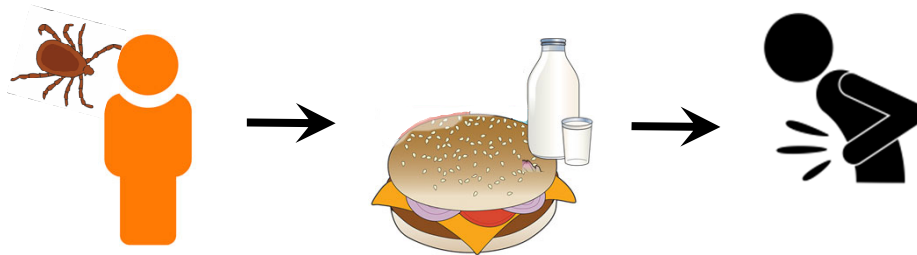
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UNC
HEALTH CARE



Alpha-Gal Mammalian Meat Allergy: What You Need to Know



Sarah McGill, MD MSc
Associate Professor of Medicine
University of North Carolina at Chapel Hill

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“It’s been three years of desiring bacon.
I like meat, but I don’t like throwing up.”

- RR, GI- Alpha gal patient

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Learning Objectives:

You should be able to:

- Describe symptoms of alpha-gal allergy and how sensitization happens
- Understand what activities and geography put patients at risk for developing alpha-gal meat allergy
- Manage alpha-gal allergy

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A Case: Ms. K



- variable stools
- severe episodes of diarrhea, abdominal pain, distension and urgency to defecate resolve on mammalian meat-free diet

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Alpha-gal allergy == delayed food allergy to a sugar present on the blood cells and tissues of all non-primate mammals (galactose-alpha-1,3-galactose)



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Alpha-gal cases worldwide by self-report



Zeemaps, 2021.

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Alpha-gal Symptoms



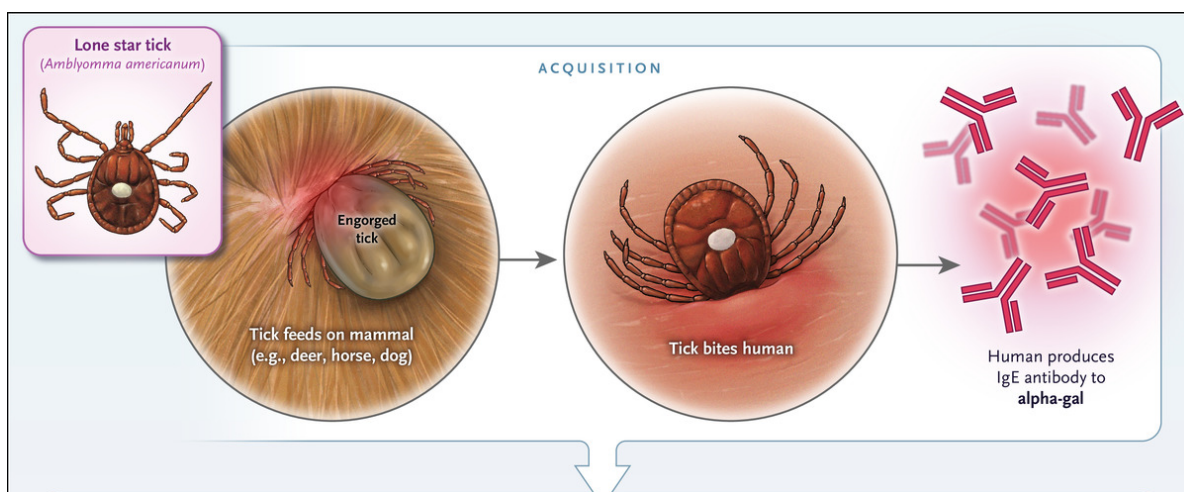
Abdominal pain,
diarrhea, nausea



Hives, urticaria,
angioedema

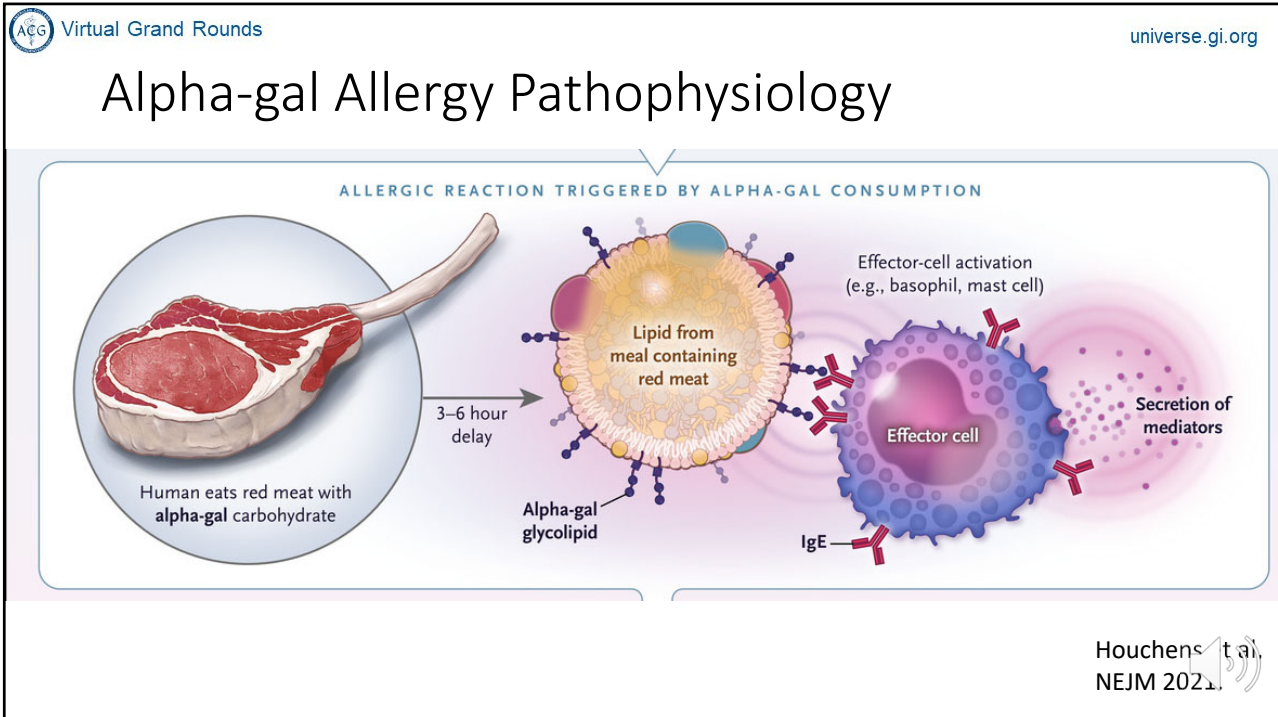
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Alpha-gal Allergy Pathophysiology

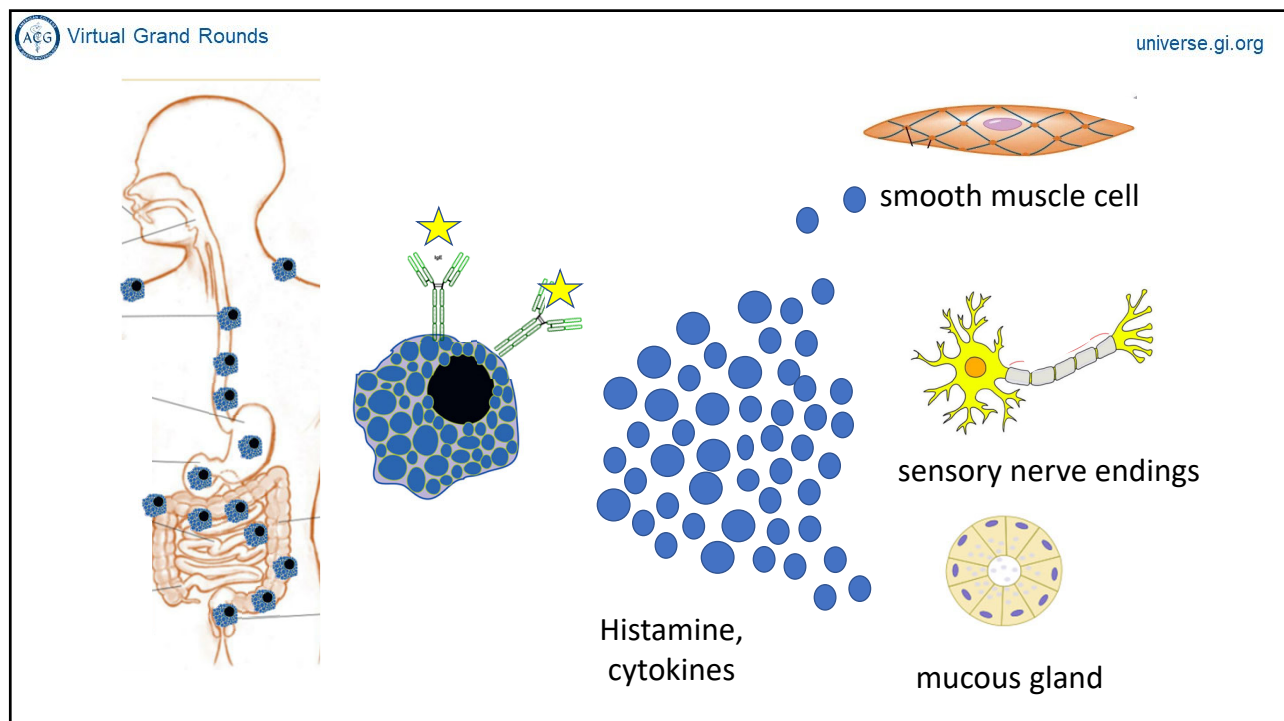


Houchens et al, NEJM 2021.

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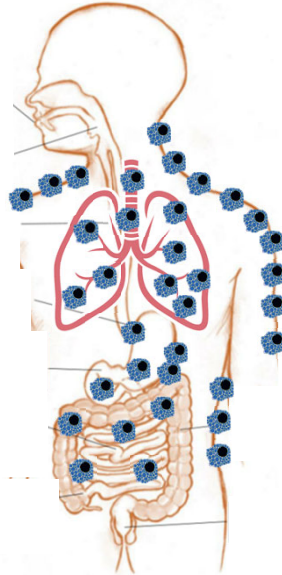


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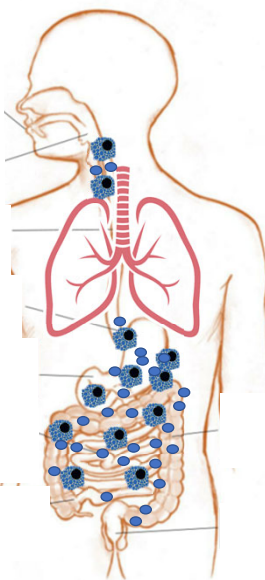
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Mast Cells are dense in skin, gut & respiratory tract



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GI Alpha-Gal: a localized hypersensitivity reaction



= Symptoms
are limited to
the site of
allergen entry

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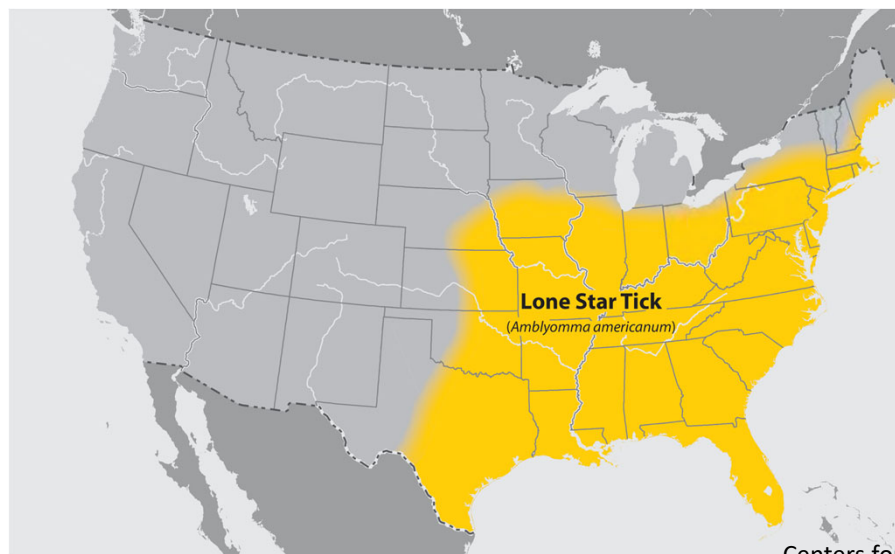
Diagnosis: Alpha Gal-IgE + Clinical Context



- Elevated serum alpha gal IgE
- Symptom improvement on alpha gal avoidant diet

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Geography: the Lone Star Tick Range



Centers for Disease Control

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Activities: A Walk in the Woods



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Testing Triggers



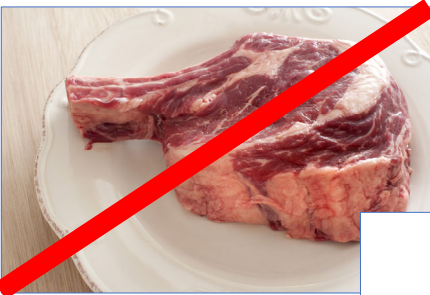
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Why Alpha-gal is the weirdest food allergy you've (never) heard of

- Almost all food allergies develop under age 2
- Almost all food allergies happen at every exposure
- IgE hypersensitivity reactions are IMMEDIATE (right?)

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GI Alpha-Gal: Management



antihistamine

Epinephrine autoinjector



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Alpha-gal Clinical Pearls from Dr. Commins

- Response to eating meat is (highly) variable
- Fattier cuts of meat / alcohol with meat is more problematic
- There exists “seronegative alpha gal” who react on challenge
- Reversely, patients with elevated titers can be asymptomatic with meat ingestion



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Gastroenterology 2021;160:2178–2180

Isolated Gastrointestinal Alpha-gal Meat Allergy Is a Cause for Gastrointestinal Distress Without Anaphylaxis

Michael P. Croglio,¹ Scott P. Commins,² and Sarah K. McGill³


¹Department of Internal Medicine, ²Division of Allergy and Immunology, and ³Division of Gastroenterology and Hepatology, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina



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Our GI alpha gal cohort




- 16 patients with isolated GI complaints and high titers of alpha gal IgE
- 75% women, 25% men
- 100% follow-up data
- None considered meat a problem
- Median follow up 14 months (range 2 mos-3 years)
- All patients counseled on a mammalian meat-free diet; half had allergy consult


Croglio, Commings, McGill. *Gastro* 2021

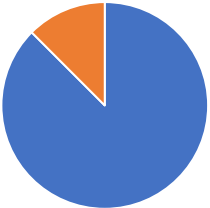
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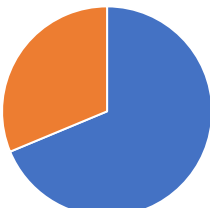


GI Symptoms (n=16)






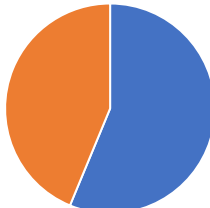
Abdominal Pain
n=14



Diarrhea
n=11



Nausea
n=12




IBS-Diarrhea
n=7

Croglio, Commings, McGill. *Gastro* 2021

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75% recalled a tick bite




Croglia, Commins, McGill. *Gastro* 2021


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Alpha-Gal IgE Titer

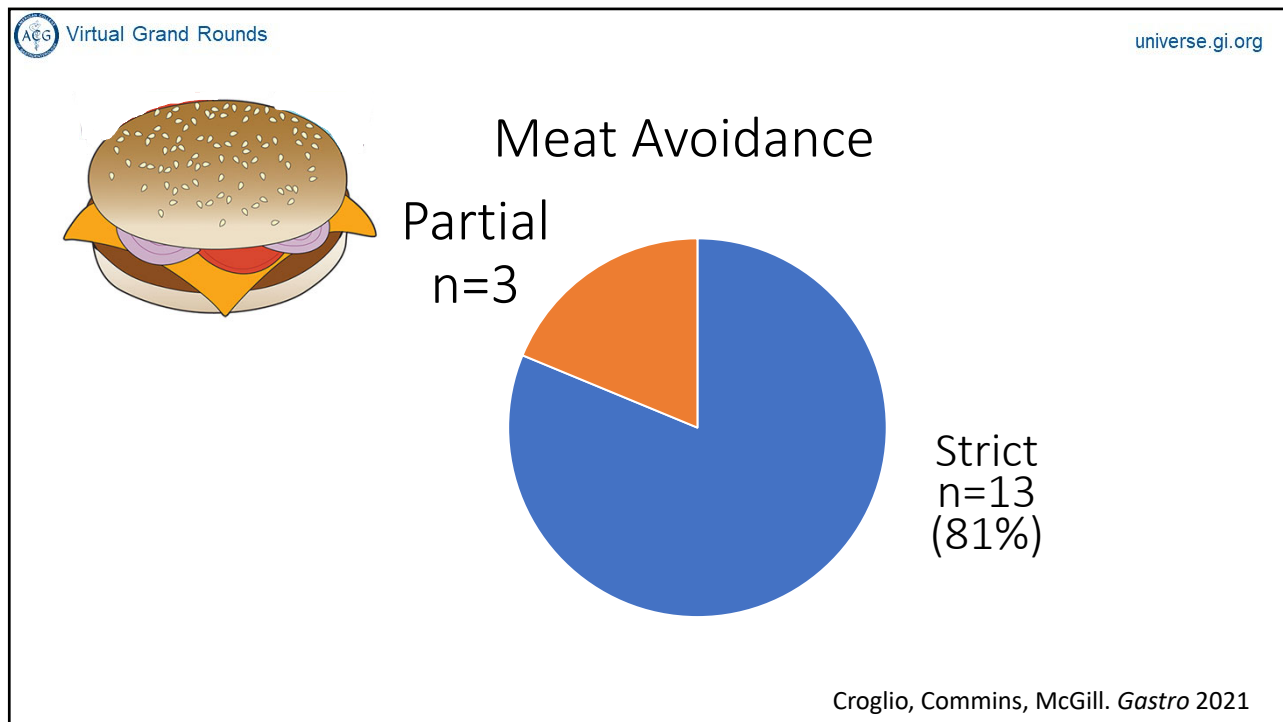




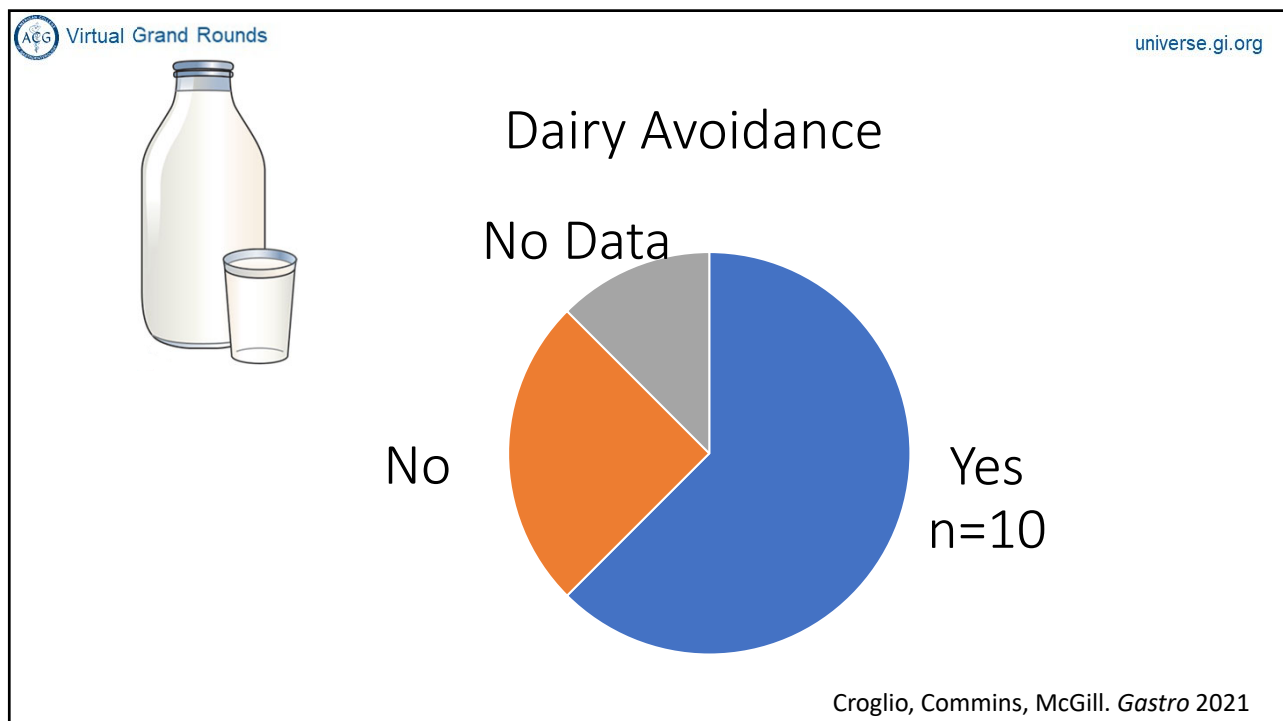
Median= 0.61
range 0.26-100 IU/L

Croglia, Commins, McGill. *Gastro* 2021

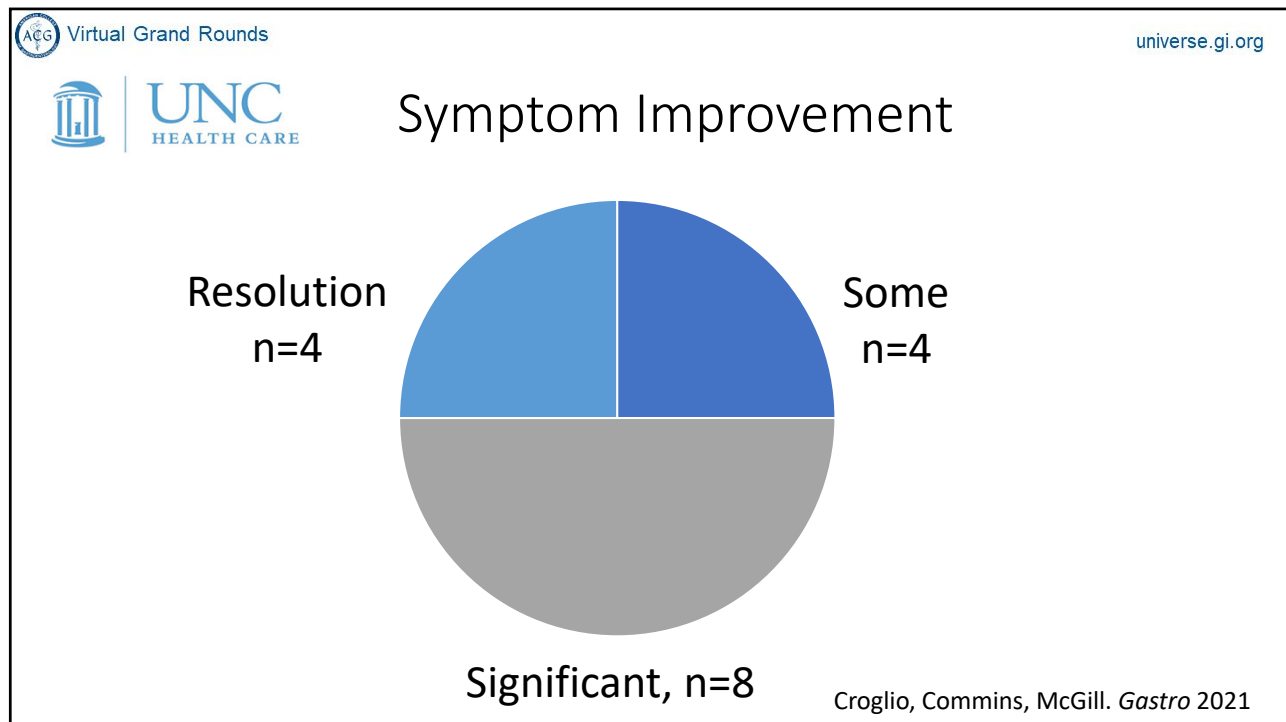
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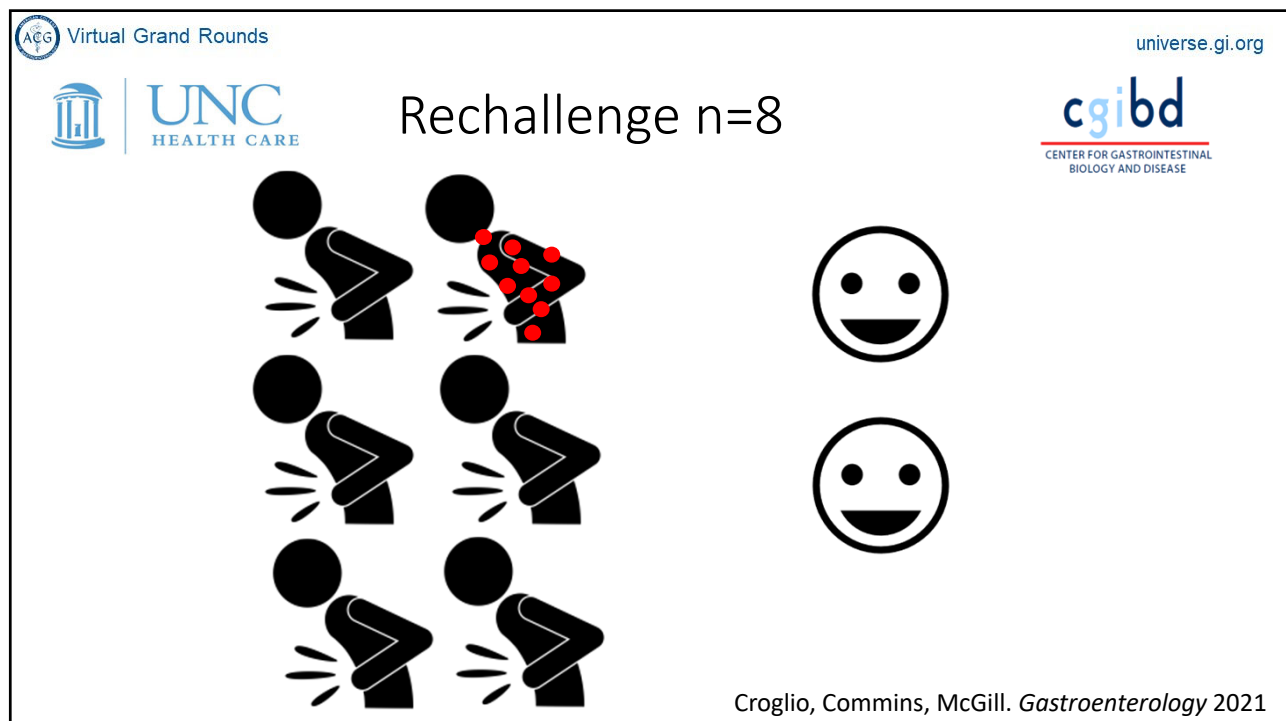
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Alpha-Gal Allergy as a Cause of Intestinal Symptoms in a Gastroenterology Community Practice

Nathan E. Richards, MD, and Robert D. Richards, Jr, MD



Lynchburg, VA

1112 Patients with unexplained abdominal pain, diarrhea, nausea and vomiting tested for alpha gal
 359 alpha gal positive patients (32%)
 122 Patients with follow-up data
 24 patients with other diagnoses

Richards and Richards. *Southern Medical Journal* 2021

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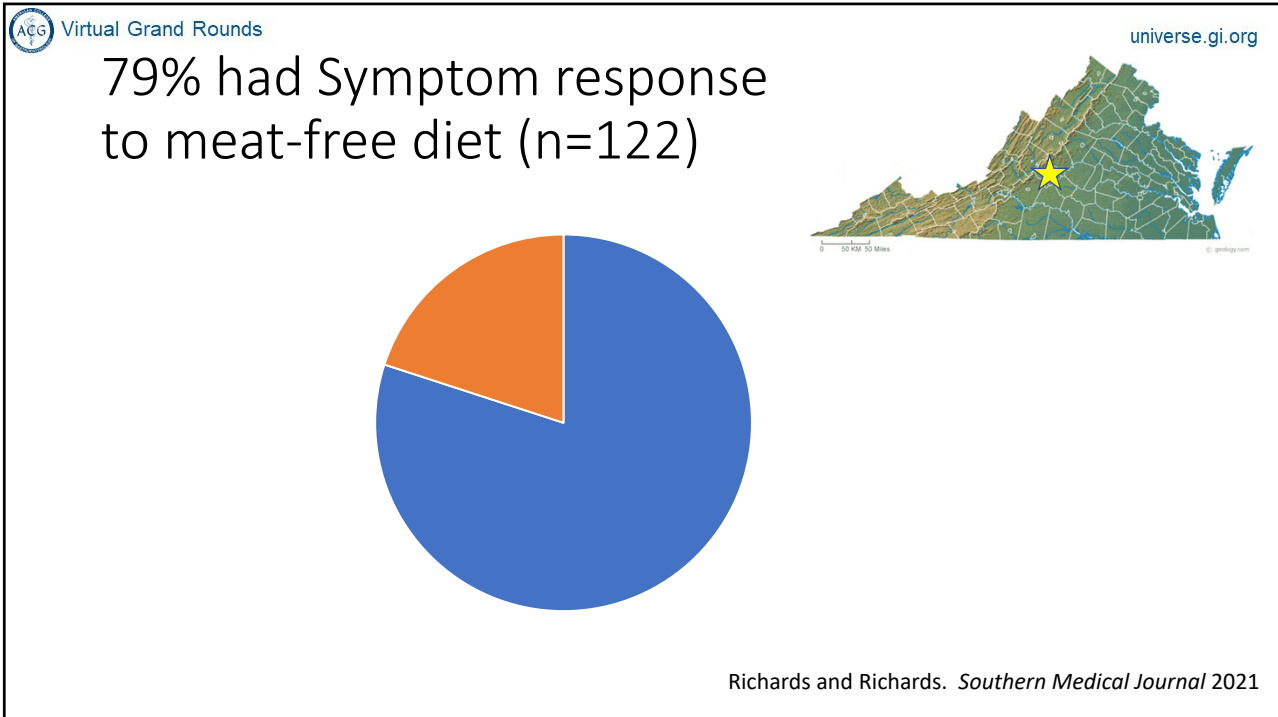
Little Difference in GI Symptoms among Alpha gal + and - patients

Table 3. Symptoms in relation to alpha-gal IgE status

	IgE(+) (% of total 359)	IgE(-) (% of total 753)	χ^2 OR	P
Abdominal pain	270 (75.2)	576 (76.5)	0.93	0.64
Diarrhea	240 (66.8)	495 (65.7)	1.05	0.71
Nausea/vomiting	141 (39.3)	319 (42.3)	0.88	0.33
IBS-diarrhea diagnosis	64 (17.8)	135 (17.9)	0.99	0.97
IBS-constipation diagnosis	14 (3.9)	44 (5.8)	0.65	0.17
Meat exacerbation	55 (15.3)	103 (13.7)	1.14	0.41
Postprandial exacerbation	254 (70.8)	449 (59.6)	1.64	<0.001
Recall tick bite	10 (2.8)	8 (1.1)	2.67	0.03
Hives	14 (3.9)	7 (0.9)	4.32	<0.001
Bronchospasm	8 (2.2)	0 (0)	—	0.001 ^a

Richards and Richards. *Southern Medical Journal* 2021

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The initial Sausage Challenge tests, 2009



24 patients, half alpha gal + and half –

10 of 12 Alpha Gal + had reactions
3-7 hours after challenge

2 Patients with GI symptoms alone

- Abdominal cramping and heartburn @ 5 hrs
- “grumbling stomach” @ 4 hrs

Commins et al. *Journal of Clinical Allergy and Immunology* 2009

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- 7.5 hours after eating pork sausage

Commins et al. *Journal of Clinical Allergy and Immunology* 2009

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All Patients Had GI Symptoms and Half had Isolated-GI Sxs on large challenge test (n=114)



Adult + Pediatric Patients diagnosed with
 ↑ alpha gal IgE and challenged to beef
 sausage, 81 reacted

ALL patients had GI symptoms (abdominal
 cramping, nausea, vomiting); half had skin
 symptoms; 5% anaphylaxis

45% had abdominal symptoms
 alone



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Mabelane et al. *Pediatric Allergy and Immunology* 2009

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Why is alpha gal a problem now?



Abundant Tick
 Hosts

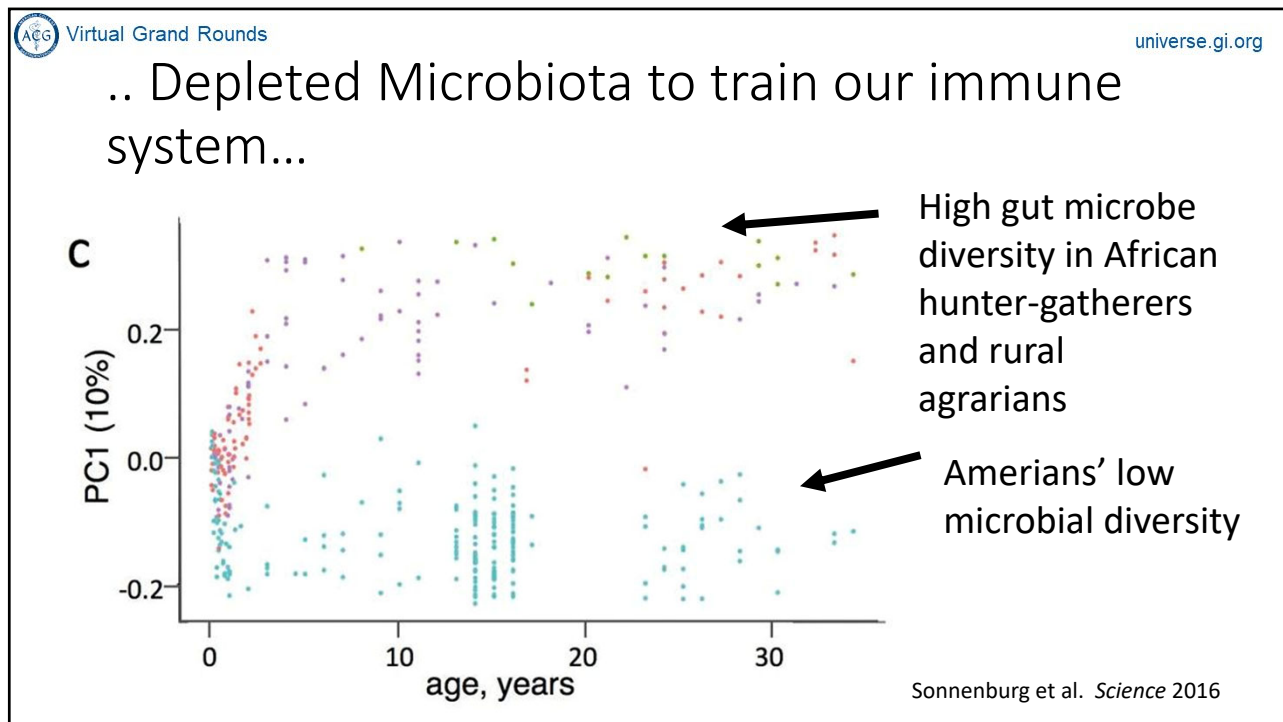
Urban Sprawl




Fewer Hunters

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North Carolina and Missouri: anaphylaxis to a mouse chimeric monoclonal antibody

Overview - Tuesday, January 1, 2008

A Mysterious Allergy Afflicts The South

by Jason Smith

When Bert O'Neil began giving Erbitux to colon-cancer patients in clinical trials, he had no reason to be wary. After all, the drug had already been tested and was FDA-approved for use in colon cancer.



click to read photo caption. Photo by Jason Smith; ©2008 Endeavors.

Jason Smith. *Endeavors* 2008

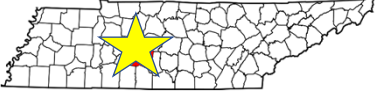
But at Carolina's Lineberger Comprehensive Cancer

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VOLUME 25 • NUMBER 24 • AUGUST 20 2007

JOURNAL OF CLINICAL ONCOLOGY ORIGINAL REPORT



High Incidence of Cetuximab-Related Infusion Reactions in Tennessee and North Carolina and the Association With Atopic History

Bert H. O'Neil, Robert Allen, David R. Spiegel, Thomas E. Stinchcombe, Dominic T. Moore, Jordan D. Berlin, and Richard M. Goldberg



**High incidence of hypersensitivity reactions to cetuximab infusions in mid-Missouri:
Association with prior history of atopy**

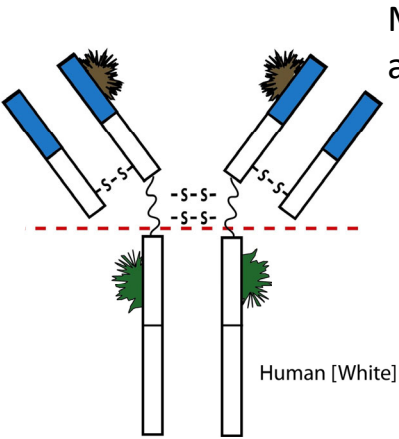
R. Oweru, A. Gill, S. Haddadin, R. Khozouz and M. C. Perry
University of Missouri Columbia, Columbia, MO

Abstract, 2008 ASCO Annual Meeting Proceedings, Vol 26, No 15S, 2008:20747

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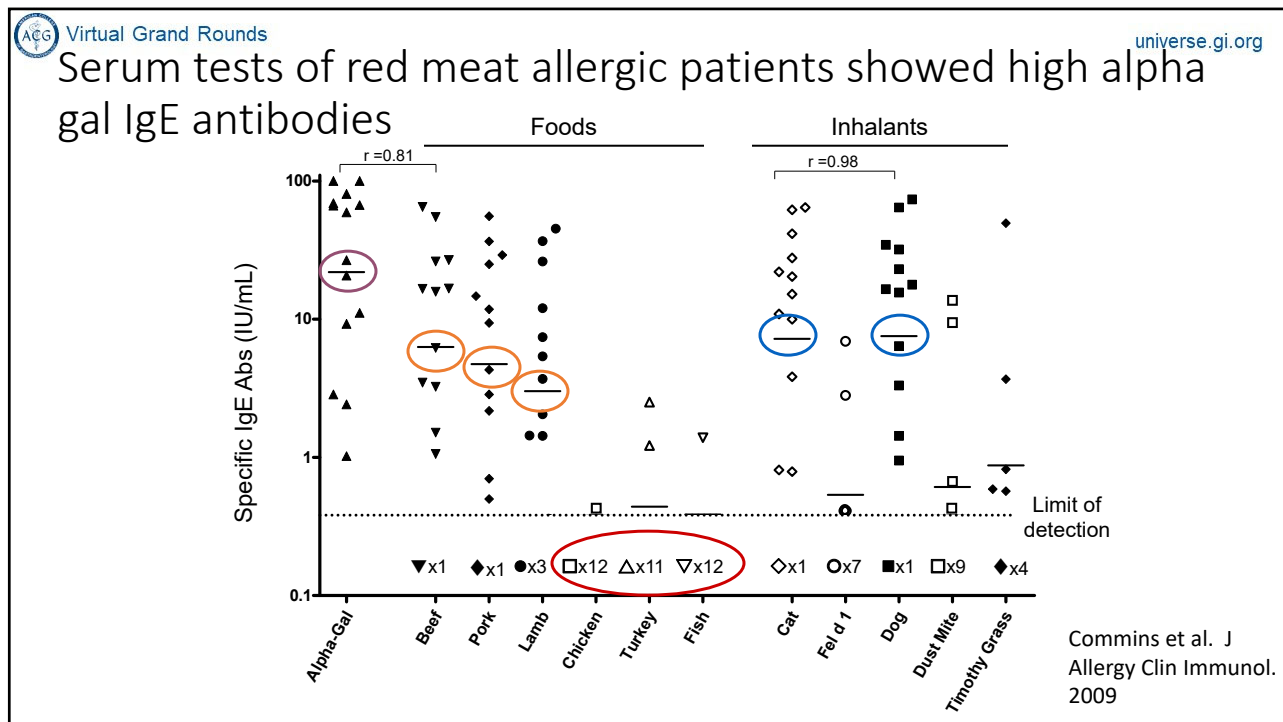
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Cetuximab had a murine (mouse) component heavily glycosylated with alpha-gal

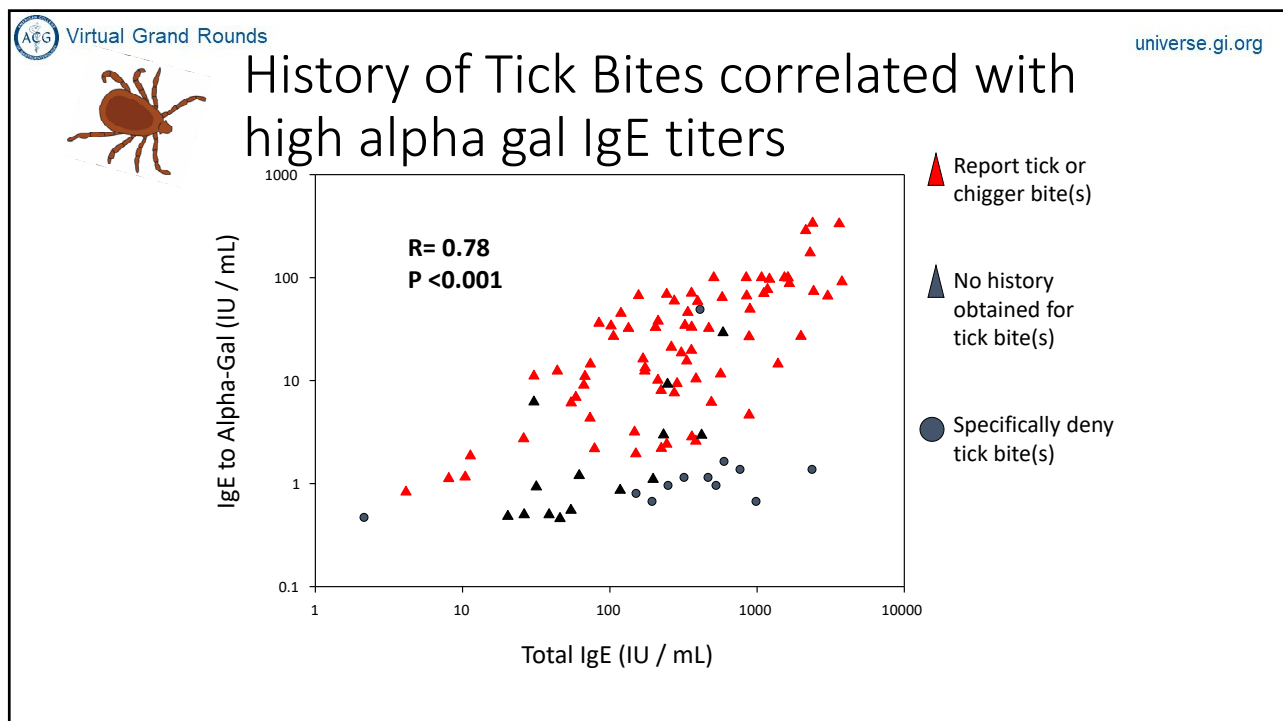


Chung CH et al. N Engl J Med 2008

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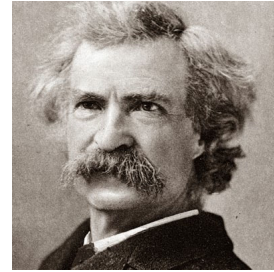
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“I was gratified to be able to answer promptly, and I did. I said I didn’t know.”

- Mark Twain



- What proportion of patients only have GI symptoms?
- When should we test for alpha gal?
- Which patients will improve on an alpha gal- avoidant diet?
- When should patients improve, if they are going to?

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Take-Home Points

- People can develop IgE antibodies to the alpha-gal sugar after a tick bite, and then can have allergic reactions
- These allergic reactions happen after eating mammalian meat and are delayed by 1-7 hours, and some are local to the GI tract
- Current testing is serum IgE alpha gal antibodies, and current management is mammalian meat- and products- avoidant diet

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Questions?



Speaker:
Sarah K. McGill, MD, MSc



Moderator:
Animesh Jain, MD

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CONNECT AND COLLABORATE IN GI



ACG & CCF IBD Circle



ACG Hepatology Circle



ACG Functional GI
Health and Nutrition Circle



ACG GI Circle
Connect and collaborate within GI



ACG Women in GI Circle

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LOGIN OR SIGN-UP NOW AT: acg-gi-circle.within3.com



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