

Supplementary Data

eTable 1
Number of Case and Control Patients, by Medical History and Dietary History

Medical History and Dietary History	Case patients, n (%)	Control patients, n (%)	OR ^c	LCL	UCL
Medical history:					
Have you ever been told by a doctor, nurse, or other health professional that you have the following?					
Diabetes, type 1	2 (2)	0	—	—	—
Stroke	0	3 (2)	—	—	—
Celiac disease	1 (1)	0	—	—	—
Have you ever required a heart valve transplant from a cow or pig?	0	1 (1)	—	—	—
Are you currently taking any medication or treatment that affects your body's ability to fight infection or suppresses your immune system ^a ?	3 (4)	6 (3)	1.26	0.31	4.41
Dietary history:					
Are there foods that you avoid eating because of the way they make you feel?	29 (35)	50 (26)	1.56	0.9	2.72
Do you take probiotics (eg, Lactobacillus) regularly ^b ?	16 (20)	24 (13)	1.72	0.86	3.41
Do you take any additional supplements?	42 (51)	97 (51)	1.03	0.61	1.74

Abbreviations: LCL, lower 95% confidence limit; OR, odds ratio; UCL, upper 95% confidence limit.

^aChemotherapy, biologics, long-term steroids.^b>3 times per week.^cORs suppressed if less than or equal to 5 total patients.**eTable 2**
Alpha-Gal Case Patient Reactions, by Organ System

Reactions	Case patients, n (%)
Mucocutaneous	75 (92)
Hives	59 (72)
Itching/redness of palms/soles of feet	56 (68)
Throat swelling	38 (46)
Rash	38 (46)
Lip swelling	36 (44)
Itching, watering, or red eyes	32 (39)
Hoarse voice	29 (35)
Tongue swelling	29 (35)
Gastrointestinal	75 (92)
Abdominal pain/cramping	61 (74)
Diarrhea	57 (70)
Heartburn/indigestion	51 (62)
Nausea/vomiting	40 (49)
Difficulty swallowing	36 (44)
Cardiovascular	67 (82)
Palpitations (racing heart/extra beats)	47 (57)
Weakness/dizziness	46 (56)
Low blood pressure	31 (38)
Fainting/passing out	18 (22)
Respiratory	46 (56)
Difficulty breathing	38 (46)
Wheezing	27 (33)
Neurologic	33 (40)
Headache	33 (40)

eTable 3
Alpha-Gal Case Patient Reactions, Exacerbating Factors

Exacerbating Factors	Yes, n	No or not sure, n	Not applicable, n	Percentage reacting of exposed (%)
Have you noticed whether drinking alcohol in the 2 hours before or after eating meat makes the reaction worse?	17	41	23	29
Have you noticed whether exercising in the 2 hours before or after eating meat makes the reaction worse?	24	51	7	32

eTable 4
Alpha-Gal Case Patient Reaction Triggers

Have you had symptoms of alpha-gal allergy when you eat the following?				
Reaction Triggers	Yes, n	No, n	Never eat, n	Percentage reacting of exposed (%)
Beef products (beef steaks, roasts, whole cuts of beef, hamburgers, and ground beef)	76	2	4	97
Pork products (whole pig, chops, tenderloin, roasts, shoulder, and ground pork)	57	9	16	86
Lamb	10	8	64	56
Goat	2	5	75	29
Processed meat products (sausage, bacon, kielbasa, bratwurst, hot dog, corn dog, pepperoni, jerky, deli meats/cold cuts, spam, and pate)	51	8	23	86
Wild game (bison, venison, etc.)	9	12	61	43
Organ meat (tripe, scrapple, and sweetbread)	7	0	75	100
Dairy (cheese and milk)	48	31	3	61
Marshmallows, Jell-O/gelatin, and gummies	20	29	32	40
Gel caps	19	42	21	31

eTable 5
Alpha-Gal Case Patient Vaccine Administration and Reactions

In the past 5 y, have you been vaccinated for:		If yes, did you have an allergic reaction ^a after getting this vaccine?
Doses administered		Allergic reactions
MMR	4	0
Rabies	1	0
Shingles (Zostavax)	15	1
Chicken pox (Varicella)	0	0
Yellow fever	1	0
Total	21	1

Abbreviations: MMR, measles/mumps/rubella.

^aHives, lips, tongue or throat swelling, low blood pressure, anaphylaxis.