Alpha-Gal Syndrome (Red Meat Allergy) Affects SE Kansas

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As we continue to engage in outdoor activities as the weather cools and hunting season begins, it's important to protect yourself from tick bites. The Lone Star tick has been linked to causing the Alpha-Gal allergy in individuals who eat red meat. Symptoms include rash, hives, difficulty breathing, drop in blood pressure, dizziness, fainting, nausea, and severe stomach pain. These symptoms can occur in 3-8 hours after eating red meat. Seek medical attention if this occurs.

The Lone Star tick is a vector that can spread disease. The Alpha-Gal molecule is carried in the saliva of Lone Star ticks. People bitten by this tick can become sensitive and produce the immunoglobulin E (IgE) antibody. Unlike typical food allergies, which are a reaction to protein, this is a reaction to the carbohydrate galactose-α-1,3-galactose. This carbohydrate is found in most mammals, such as those found in red meat. It can also be in products made from mammals. It is not found in poultry or fish.

Here are some interesting facts about Alpha-Gal Syndrome, allergic responses to dietary red meat and any red meat-derived products. Only 1 to 8 % people bitten by ticks develop AGS. By definition, all people with AGS have an allergic reaction to red meat, but twice as many people react to organ meat, especially pork kidneys. 10-33% of people with AGS react to dairy products. 10% of people with AGS react to gelatin in foods. 1-2% of people with AGS react to carrageenan in foods. Less than 1% of people with AGS react to trace amount of alpha-gal from cross-contamination.

As to the number of Kansans affected by Alpha-Gal Syndrome, there are no accurate reporting systems in place, so to get a general idea, Kansas State University asked 144 Extension professionals how many had heard of AGS or knew people affected by it, and the majority of agents who had heard of AGS or that knew those affected by it – were in southeast Kansas. This should not come as a surprise to those of us living in southeast Kansas, as many of us could most likely name at least five people with AGS. A few agents in northwest Kansas had not even heard of Alpha-Gal. Overall, 86% had heard of AGS, 84% knew AGS is related to tick bites, 61% thought there is not enough information about AGS for the public, and 31% were not sure.

Nutrition considerations for people living with AGS include treating it like any other allergy by avoiding foods that trigger symptoms, avoiding cross-contamination, and reading nutrition labels.

Foods that may trigger AGS symptoms include meat such as beef, pork, lamb, deer, organ meat like kidney, heart, liver, muscle tissue, animal fat (lard and tallow), dairy products, gelatin, carrageenan, and cross-contamination.

If making jam and jelly, please note that commercial pectin is not made with any gelatin or other meat ingredients. Commercial pectin is made from citrus fruit peel or apple pomace. It also usually contains dextrose and citric acid. Always read package labels.

To ensure that you are getting enough nutrients, consider for protein and iron: lentils, chickpeas, black beans, kidney beans, tofu, spinach, quinoa, pumpkin seeds, and fortified cereals; and for calcium, Vitamin D, and Vitamin B12: fortified plant milks, cereals, and nutritional yeast.

It's important to take precautions to avoid tick bites, which may lead to AGS, but if you do have this allergy, there are local support groups. More businesses are becoming aware of this allergy, as noted recently in southeast Kansas, where there is a local food truck that advertises its AGS-friendly menu items. For more

information on Alpha-Gal Syndrome, reach out to Sandy Haggard, Nutrition, Food Safety, and Health Agent, Southwind Extension District, SJHaggard@ksu.edu or 620.365.2242.

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