

Living Better with Allergies

By Dr. Thamiris V. Palacios-Kibler

A Carnivore's Worst Nightmare and the Acquired Red Meat Allergy

During my training at the University of Virginia's Allergy, Asthma and Immunology Center under the tutelage of Drs. Thomas Platts-Mills and Scott Commins, the discoverers of alpha gal allergy, diagnosing patients with the acquired mammalian allergy (alpha-gal) was a very common thing. This allergy is unknown in much of the country. The mammalian meat allergy is an emergent allergy, found in tick endemic areas-most predominantly in the southeastern part of the United States where Lone Star ticks live. However, it has spread to the west, and Midwest, as well as abroad to places like Central America, Australia and other continents.

The Lone Star tick is credited for causing the allergy. The tick's bite is thought to trigger an allergic reaction leading to the development of the antibody IgE against the polysaccharide (sugar) molecule galactose- α -1,3-galactose (α -Gal), which is a molecule found in non-primate mammals. Interestingly, this reaction can also occur, if bitten by seed ticks and chiggers.

What essentially happens is once a person has been sensitized to the sugar molecule alpha-gal, then the next time that person has a meal with beef, lamb, pork, deer or other mammalian meats, they can develop a delayed allergic reaction that starts about 4 to 6 hours after ingestion. Symptoms include shortness of breath, hives, swelling of the face, lips and hands and gastrointestinal symptoms like diarrhea.

To make the diagnosis, blood work is highly suggested, as traditional skin prick tests for this particular antibody often come back falsely negative. Based on the severity of the allergic reaction and the test results, avoidance of mammalian meat products is recommended, and therefore, a board certified allergist and immunologist should conduct the testing and management for this allergy.

If you are concerned about alpha gal allergy or have any other allergic needs, please contact us at the Asthma and Allergy Clinic of Dr. John Sweeney and Dr. Thamiris V. Palacios-Kibler and feel free to check out our website at asthmaandallergyva.com.