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June 25, 2024

For Immediate Release:

Tick Bites and Alpha-gal Syndrome

It was most likely a typical outdoor day in Nebraska for Diana Lecher when she received a tick bite that drastically changed her life. “I love the outdoors, so I considered it ‘normal’ and harmless to have several tick bites every year since I was a child,” Diana recalled.

Diana is one of possibly 110,000 cases of suspected alpha-gal syndrome (AGS) that has been diagnosed in persons in the United States. Alpha-gal syndrome is a serious, potentially life-threatening allergic condition that can occur after a tick bite. According to the Centers for Disease Control (CDC), in the United States, AGS is primarily associated with the bite of a lone star tick, but other kinds of ticks have not been ruled out.

Alpha-gal is a carbohydrate (or sugar) molecule found in most mammals. It doesn’t naturally occur in people. According to the Cleveland Clinic, the saliva of some ticks contains the alpha-gal molecule. When it enters the bloodstream, it can increase a human’s sensitivity to red meat. This has the potential to trigger an immune system response and the body reacts as if the red meat is harmful, causing allergic symptoms. Diana explains, “In 2009, I started having episodes of extreme itching and redness that progressively worsened over the next 6 years to the point I had to self-administer my EpiPen, take steroids, and often needed ER visits.” She goes on to say, “Despite allergy shots and preventative allergy medications, I had my worst reaction in 2014 when I was found unconscious on the floor at work. An EpiPen woke me up.”

Diana finally got answers when a new allergist ran a blood test that revealed she had AGS. “I cannot eat mammal meat from cows, deer, pigs, lambs, and goats. I only eat meat from birds and fish,” Diana explains. “This allergy is difficult to diagnose because the reaction is delayed 3-6 hours, and the reaction won’t occur every time but can occur anytime.”

Alpha-gal can also be found in medical products and medications, including the cancer drug cetuximab, and products from mammals such as gelatin and cow’s milk and personal care or household items. Diana says, “Some people affected by the allergy can’t eat byproducts like milk, cheese, and eggs, but I am lucky these do not bother me.”

Diana was unaware she was bitten by a tick, which makes AGS difficult to diagnose as tick bites are usually painless and often people do not even realize they’ve been bitten. That can mean an inability to identify the species of tick you were bitten by. “I learned the hard way to respect the many diseases that can be caused by ticks and other insects,” says Diana. “A few good prevention choices can avoid a dramatic change in your health and lifestyle.”

There is no treatment for AGS, as well as several other diseases associated with ticks. “I’m glad I don’t have the debilitating effects of other tickborne diseases such as Rocky Mountain Spotted Fever, Lyme diseases, or Tularemia,” Diana says.

Diana now only walks on mowed paths, performs tick checks, gives her dogs tick prevention medication, and free-ranges her chickens to control insects around her home. She also wears mosquito repellent to avoid insect-related diseases.

It’s also important to remember to avoid areas where ticks can be found such as areas of tall grass, bushes, and leaf litter. Conducting thorough tick checks and showering within two hours after being outdoors can also help wash off unattached ticks or make them easier to find. Wearing light-colored clothing can help you spot ticks easier if they cling to you. You can also treat your clothing and gear with products that contain 0.5% permethrin.

Ticks don’t have to take away from your summer outdoor fun. Practice good tick bite prevention everyday when you are outdoors, and you can help greatly reduce your chances of contracting a tick-borne disease.

To request further information on tick bite prevention, please visit www.pphd.ne.gov or call 308-487-3600 x108. Panhandle Public Health District is working together to improve the health, safety and quality of life for all who live, learn, work and play in the Panhandle. Our vision is that we are a healthier and safer Panhandle Community.