

Lyme not the only tick-borne illness

Others, like Anaplasmosis, can make their victims just as sick



GAZETTE STAFF/SARAH CROSBY

Joe Larson, 74, of Pelham, walks in the woods on his property wearing gaiters, a hat and clothing treated with Permethrin to repel ticks and other insects. Larson contracted anaplasmosis, a bacterial tick-borne infection, in June.

By LISA SPEAR
For The Recorder

Despite the prevalence of tick-borne Lyme disease warnings in our area, avid outdoorsman Joe Larson, 74, of Pelham never worried.

Ticks crawled on his arms and legs almost every day on walks in the woods behind his home — but when they bit him, he never got the rash typical of some tick-borne diseases. Then one day in June, he started to run a fever. Days passed, and the fever persisted. Food didn't taste right. He started to struggle with walking. His heart raced. "It got to the point where I was having trouble with balance," says Larson, a retired forestry professor. "I had never experienced anything like that before."

Worried that her hus-

band's condition was worsening, his wife called an ambulance. Once admitted to Cooley Dickinson Hospital in Northampton, Larson learned that he had become infected with a bacterial tick-borne illness called anaplasmosis. Unlike the Lyme disease, anaplasmosis is a relatively rare illness, but is has increased in incidence 10-fold over the last seven years in Massachusetts, according to the Department of Public Health.

"Clearly there is a trend toward greatly increased numbers of cases," says Dr. William Swiggard, an infectious disease doctor at Cooley Dickinson Hospital.

No warning rash

Anaplasmosis causes many of the same symptoms Lyme disease does, like fatigue and fever — and re-

quires treatment with antibiotics — but typically it does not come with some of the more serious chronic problems that Lyme can cause, like arthritis and inflammation of the brain and spinal cord, according to the State Department of Public Health. It is impossible to say which infection is more severe because both vary widely on a case-by-case basis, says Swiggard. But anaplasmosis can be fatal for people who are immunosuppressed or over the age of 65, he says. Because it doesn't come with a rash, and has symptoms similar to the flu, it's easy — but dangerous — for those people to delay treatment, Swiggard says.

Larson says he doesn't remember much from the night he spent in the hospital as doctors worked to diagnose his case.

"I learned afterward that it does not create the circular rash that people look for in other tick bites," he says. "... If I look back on it, I probably should have gone to the hospital two days earlier."

Cases increase

Anaplasmosis was virtually unknown in this area just a few years ago, with only one case reported in Hampshire County in 2010 and none in Franklin County, compared to 122 cases of Lyme that year in both counties. Over the last two years, there have been a record 68 cases of anaplasmosis in Hampshire and Franklin counties.

Like Lyme disease, it is transmitted from the black-legged tick, also called the deer tick, and symptoms may not show up for a week or more after the tick bite.

Since young, healthy people might be able to fight off the infection without antibiotics, doctors suspect that the actual number of cases could be higher, says Swiggard.

Once someone is infected, the anaplasmosis bacterium invades white blood cells, the very cells in the body that typically fight infections. Inside the cells, they then start reproducing, says Swiggard.

"These (white blood) cells are in the business of engulfing and destroying bacteria — it is one of their main jobs and here, this thing has penetrated inside this bacteria-fighting cell and it is just having a grand old' time," he says.

Most tick-borne illnesses function differently. Others are microscopic parasites, like Babesiosis, which infect red blood cells. Lyme is a corkscrew-shaped bacteria that, if not treated, can invade the fluid in the joints.

"These are very bizarre bacteria that do not behave like other bacteria," says Swiggard. "These are weird bugs."

What these infections do have in common is an overall increase in prevalence, spread by ticks in recent years. Some reports attribute this change to warmer and shorter winters, which give ticks a longer life span.

Lyme disease is still the most common of the illnesses, with 152 confirmed cases in Hampshire and Franklin counties in 2014, according to the latest data from the Department of Public Health. The public is less informed about the others, like anaplasmosis.

Often the patients who end up in the emergency room

with anaplasmosis are older, since immune systems weaken with age. They may look ashen and confused, Swiggard says.

"This is something where you don't want to wait a few days for the lab tests to come back," he says, adding that if he suspects an anaplasmosis infection, he prescribes antibiotics immediately. If the diagnosis is correct, the patient will start to perk up within 24 hours with the medication, he says.

Protection a priority

Larson's symptoms have mostly subsided after a course of treatment, but he says he still has bouts of fatigue. Before he got sick, he says, he would spend hours every week wandering the 20 acres of woods around his house. Now, he takes fewer such hikes.

"It changes your thoughts about going out in the woods," he says.

When he does venture out, protecting himself from ticks is now foremost on his mind. He puts on gaiters, cloth leg coverings that fit snugly around his shoes and ankles. He wears long pants and a long-sleeve shirt that are treated with a chemical bug repellent called permethrin, an insecticide that can be sprayed on clothing. Some sporting goods stores also sell clothes that have permethrin treated fibers weaved into them.

On a recent sunny Friday afternoon, with the temperature hitting 90 degrees, Larson was heading out for a hike looking like he was dressed for a chilly fall day.

"Self-protection against tick bites remains our first and best defense," says Swiggard. Protective clothing can help, but it is also important to know about high-risk areas, like tall grasses and shrubs and do tick checks after being outdoors.

Bug sprays that contain DEET are a safe and effective way to repel ticks. There are also natural insect repellents, like oil of lemon eucalyptus, says Swiggard.

"Ticks don't drop down from the trees on you. They are sitting on leaves with their arms out, waiting for nice juicy deer to come by," he says, but if you happen by first, they'll latch onto you instead.

Larson sometimes spots ticks on the ferns around his house, but they also like to sit on the blueberry bushes, he says.

When he moved here in the 1960s, the forest was tame, he says. He never saw ticks back then. His children, who are now grown, spent their childhoods playing in the woods and never had a tick bite, he says. Ticks started appearing in the 1990s, he says, and the population has grown ever since.

"We have encountered more ticks this year than we ever have."

Larson's anaplasmosis slowed him down for a few weeks, but he still loves spending time outside and is determined not to let his experience change that.

"You just have to be very careful. It's a minority of the ticks that actually carry the disease, but all it takes is one."



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Joe Larson makes sure he is protected when he takes walks on his property or through other wooded areas where ticks may be abundant.