Healthy people may be unaware they are infected with Babesia

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The numbers of individuals in the US who are unaware they are infected with *Babesia* could be significant. At least 300,000 people are diagnosed with Lyme disease every year in the US. And up to 40% of those with Lyme disease in the northeast have been found to also be infected with *Babesia*. [2]

In fact, <u>Linden and colleagues</u> from the Wadsworth Center, New York State Department of Health found, "The incidence of both community-acquired babesiosis and TTB [transfusion-transmitted babesiosis] <u>increased significantly</u> during the 12-year study period." And, "The geographic range of both ticks and tickborne infections also expanded." [1]

Cases of Babesia transmitted through blood transfusions are on the rise.

In 2004, there were 91 cases of community-acquired *Babesia*, compared to 576 cases in 2015, Linden explains. Meanwhile, there were 55 transfusion-transmitted cases.

According to the study, 3,799 cases of babesiosis were reported in New York over the 12-year period. Fifty-five of these individuals acquired *Babesia* through a blood transfusion from donors who were unaware they were infected. More than half of the recipients were 60 years of age or older.

The donors discovered they were infected after these 55 individuals received their blood donation and became ill. Two of the transfusion recipients were infected on different occasions. In one case, 2 units of blood were donated by a single donor 56 days apart. In the other case, 2 units were donated 69 days apart.

The authors also found that 50% of the individuals donated blood between July and September, when *I. scapularis* tick activity is at its peak. Still, Linden points out, "at least one implicated donation took place in each month of the year."

The majority of the donors lived in counties endemic for *Babesia microti*, with most living in <u>New York</u>. One upstate New York resident had traveled to Connecticut. Others included: 7 individuals donating from New Jersey; 3 donations imported from blood centers in Massachusetts; 1 donor from Rhode Island, and 1 donor from Pennsylvania.

The need to develop methods for effectively screening blood donors for *Babesia* has never been greater. Two of the individuals who acquired *Babesia* through a blood transfusion eventually died from the infection. As Linden points out, "No licensed test for donor screening is available and investigational testing is not available in all areas."

Furthermore, "Testing for evidence of B. microti infection may not detect other species of Babesia or

other agents, such as <u>Anaplasma phagocytophilum</u>, which is carried by the same tick vector and can result in signs and symptoms very similar to those seen in babesiosis," Linden concludes.

Related Articles:

Blood donor infects premature infants with Babesia

Study raises concerns for Babesia patients and blood banks

Transfusion-transmitted babesiosis popping up in more states in USA

References:

- 1. Linden JV, Prusinski MA, Crowder LA, et al. Transfusion-transmitted and community-acquired babesiosis in New York, 2004 to 2015. Transfusion. 2018.
- 2. Diuk-Wasser MA, Vannier E, Krause PJ. Coinfection by Ixodes Tick-Borne Pathogens: Ecological, Epidemiological, and Clinical Consequences. Trends Parasitol. 2015.

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