Patient contracts Babesia from a blood donor

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In their article "Transfusion-transmitted babesiosis in a patient with sickle cell disease undergoing chronic red cell exchange," Costa and colleagues describe a patient who contracted *Babesia* from a donor living in Ohio, a state that is not considered endemic for *Babesia*.[1]

According to the authors, a 30-year-old man with sickle cell disease (SCD) required approximately 10 units of red blood cells every 3–4 weeks throughout his childhood.

Approximately 2 months after a red blood cell exchange, he presented with fever, neck pain, and photophobia. Several days later, he developed a persistent fever, chills, headache, fatigue, and loss of appetite.

He was diagnosed with *Babesia* through identification of parasites in his red blood cells and positive antibodies. He was also borderline positive on an antibody test for Anaplasma phagocytophilum and Ehrlichia chaffeensis.

"Prior to laboratory-based blood donor screening for *Babesia*, transfusion-transmitted babesiosis (TTB) was a leading infectious risk to the blood supply in the United States."

The young man was treated for *Babesia* with azithromycin and atovaquone for 10 days with resolution of his symptoms. He was not treated for Anaplasma phagocytophilum or Ehrlichia chaffeensis.

The patient lived in a state endemic for *Babesia* but did not recall a tick bite.

"A donor lookback investigation was initiated with the blood supplier," the authors wrote. They found that in the preceding 6 months, the patient had received 65 units of blood, with 58 units screened for *Babesia.*

Unfortunately, "One of the donors of the 7 untested units was *B. microti* seropositive," the authors wrote. The donor lived in a state not requiring *Babesia* screening.

"Our case demonstrates the continued vulnerability of the US blood supply to *Babesia.*"

"The seropositive donor had not had any symptoms of babesiosis; he lived in Ohio and reported being very active over the past year, including hiking and camping in several states (Ohio, Tennessee, and North Carolina)," the authors wrote.

In 2019, the FDA recommended testing of blood donors for Babesia in the 14 states where almost all cases of *Babesia* have been reported. "The policy confined to 14 states (Connecticut, Delaware, Maine, Maryland, Massachusetts, Minnesota, New Hampshire, New Jersey, New York, Pennsylvania, Rhode

Island, Vermont, Virginia, Wisconsin),” wrote the authors.

Authors Conclude:

“Heightened awareness and health care provider education are imperative, especially in non-endemic [states] where clinicians may not be accustomed to diagnosing community-acquired or TTB, placing transfusion recipients at risk of delayed diagnosis and severe disease.”

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References:

1. Costa V, Mercure-Corriveau N, Gourneau J, et al. Transfusion-transmitted babesiosis in a patient with sickle cell disease undergoing chronic red cell exchange. Transfusion. Jan 13 2023;doi:10.1111/trf.17244
