

## **A severe Babesia infection**

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<https://danielcameronmd.com/a-severe-babesia-infection-leads-to-exchange-transfusion/>

Although the majority of *Babesia* cases are treated with antimicrobial agents, patients with severe cases may require an exchange transfusion (ET). In their article, [“Repeat exchange transfusion for treatment of severe babesiosis.”](#) Radcliffe and colleagues describe the case of a 73-year-old woman with an extreme case of a *Babesia* infection, who was immunocompromised. [3]

**The woman ultimately required 2 exchange transfusions, along with prolonged anti-parasitic therapy to successfully treat the *Babesia microti* infection.**

Approximately 1 month after camping in New Hampshire, the woman developed malaise, headaches, weakness, anorexia, and nausea, which lasted for 4 days. She did not recall having a tick bite.

The patient had a history of splenectomy, an autoimmune disorder, and immunosuppression therapy. “Her medical history was significant for longstanding rheumatoid arthritis treated with weekly etanercept and prior splenectomy for immune-mediated thrombocytopenia,” writes Radcliffe.

A blood smear revealed a parasitic burden of 43% and anemia with hemoglobin 9.2 mg/dL. “She was started on azithromycin and clindamycin and transferred to our hospital,” writes Radcliffe.

The woman was admitted to the intensive care unit for hypotension. She initially needed fluids and vasopressors, as well as supplemental oxygen for a pulse oximetry of 88%.

Her treatment for the *Babesia* infection was changed to include: IV clindamycin, oral quinine sulfate, and oral doxycycline, as empiric treatment for possible co-infection with Lyme disease and/or anaplasmosis.

And on day 1, she received a red blood cell exchange transfusion of 12 units. This dropped the parasite load to 7.6%.

However, “despite a post-exchange drop in parasitemia to 7.6%, it rebounded to 11.4% on hospital day 5 accompanied by new onset high fevers and hypoxia,” explains Radcliffe.

On day 5, she received her second exchange transfer, which lowered parasitemia to 2.2%.

**“She improved after a second exchange transfusion and ultimately resolved her infection after 12 weeks of anti-babesial antibiotics,” writes Radcliffe.**

She underwent extended treatment for the *Babesia* infection, in part due to a parasitemia at day 9 of 1.7% and <1% at day 19.

“Antibiotics were discontinued as follows: atovaquone/proguanil at 61 days post-discharge, doxycycline

at 72 days post-discharge, and azithromycin at 86 days post-discharge,” writes Radcliffe.

*There are only 6 other cases in the literature documenting exchange transfusions in patients with Babesia. Unfortunately, one of those patients died.*

“Our present case is instructive,” the authors explain, “because two ETs were necessary for cure despite a marked lowering of parasitemia after the first ET (81.5% reduction) and an extended anti-parasitic regimen...”

**The authors conclude: “These cases highlight the need to remain vigilant when managing babesiosis in highly immunocompromised patients.”**

Editor's note: This patient’s case should serve as a reminder of the risk *Babesia* poses for immunocompromised patients with autoimmune disorders such as rheumatoid arthritis.

**Related Articles:**

[Case series looks at the complexity of Babesia](#)

[Case report: Various clinical presentations of Babesia](#)

[Healthy people may be unaware they are infected with Babesia](#)

**References:**

1. Krause PJ. Human babesiosis. *Int J Parasitol* 2019;49(2):165–74.
2. Krause PJ, Gewurz BE, Hill D, Marty FM, Vannier E, Foppa IM, et al. Persistent and relapsing babesiosis in immunocompromised patients. *Clin Infect Dis* 2008;46(3):370–6.
3. Radcliffe C, Krause PJ, Grant M. Repeat exchange transfusion for treatment of severe babesiosis. *Transfus Apher Sci*. 2019 Sep 5. pii: S1473-0502(19)30189-2.

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