Blood smear not reliable in diagnosing Borrelia miyamotoi disease

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Some doctors have suggested that a blood smear should be used to confirm the diagnosis of BMD. But as Telford and colleagues demonstrate, a blood smear may not be so reliable. [1]

In an effort to determine whether blood smears can detect B. miyamotoi in the blood of acute BMD patients, researchers examined sera from 20 patients, who were positive for BMD by PCR testing.

The authors “looked for evidence of BMD using standard malariological thick smears from anticoagulated blood samples.”

But after examining 100 thick smear fields in 20 patient samples, the authors could not find evidence of BMD in any of the patients.

They were, however, able to find evidence of BMD in 2 of the 20 patient samples after examining 300 thick smear fields.

The authors conclude, “microscopy of blood smears is not sensitive enough for confirming a diagnosis of BMD.”

The Centers for Disease Control and Prevention (CDC) continues to recommend using PCR and antibody-based tests to confirm a diagnose of B. miyamotoi.

Editor's note: I am not sure how sensitive the PCR and antibody tests are for BMD.

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References: