

QUESTION
A 28-year-old male patient presents with a 2-week history of low-grade fever, weight loss, and fatigue. He reports a recent travel history to the Mediterranean region. Physical examination reveals a mild splenomegaly. Laboratory studies show a hemoglobin of 12 g/dL, hematocrit of 38%, and a white blood cell count of 10,000/mm³ with a normal differential. The erythrocyte sedimentation rate is 45 mm/hr. Which of the following is the most likely diagnosis?

- A) Tuberculosis
- B) Malaria
- C) Brucellosis
- D) Histoplasmosis
- E) Coccidioidomycosis

ANSWER
C) Brucellosis
Brucellosis is a systemic infection caused by Brucella species, often presenting with a prolonged fever of unknown origin, weight loss, and fatigue. Splenomegaly is a common physical finding. The laboratory findings, including a normal hemoglobin and hematocrit, a leukopenia with a normal differential, and an elevated erythrocyte sedimentation rate, are consistent with this diagnosis.

EXPLANATION
The patient's symptoms and physical findings are most consistent with brucellosis. Tuberculosis typically presents with a more insidious onset and may show a more pronounced leukopenia. Malaria often shows a more acute onset with chills and rigors. Histoplasmosis and coccidioidomycosis are more common in the southwestern United States and typically present with a more acute onset of symptoms.

REFERENCE
1. Murray PR, Tenenbaum JB, Tenenbaum JB. *Microbiology: An Introduction*. Elsevier; 2013:115-125.
2. Murray PR, Tenenbaum JB, Tenenbaum JB. *Microbiology: An Introduction*. Elsevier; 2013:115-125.
3. Murray PR, Tenenbaum JB, Tenenbaum JB. *Microbiology: An Introduction*. Elsevier; 2013:115-125.

