

Nester et al.

MICROBIOLOGY: A Human Perspective

Case 2

A 27-year old white female presented at the walking clinic of her local physician on August 15. On physical exam, the patient had a fever of 38.5C. She appeared fatigued, had tender joints, and complained of a headache, a stiff neck and a backache. The physician noticed a circular "rash" about 5 inches in diameter, with a bright red leading edge and a dim center in the form of a "bull's eye". The physician noted an irregular heart beat. The patient complained of lack of ability to concentrate.

The patient gave the following history: She is a graduate student in the wildlife program at the university in town. She was in the field for three weeks in Wisconsin during the months of May and June. She tracks small mammals in the field and studies their behavior. It had been a warm, wet spring and she complained of a large number of biting flies, mosquitoes and ticks in the area. She felt well until about 2 weeks after returning to her home. Since that time, many of her symptoms had progressed. She finally found that she could take it no more.

1. What is your best diagnosis of this case?
2. What features are critical to your diagnosis?
3. What further steps should be taken to clear up the problem?

Answers

1. Lyme Disease
2. Working in the Wisconsin woods, the bull's eye rash, fever, cardiac changes, joint pain
3. Antibiotic therapy with Ampicillin and ceftriaxone or erythromycin; monitor for long-term cardiac and joint problems and treat symptomatically.