

Unexplained Fever and Lymphadenopathy



Julie Steinbrink¹, Hannah Dzimitrowicz², Anand Lagoo³, Arthur W. Baker¹

1-Duke University, Division of Infectious Diseases, 2-Duke University, Department of Medicine, 3-Duke University, Department of Pathology

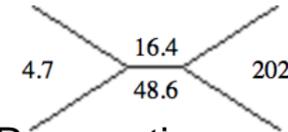
Case Presentation

- 59-year-old male with a history of idiopathic dilated cardiomyopathy who underwent heart transplantation 12 years prior saw his PCP for a superficial right thigh nodule & mild inguinal adenopathy. He was started on trimethoprim-sulfamethoxazole but subsequently developed fever and presented to the hospital.
- Exam: notable for temperature of 38C; a II/VI systolic cardiac murmur at the right upper sternal border; a 1 CM non-draining right medial thigh nodule; and an enlarged, nontender right inguinal lymph node.
- He continued to have fevers as high as 39.4C and developed progressive fatigue and night sweats. His thigh nodule remained stable.



Labs & Studies

AST: 55 → 86, ALT: 60 → 127, Total Bili: 0.7 → 1.0, AlkPhos: 87 → 165.



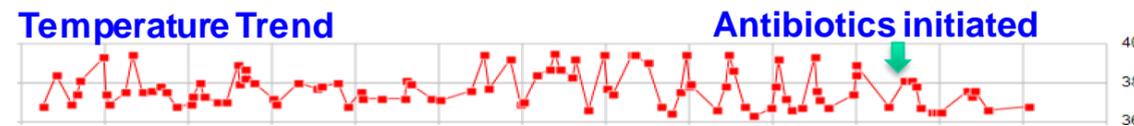
- Cultures, fungal studies, and viral PCRs negative
- Bartonella & toxoplasma serologies negative.
- Thigh nodule biopsy: Dense acute and chronic inflammation. Negative cultures.
- TTE: No vegetation or valvular dysfunction.

Social History

- Lives in Virginia; nuclear engineer; no illicit drug use, no travel. He and his wife feed outdoor cats but have no direct contact with any animals.

Diagnosis and Treatment

- PET: retroperitoneal, pelvic, left adrenal, and right inguinal lymphadenopathy and diffuse splenic uptake.
- Inguinal lymph node biopsy obtained (Figures 1 & 2). Serum and lymph node *B. henselae* PCR positive.
- Started on azithromycin and doxycycline for a 3 month course. Symptoms quickly resolved.



Pathology

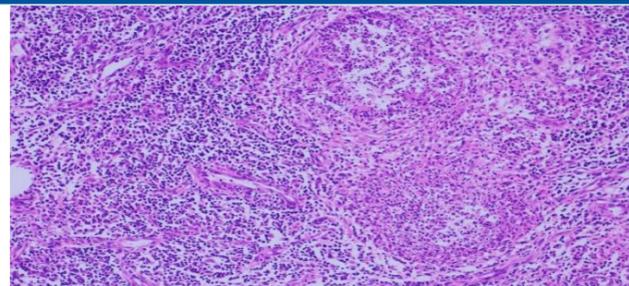
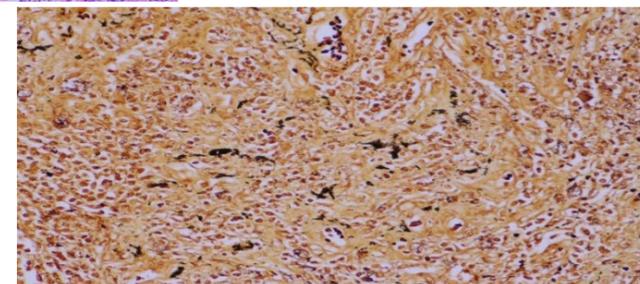


Figure 1. Inguinal Lymph Node H&E stain, 10x. Suppurative granulomatous lymphadenitis.

Figure 2. Inguinal Lymph Node Warthin Starry Stain, 40x. Highlighting *B. henselae* bacilli.



Discussion

- Bartonella henselae*: gram-negative bacilli, associated with cat and flea exposure.
- Immunocompetent: localized and self-limited lymphadenitis → cat scratch disease (CSD). Immunosuppressed: disseminated infection.
- Disseminated infection presents earlier in the post-transplant course; localized CSD typically presents later.
- Symptoms: nonspecific → fever, night sweats, headache, hepatomegaly, splenomegaly
- Diagnosis: serology (usually positive, but can be negative early on), PCR, culture. Histopathology → granulomas; Warthin-Starry silver stain highlights the *Bartonella* bacilli.
- Treatment:
 - CSD: no treatment or azithromycin
 - No guidelines for disseminated infection. Macrolides often used as monotherapy or in combination with doxycycline for a few weeks to several months, depending on the degree of dissemination and clinical response.

References

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