Mousing for a Diagnosis: Cat Scratch in an Immunocompromised Host

Jonathan Beilan

Corresponding author: Jonathan Beilan

1. University of Central Florida College of Medicine

Categories: Infectious Disease

Keywords:

How to cite this poster

Abstract

Introduction: Disseminated bacillary angiomatosis (BA) is a rare disease most commonly diagnosed in patients with AIDS. The variability of presentation and the myriad of illnesses such patients can contract pose a significant clinical challenge for physicians. Case presentation: A 47-year-old African American female presented for acute abdominal pain. She had a history of multi-drug abuse, HIV with AIDS, Hepatitis B and C, recent 35 pound weight loss, and recurrent pancreatitis. The patient appeared malnourished and had epigastric tenderness with rebound and guarding. Two erythematous, nontender nodules were present on the right neck measuring 1.5 cm and 1 cm in diameter. These blanchable lesions were firm and moveable; the larger one exhibited central ulceration. Also notable were oral candidiasis and lymphadenopathy in the cervical and supraclavicular areas. CT scan of the abdomen/pelvis revealed internal mammary chain and epigastric retroperitoneal lymphadenopathy, suspicious for underlying malignancy. The patient was started on ceftriaxone for UTI, fluconazole, and trimethoprim/sulfamethoxazole. Her diffuse lymphadenopathy focused the concern on lymphoreticular malignancy; the differential diagnosis of the skin nodules was extensive. Serology included an unremarkable CMP, lipase of 20 uL, WBC of 4,000 cells/uL, and CD4 count of 5 cells/uL. Blood cultures, Histoplasma urine antigen, and Cryptosporidium serum antigen were negative. Biopsies of the skin nodules and a supraclavicular lymph node revealed vascular proliferations and bacilli, confirming a diagnosis of systemic BA. Immunology was positive for IgG against Bartonella henselae. On further questioning, the patient revealed past exposure to a kitten belonging to her nephew, who was previously diagnosed with cat scratch disease. The patient began to recover once placed on clarithromycin. Conclusion: This case demonstrates the need for a thorough history and physical with a broad differential diagnosis during the assessment of immunocompromised patients. Cat scratch
disease and BA are caused by the same organism, emphasizing how the presentation, clinical course, and treatment of an infection can vary depending on the host’s immunological state.