CLINICAL VIGNETTE

Head Scratcher or Cat Scratcher?

Ryan Clagg, MD and Rosemarie DiPentino, MS2

Case

A 28-year-old male with a history of attention deficit hyperactivity disorder (ADHD) presented with 4 days of left axilla pain. The patient characterized the pain as an intermittent squeezing sensation that worsened with touch and made it difficult for him to sleep through the night. He described numerous constitutional symptoms, including fever, chills, and a 25-pound unintentional weight loss over the past 6 months. He also noted that he as a heavy alcohol user and had quit drinking during that time. In addition to his prior heavy alcohol use, he previously abused stimulant medication during college, which had been prescribed for ADHD. He smokes marijuana twice a day, nearly every day, and does not eat as much when he smokes. He reported frequent night sweats in the past which stopped in the last few weeks. He has three cats at home but did not recall recent bites or scratches.

On exam, he was afebrile with normal vital signs. His physical exam was significant for a slightly edematous left axilla, which was tender to palpation. No discrete lymph node was appreciated, and overlying skin was free of warmth, erythema or drainage. The remainder of the physical exam was unremarkable. In addition to routine labs, because of his three pet cats, *Bartonella henselae* antibody panel was ordered.

The *Bartonella henselae* Ab panel returned positive for IgG, 1:1024 and negative for IgM, <1:16, confirming the suspicion of cat scratch disease (CSD). He was informed of the diagnosis of CSD and prescribed a 5-day course of azithromycin.

The patient returned for follow-up 2 weeks later. He reported that the pain and swelling in his left axilla resolved shortly after his initial visit, prior to starting antibiotics and he was free of axillary lymphadenopathy. Both the left and right axilla were non-tender to palpation and no evidence of overlying skin. He denied fever or any additional symptoms.

Discussion

Bartonella henselae is the bacterium responsible for the painful lymphadenopathy in CSD. More than half of cases are in children and mild cases may resolve without treatment in immunocompetent patients. When treatment is initiated, Azithromycin is the drug of choice. The infection can progress from a macule or pustule at the site of the scratch or bite and result in the lymphadenopathy described in this patient. This lesion at the inoculation site can be present for as brief as 1-3 weeks.[1] The patient denied any known scratches, so there were no clues to finding this site.

Reactive lymphadenopathy and abscess were included in the differential for this patient as well as more grave diagnoses considering the red flags of fever, night sweats and weight loss. His acknowledgment of stimulant abuse could have accounted for his dramatic weight loss. The patient was an inconsistent historian and narrowing his differential was difficult, requiring more thorough history. Initial evaluation included imaging and a consideration of referral for possible excision of the axillary lymph node. After the patient reporting three pet cats, Bartonella serology was order and returned with IgG Bartonella titers greater than 1:256, consistent with acute infection.[2] His IgG titer was 1:1024, easily meeting criteria for this diagnosis. Although he noted improvement in lymphadenopathy, prior to starting antibiotics, due to his high titers, Azithromycin was started to prevent worsening infection and recurrence of symptoms.

Checking titers in this patient prior to more advanced workup of imaging or even lymph node dissection in the context of concerning symptoms illustrates the importance of thorough history taking in unclear and potentially emergent cases. This led to prompt cost-effective care.

REFERENCES

1. **Baranowski K, Huang B**. Cat Scratch Disease. 2020 Jun 23. In: *StatPearls [Internet]*. Treasure Island (FL): StatPearls Publishing; 2021 Jan–. PMID: 29489252.
2. **Klotz SA, Ianas V, Elliott SP**. Cat-scratch Disease. *Am Fam Physician*. 2011 Jan 15;83(2):152-5. PMID: 21243990.