

An Uncommon Presentation of Cat-Scratch Disease: Bilateral Inguinal Lymphadenitis

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Dear Editor,

Cat scratch disease, caused by *Bartonella henselae*, usually affects immunocompetent individuals, rarely causes severe complications, and should be considered in the differential diagnosis of lymphadenitis (1). This report presents a pediatric case of cat scratch disease (CSD) with lymphadenopathy at an atypical site, namely the inguinal region. A 16 year-old girl presented with bilateral painful inguinal lymphadenopathy to the pediatric infectious diseases outpatient clinic of Balıkesir Atatürk City Hospital. She reported having noticed it long ago, but presented due to worsening symptoms. Physical examination revealed bilateral inguinal lymphadenopathy with tender, erythematous lymph nodes. Examination of the lower extremities revealed no healing wounds, or papular/pustular lesion. The patient had a BCG scar. Ultrasound examination revealed enlarged inguinal lymph nodes with hypoechoic centers, cortical thickening findings, suggestive of a necrotic granulomatous process (left: 6 × 4 cm; right: 4 × 3 cm). Chest radiography and abdominal ultrasonography were normal. No signs of hepatomegaly or splenomegaly were observed. Laboratory findings showed these results: C-reactive protein (CRP): 166 mg/L (normal range: 0-5 mg/L), erythrocyte sedimentation rate: 43 mm/hr, alanine aminotransferase: 31 U/L (0-27 U/L). The other laboratory parameters were normal. Blood and urine cultures were negative. Serologic tests for Epstein-Barr virus, cytomegalovirus, toxoplasma, Brucella and HIV were negative. The patient was diagnosed with acute bacterial lymphadenitis and received treatment with ampicillin-sulbactam and clindamycin. Following the initial treatment, a

more detailed history was obtained, which provided additional relevant clinical information. The patient has a cat at home but could not remember any instances of being scratched by the cat. Drainage was performed from the swollen lymph node and samples of the abscess fluid were tested for Gram staining, aerobic and anaerobic bacterial cultures, acid-fast bacteria (AFB) smear, and mycobacterial cultures. The cultures did not show any growth, and the AFB smear was negative. The tuberculin skin test was resulted negative. During the follow-up, no growth was observed in the mycobacterial culture. Pediatric hematology-oncology consultation and evaluation, including peripheral smear, revealed no evidence of malignancy. Due to a history of cat exposure, blood samples were sent to the Public Health Reference Laboratory for confirmatory testing. The indirect immunofluorescence assay (IFA) testing was positive for *Bartonella henselae*, with a titer of 1:256. Ophthalmological examination was unremarkable. After being diagnosed with cat scratch disease (CSD), the treatment began with a five-day course of oral azithromycin. However, because the expected improvement was not observed during follow-up despite initial surgical drainage and partial symptom relief, the five-day azithromycin regimen was repeated, and oral rifampicin was included in the treatment plan. During clinical reassessment, the patient showed significant clinical improvement, including resolution of pain and enhanced mobility. Repeat ultrasonographic evaluations demonstrated a reduction in lymph node swelling. No relapse was observed. This case demonstrates inguinal lymph node involvement, a rare manifestation of cat-

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scratch disease. This disease, CSD, may develop following a scratch from a cat infected with *Bartonella henselae* however, it may also occur without a history of a cat scratch, as transmission can happen through alternative routes such as flea exposure or contact with infected saliva (2). In classic presentations of CSD, regional lymphadenopathy arises within a couple of weeks after exposure and can last for months (3). The early stage of the infection begins with the appearance of papules or pustules at the point of entry of the infectious agent (2). Regional lymphadenopathy is the main feature of CSD, typically presenting as tender nodes with overlying skin erythema and occasional suppuration (4). 30% of CSD cases progress to suppurative lymphadenitis; but abscess formation evolves over time. Roughly 10-15 % of affected nodes require drainage (3). The elevated CRP level observed in our patient likely indicates a pronounced inflammatory response associated with suppurative lymphadenitis (4). Bilateral inguinal involvement has been rarely reported in the literature (1, 4). The detection of high titer IgG antibodies against *Bartonella henselae*, concurrent with lymphadenopathy demonstrating necrosis and granulomas on imaging, the absence of any other cause, substantiate the diagnosis in a patient with daily cat exposure (4, 5). *Bartonella henselae* IFA IgG titer of 1:256 or greater strongly indicates the presence of an active or recent *Bartonella henselae* infection (5). Patients with CSD accompanied by lymphadenitis are recommended a five-day course of azithromycin. In cases where the condition shows resistance to initial therapy, a second course of therapy involving a five-day regimen of azithromycin, with oral rifampin for the same duration, can be considered in refractory cases, potentially because of its synergistic effect and enhanced efficacy in more severe disease (3). In conclusion, careful history taking and appropriate investigations are essential for the

diagnosis of CSD, which should be considered in pediatric patients presenting with lymphadenopathy and a history of cat exposure.

Funding: None.

Disclosure of interest: The author report no conflict of interest.

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