Disseminated Cat Scratch Disease in an Immunocompetent Child – A Rare Case Presentation

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Presenting Author: Katie Higgins Langley, M.S., M.D., Pediatrics Resident PGY2, Department of Pediatrics, University of Oklahoma Health Sciences Center, Oklahoma City, OK, Oklahoma City, OK

Coauthors: Yashas Nathani, MD, Clinical Assistant Professor, Department of Pediatrics, Section of Pediatric Emergency Medicine, Children's Hospital of Oklahoma, OU Health, Oklahoma City, OK

Cat Scratch Disease generally causes a relatively mild, self-limiting illness in immunocompetent patients, including children. Here we present a unique case of a healthy child who developed a rare form of disseminated Cat Scratch Disease (CSD).

A previously healthy 3-year-old female presented to the Emergency Department (ED) multiple times for evaluation of fever, irritability, abdominal pain and decreased oral intake. During the initial presentation of prolonged fever and superficial thumb cellulitis, the patient was hospitalized and appendicitis, MIS-C, osteomyelitis were ruled out, with urine and blood cultures being negative. Subsequent infectious work-up due to persistent fever revealed positive mycoplasma titers and she was started on a five-day course of Azithromycin as outpatient. Two days after discharge, she returned to the ED for similar symptoms. At this time, her inflammatory markers were elevated, and an abdominal ultrasound showed multiple splenic, and then liver lesions suggestive of small abscesses. She was admitted and started on Azithromycin and Rifampin for concerns of systemic mycoplasma infection. Additional infectious serology panels were obtained throughout her admission. Due to continued daily fevers, antibiotic coverage was broadened until Bartonella IgG titers resulted as strongly positive (1:2560), making hepatosplenic cat scratch disease as the likely etiology, given the remote history of the child playing with kittens. Patient was discharged home on Cefdinir and Azithromycin after being afebrile for more than a week and significant clinical improvement. In the outpatient setting, she received serial abdominal ultrasounds showing resolution of her liver and splenic abscesses.

Most cases of CSD in immunocompetent children result in a self-limiting febrile illness and lymphadenitis and do not require antibiotic therapy, however, this healthy child with no underlying immune deficiency developed disseminated form of this disease in the form of hepatosplenic abscesses and systemic bartonellosis.

Learning Objectives:
- Discuss the differential diagnoses for hepatosplenic lesions in the pediatric population
- Describe the treatment of a child with disseminated Cat Scratch Disease