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Cat Scratch Disease with Abdominal Lymphadenopathy: An Atypical Case

*Carlos Sánchez Salguero**

Head of Pediatric Allergy Unit, University Hospital Puerto Real (Cádiz), Spain

Abstract

Cat scratch disease is a disease caused by *Bartonella henselae*. 90% of the patients have a history of contact with cats, highlighting the presence of regional lymphadenopathy depending on the site of inoculation. We describe an atypical case of cat scratch disease with abdominal lymphadenopathy in an adolescent without contact with animals. The diagnosis was made after the anatomopathological and serological study. Most atypical forms described in the literature consulted include hepatic, splenic, neurological, ocular, cardiac, hematologic, or osteolytic lesions; Being exceptional to find clinical cases with abdominal lymphadenopathy. There is no evidence of the usefulness of antibiotics for their treatment, since spontaneous resolution is frequent in patients without significant involvement.

Keywords: Cat scratch; Abdominal lymphadenopathy; *Bartonella henselae*

Introduction

Cat scratch disease is an infectious, benign, self-limiting disease caused by *B. henselae*. It is one of the most frequent causes of regional painful lymphadenopathy in children and young people. Transmission occurs by scratching, biting or licking small cats (78%), and rarely by dogs, monkeys or by lesions with spines. Approximately 90% of patients have a history of contact with cats and in less than 1% there is no such fact [1,2].

In immunocompetent patients, the typical presentation is characterized by fever, headaches, myalgias and regional adenopathy, which appears 7 to 10 days after the scratch, satellite to the site of inoculation, characterized by a papule or pustule. The location of the adenopathy depends on the site of inoculation, with the axillary nodes being the most affected followed by the cervical, submandibular, inguinal, femoral and popliteal nodes; being less frequent epitrochlear and preauricular involvement. In 5-20% of cases, atypical forms of presentation or systemic involvement are described, such as Parinaud's glandular syndrome, hepatosplenic, bony or encephalic involvement, as well as erythema nodosum, vasculitis, thrombocytopenic purpura, Hemolytic anemia, endocarditis, atypical pneumonia, optic neuritis, etc. [1,3].

We describe an atypical case of cat scratch disease with abdominal lymphadenopathy in an adolescent without contact with animals and without injury of the inoculation point. The diagnosis was made after surgery for suspected acute appendicitis.

Clinical Observation

Patient of 12 years with abdominal pain of several days of evolution accompanied by fever and general malaise. The abdominal palpation was painful especially in the right iliac fossa where there was muscular resistance. In the blood test, we found 11.73 x 10^3 / UL leucocytes, 86.1% polymorphonuclear and a C Reactive Protein with value of 14.5 mg / L. Abdominal ultrasound showed multiple abdominal adenopathies, maximum 16 mm in size, inflammatory changes in terminal ileum and adjacent hyperechoic fat, not identifying the appendix. After 24 hours of observation and clinical worsening of the patient, it was decided to operate in the suspicion of acute appendicitis. Numerous lymph nodes were observed in meso and omentum, one of which, larger, was polyploid, very vascularized, and was very attached to the wall of the cecum. The ileum was inflamed and edematous, and the appendix showed few inflammatory signs. Removal of the adenopathy, together with most of the satellites, and of the appendix was carried out.

Histopathological examination showed adenopathic conglomerate with granulomatous infiltration with central abscesses and presence of some eosinophils of infectious etiology; in

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Correspondence:
Carlos Sánchez Salguero, Head of Pediatric Allergy Unit, University Hospital Puerto Real (Cádiz), Spain, E-mail: libraygeminis@hotmail.com

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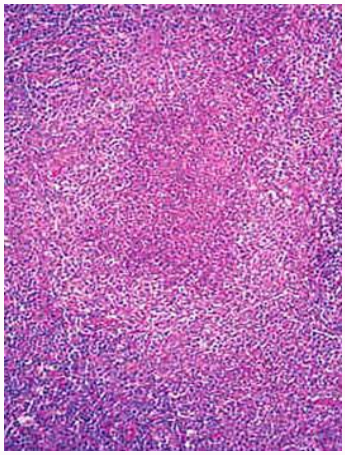

Figure 1: Granulomatous proliferation with central abscess.

addition, small Gram-negative pleomorphic microorganisms by the Warthin-Starry silver staining (Figure 1).

After the intervention, intravenous antibiotic treatment with amoxicillin-α-clavulanic and gentamicin was instituted. Fever and general malaise persist for 3 days, normalizing the hemogram and acute phase reactants. A serology was performed finding positive for *B. henselae* by means of indirect immunofluorescence techniques. The patient was discharged seven days after his admission to the hospital.

Discussion

Cat scratch disease has a low incidence. Classically, the criteria for diagnosis of this disease included: contact with companion animals, mainly small cats, existence of satellite regional lymphadenopathy at the site of inoculation, laboratory tests that rule out other etiologies, positive serological tests for *B. henselae*, and histology feature [1,4].

The clinical case presented is atypical because of the infrequency of its appearance in patients who have not had contact with cats or other domestic animals (1%). In addition, the existence of an inoculation point or regional lymph nodes is not observed, which makes the diagnosis more difficult [2,5,6].

Most atypical forms of cat scratch disease described in the literature consulted (comprehensive review in Medline) include hepatic, splenic, neurological, ocular, cardiac, hematological or osteolytic lesions; being exceptional to find clinical cases with abdominal lymphadenopathy [5,7-10]. It has been theorized that an alteration in cellular immunity may be the cause of the atypical form of the disease [7]; but in our patient, the immune study was normal.

There is no evidence on the usefulness of antibiotics for their treatment, since most patients do not present a significant affection, and spontaneous resolution is frequent. Therefore, immunocompetent patients with mild disease do not require treatment. Its use is reserved for immunosuppressed patients or with moderate or severe disease. Among the most commonly used antibiotics are erythromycin, doxycycline, rifampicin, cotrimoxazole, ciprofloxacin and gentamicin; Although in the most recent studies, azithromycin is recommended [1].

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