



Editorial Article

Bartonellosis. A Silent enemy. Difficult to diagnose in Certain Cases?

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Cat scratch disease (CSD) is an infectious, bacterial disease caused by *Bartonella henselae* that affects children and adults and is characterized, in most cases, by the subacute appearance of regional adenopathy that is usually self-limited. *B. henselae* is a difficult-to-culture gram-negative rod. Neuroretinitis is an inflammation of the neural retina and optic nerve. It was originally described by Leber in 1916 as a "stellate maculopathy", but this definition was challenged by Don Gass in 1977, citing that disc edema precedes macular exudates, however, until 1992 Dolan et al. Isolated *B. henselae* from lymphadenopathy in sick patients (1). More than 90% of patients report recent contact with a cat, and between 55 and 83% have a history of cat scratching. Young cats can have *B. henselae* bacteremia. Transmission between cats is through fleas as vectors. It has been suggested that fleas from cats may play an important role in the transmission of the disease, however, it appears that flea bites to humans are not a proven mechanism. Transmission from cat to man is almost always due to scratching and only very rarely is it caused by biting or licking. Although it can affect anyone, cases are more frequent in the young population, under 20 years of age, immunocompetent, so most of the time the disease has a benign and self-limited course (2). In adults, clinical suspicion is rare due to the pleomorphic nature of its presentation and it is considered a rare disease, which leads to multiple clinical evaluations, laboratory tests, and visits to different specialists. It represents a difficult diagnosis in the immunocompetent population, but it is even more difficult in the immunocompromised. In its classic form of presentation, the disease is characterized by the presence of regional lymphadenopathy, sometimes accompanied by fever for weeks to months of evolution. When obtaining the history, the presence of a red papule at the site of inoculation is reported (often associated with a cat scratch, which can precede lymphadenopathy by 10 to 14 days). The papule can last from three to ten days and progresses to a vesicle, and in some cases to a nodule. Lymphadenopathies can appear six to eight



weeks after inoculation, they are usually painful, on average 2 to 5 cm in diameter. The most frequently affected lymph node sites are those of the axillae, epicondyle, cervical, supraclavicular, and submandibular. With low frequency there is a systemic compromise, however, most will present fever. A high percentage of cases will resolve spontaneously in four to six weeks, but in some patients, it can persist for months. It has been described that it can manifest as fever of unknown origin of a long evolution in children and occasionally in adults (3). The differential diagnosis with other infectious diseases should include infections by *Staphylococcus aureus*, *Streptococcus* spp., Cervical abscesses of polymicrobial origin, virus of Epstein Barr, Cytomegalovirus, *Mycobacterium tuberculosis*, and Atypical *Mycobacteria*, *Toxoplasma gondii*, Human Immunodeficiency Virus, and *Actinomyces* spp (3). Because *Bartonella* species are difficult to culture, culture is not routinely recommended. Serology is the best initial test and can be performed by enzyme-linked immunosorbent assay or determination of IgG titers by immunofluorescence. Patients with the acute disease have titers equal to or greater than 1:256. Titres between 1:64 and 1: 256 are nonspecific, so if the suspicion persists, it is recommended to repeat the test 10 to 14 days later. Histopathology is not very specific and the bacillus can only be identified with Warthin–Starry stain. Detection by PCR is not yet standardized as a diagnostic test and has a low sensitivity (3). There is no consensus on the use of antibiotics as part of treatment. Most patients have a gradual resolution of symptoms even without treatment, so it has been suggested that antibiotics should not be used in benign forms. Some authors have found a shorter resolution of the disease, so the administration of azithromycin is recommended (4). Other antimicrobials that have also been used include rifampicin, doxycycline, ciprofloxacin, gentamicin, and trimethoprim/sulfamethoxazole. Cat scratch disease is an entity that is rarely diagnosed in our environment since in the immunocompetent population other entities are suspected before CSD. The suspicion associated with comorbidity with *Toxoplasma Gondii* is even more complex, as is the case presented by Silva et al. In this issue of the journal. Cases of *B. henselae* infections with ocular toxoplasmosis co-infection that cause neuroretinitis are scarce and great clinical care is required to diagnose them (5,6). Therefore, it is advisable to always keep in mind within the differential diagnosis, those diseases that are considered rare because we do not have reliable information in the absence of initial clinical improvement with adequate therapy.

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