Inguinal lymphadenopathy due to Bartonella henselae
Linfoadenopatia inguinale da Bartonella henselae

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INTRODUCTION

Bartonella henselae is a small Gram-negative bacillus which is harboured by young cats and kittens and is responsible for the great majority of cases of cat-scratch disease (CSD). CSD has many forms of clinical presentation, the most typical being a subacute, tender, regional lymphadenopathy, developing 2 weeks after being scratched or bitten by a carrier cat [1, 2]. The inoculation site (usually on the hands, arms, or chest) usually shows a primary granulomatous skin lesion 3 to 10 days after inoculation, before involvement of the regional lymph nodes becomes clinically apparent. The lymph nodes most commonly involved are the cervical and axillary lymph nodes, and usually only a single node is involved [3]. Regional lymphadenitis usually persists for three weeks or more [1, 3]. Inguinal localization is rarely described.

CASE REPORT

A 35-year-old Caucasian male complained of a painless right inguinal mass and slight fever. He reported that he had first noticed the mass one month before, but it had significantly enlarged and become mildly painful in the 2 weeks prior to his seeking medical advice. Clinical history was lacking in noteworthy previous clinical and epidemiological information. Physical examination revealed swelling of the right inguinal lymph nodes without pain. There was no erythema or drainage. Ultrasonographic evaluation confirmed three enlarged inguinal lymph nodes with irregular morphology and a dishomogeneous echographic structure (maximum size 2.9 x 2 cm). Laboratory examination showed ESR 42 mm/h, RCP 3.01 mg/dl and a normal white blood cell count. Blood cultures, urine cultural exams and skin tuberculin assay proved negative. As malignancy was suspected, the inguinal mass was excised. Histopathological examination showed an aspecific granulomatous process, with a predominant macrophage-lymphoid infiltrate and sparse giant and epithelioid cells; there was absence of recognizable bacteria, mycobacteria, fungi and protozoa. Then anti-Bartonella henselae antibodies were found (1: 320). The patient improved quickly using a symptomatic care (ibuprofen). Fever disappeared and inflammation indexes returned to normal values without the requirement of antibiotic treatment. Upon further questioning of our patient, he remembered that he had had frequent contacts with a puppy one month prior to the onset of inguinal lymphadenopathy.

DISCUSSION

In immunocompetent patients the most common clinical presentation of Bartonella henselae infection is CSD, a subacute, regional lymphadenitis, usually persisting for three weeks or more. Although this disease usually involves children and adolescents, it can occur at any age. Indeed, Ridder et al. have shown in their study that the mean age of patients was 33 years (range 4-89 years) [4]. As a consequence, CSD should always be included in the differential diagnosis of lymphadenopathy in adults [4, 5]. CSD may be strongly suspected on epidemiological and clinical grounds, and it is thus im-
Important that a meticulous personal history is obtained [6]. Unexpectedly, our patient reported only contact with a puppy. However, it should be borne in mind that although cats are the main reservoir for *Bartonella* spp also dogs can be infected. The role of dogs as a reservoir for this microorganism is less clear than for cats because domestic dogs are more likely to be accidental hosts, at least in non-tropical regions [7]. Moreover, Murano et al. report two patients as being infected after having contact with a dog [8]. It may therefore be helpful to remember that all pets represent a reservoir for human infection because most *Bartonella* spp infecting them are zoonotic [7]. It is important that a specific serological test and pathological examination of the lesions are carried out [6]. Antimicrobial chemotherapy of CSD is one of the most widely discussed and unresolved issues, including the need for possible selection and duration of treatment. If treatment seems clinically indicated, new macrolides, cotrimoxazole, rifampicin, fluoroquinolones and gentamicin might be the first-choice agents [9]. However for immunocompetent, otherwise healthy pediatric or adult patients often antibiotic treatment is not required because it is a benign disease and often resolves spontaneously [1, 9].

**Key words:** inguinal lymphadenopathy, *Bartonella* henselae, cat scratch disease.

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### SUMMARY

The bacterium *Bartonella henselae* causes cat scratch disease, a self-limited zoonotic disease which is common among children and adolescents. The most typical clinical presentation is a regional lymphadenopathy that commonly involves only a single node of cervical and axillary lymph nodes. Inguinal localization is rarely described. We report a case of a 35-year-old Caucasian male complaining of a painless right inguinal mass and slight fever. A diagnosis of *Bartonella henselae* infection was made according to the histopathological exam of the excised mass, that showed an inflammatory state likely due to *Bartonella*, and to the titre of antibodies for this agent. Cat scratch disease can occur at any age and may also involve inguinal lymph nodes. Therefore it should always be included in the differential diagnosis of lymphadenopathy for adults. It is important that a meticulous personal history is obtained and that a specific serological test and pathological examination of the lesions are carried out. Often antibiotic treatment is not required because it is a benign disease and often resolves spontaneously.

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### RIASSUNTO

*Bartonella henselae* causa la malattia da graffio di gatto, una zoonosi benigna e autolimitantesi, frequente nei bambini e negli adolescenti. Clinicamente è caratterizzata da una linfadenopatia regionale che comunemente coinvolge un singolo linfonodo dei distretti cervicali e addominocostali. Infrequentemente è stata descritta una localizzazione inguinale. Esponiamo il caso di un maschio caucasico di 35 anni con tumefazione linfonodale indolente in sede inguinale destra e febbribica. La diagnosi di infezione da *Bartonella henselae* è stata fatta mediante l’esame istologico da linfadenectomia inguinale che mostrava un quadro flogistico suggestivo, ed il titolo degli anticorpi anti-*Bartonella henselae*. Dopo terapia con ibuprofene si osservò rapido miglioramento clinico ed apressia. La malattia da graffio di gatto può manifestarsi ad ogni età e può coinvolgere anche i linfonodi inguinali. Pertanto, dovrebbe sempre essere presa in considerazione nella diagnosi differenziale delle linfadenopatie benigne e maligne dell’adulto. È importante raccogliere meticolosamente la storia clinica del paziente ed eseguire biopsia linfonodale e la ricerca di anticorpi anti-*Bartonella*. Un trattamento antibiotico spesso non è necessario e può essere sufficiente un trattamento sintomatico, trattandosi di una condizione assolutamente benigna ed autolimitantesi.
REFERENCES


