ondary complete AVB is usually transient,[2] resolving with antibiotic therapy in most cases.[3] Serology confirmed *Borrelia burgdorferi* infection with positive IgM and IgG, autoimmunity tests were negative and cardiac MRI was consistent with myocarditis; the main suspected diagnosis was therefore confirmed, maintaining the same treatment (Fig. 1D). After six days of treatment, the myocardial damage markers began to decrease, with progressive recovery of atrioventricular conduction and narrowing of the QRS, but the first-degree AVB persisted (Fig. 1B). After completing two weeks of treatment and given the patient's good progress and the resolution of his complete AVB, he was discharged on oral cefuroxime 750 mg every 12 h for two weeks, to complete the one-month course of treatment. At discharge, the patient had first-degree AVB with a PR interval of 202 ms (Fig. 1C). The patient was assessed one month later in the clinic, and was found to be asymptomatic. Electrocardiogram showed sinus rhythm with a PR interval of less than 200 ms, with no other changes.

Complete AVB occurs in 80%–90% of cases of Lyme carditis[1] and is an early cardiac manifestation. Due to the therapeutic implications of complete AVB, a high degree of suspicion is crucial,[4] and different scales can be used for this; the SILC score assigns points to six items: constitutional symptoms (2 points), activities in endemic areas/outdoors (1 point), being male (1 point), tick bite (3 points), age under 50 years (1 point) and erythema migrans (4 points). The patient in this case met the first five criteria, with a total of 8 points, and according to this scale, a high degree of suspicion should be considered from 7 points and above. It is important to order tests to make a differential diagnosis between the different causes of complete AVB in young patients, ruling out other infectious diseases (viral myocarditis, those caused by *Corynebacterium diphtheriae*, endocarditis with paravalvular abscess formation,[5] Chagas' disease[6] or Q fever), systemic diseases (sarcoidosis,[7] rheumatic fever,[8] ischaemic heart disease, infiltrative diseases [amyloidosis] and degenerative diseases [Lenegre's disease] and myotonic dystrophy).[9] Initial antibiotic therapy should be intravenous, and ceftriaxone 2 g/12 h for 14 days is recommended; if the response is good, this should be followed by oral treatment with doxycycline 100 mg/12 h, amoxicillin 500 mg/8 h or cefuroxime 500 mg/12 h.[1]

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Ester Minguez de la Guía*, Macarena López Vázquez, Pablo Miguel Valentín García, Miguel José Corbi Pascual

Servicio de Cardiología, Hospital General de Albacete, Albacete, Spain

* Corresponding author.
E-mail address: estermng18@gmail.com (E. Minguez de la Guía).

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Systemic bartonellosis with hepatosplenic granulomas

Bartonelosis sistémica con granulomas hepatoesplénicos

Systemic bartonellosis is an infection caused by the Gram-negative bacillus *Bartonella henselae*. The most common form of infection is locoregional. However, in some cases atypical and severe forms develop with visceral involvement that cause hepatosplenic granulomas.[1,2] We present two case reports.

The first case was a 69-year-old woman, with no previous medical history, who developed a fever of up to 39 °C and deterioration in her general condition. On questioning, the patient reported having a cat at home and she had skin lesions from scratches. Physical examination revealed skin lesions caused by scratching, no lymphadenopathy, and a painful abdomen with no organomegaly. Blood tests showed elevated C-reactive protein (CRP) of 60.8 mg/l, in addition to abnormal liver function tests: aspartate aminotransferase (AST) 103 U/l; alanine aminotransferase (ALT) 106 U/l; gamma-glutamyl transpeptidase (GGT) 201 U/l and alkaline phosphatase (AP) 327 U/l. Abdominal ultrasound, followed by a computerised tomography (CT) scan and then magnetic resonance imaging (MRI) revealed a normal-sized spleen with two focal lesions measuring 2.9 cm and 2 cm suggestive of abscesses (Fig. 1). Echocardiogram did not show images suggestive of vegetations. In microbiological tests, the serology was positive for *Bartonella henselae* IgM and IgG (with titres 1/256). She was started on a six-week course of antibiotic therapy with doxycycline and rifampicin. Three months later, a follow-up abdominal ultrasound showed the focal splenic lesions to have disappeared, which supported the diagnosis.

The second case was a 34-year-old woman, originally from Paraguay, with a relevant medical history of autoimmune disease involving a combination of rheumatoid arthritis and lupus (Rhupus) on treatment with methotrexate. The patient reported abdominal pain on her left flank for one month, weight loss of 7 kg, asthenia, night-time fever peaks and, in the last week, the addition of left retroauricular lymphadenopathy. She denied recent travel or contact with animals. On examination, left axillary and supraclavicular lymphadenopathy was detected and tenderness in the left hypochondriac region. Blood tests showed CRP 48.2 mg/l with abnormal liver function tests: AST 66 U/l, ALT 64 U/l, GGT 67 U/l and AP 193 U/l. Abdominal ultrasound and a CT scan of the neck-chest-abdomen revealed a 13.2-cm spleen with heterogeneous

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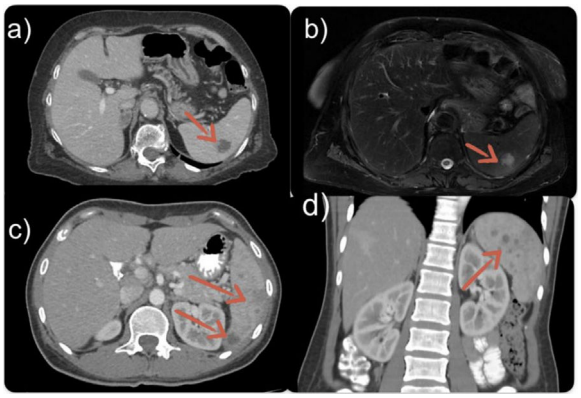

Figure 1. a) Case 1: Abdominal computerised tomography (CT), sagittal section. Hypodense splenic lesion; b) Case 1: Abdominal magnetic resonance imaging, T2-weighted sequence. Hyperintense splenic lesions with perilesional oedema; c) Case 2: Abdominal CT, sagittal section. Hypodense and heterogeneous splenic lesions; d) Case 2: Abdominal CT, coronal section. Hypodense and heterogeneous splenic lesions.

parenchyma with multiple focal lesions and bilateral periportal and axillary lymphadenopathy (Fig. 1). These were suspected to be splenic abscesses, but without being able to rule out lymphoproliferative syndrome. The imaging study was completed with echocardiogram, which revealed no vegetations. A core needle biopsy of the right axillary lymph node revealed epithelioid granulomatous lymphadenitis with focal necrosis, without evidence of lymphoma. Serology showed positive anti-*Bartonella henselae* IgM and nonspecific IgG antibodies, and the patient was started on treatment with rifampicin and azithromycin for two weeks. The follow-up CT scan after three months showed a notable decrease in the volume of the axillary lymphadenopathy with radiological improvement of the splenic lesions both in number and size and a decrease in the overall volume of the spleen.

The main reservoir of *B. henselae* is animals, particularly cats and their fleas.[1] Hepatosplenic involvement is rare, accounting for 5–25% of cases. Persistent fever, abdominal pain and weight loss are some of the main clinical manifestations of visceral involvement.[1] This condition should be considered within the differential diagnosis of fever of unknown origin.[2,3] It is common for blood tests to show abnormal liver function tests and elevated CRP.[2] In microbiological tests, serology is the technique that offers the best results with high sensitivity and specificity.[2,3] There is a possibility of cross-reactivity between *Bartonella*species, as well as with other microorganisms (*Treponema* spp, *Chlamydia* spp., *Mycoplasma* spp., *Coxiella* spp.). Identification would require culture or molecular techniques, which were not performed in the cases presented here, and *B. henselae* was assumed to be the most likely cause of the condition. Imaging tests show multiple focal lesions,[2,4] which, if biopsied, would correspond to necrotising granulomas.[1,2,5] With regard to treatment, although there is no clear consensus, azithromycin is usually recommended for five days.[6] However, in a clinical trial comparing azithromycin with placebo, no differences in clinical response were observed in the two groups.[7] Long courses, aminoglycosides or combinations are reserved for cases of endocarditis or involvement of other organs.[1,3,6]

Conflicts of interest

The authors declare that they have no conflicts of interest.

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Sara Rodríguez-Vega[a,*], Julio Noval Menéndez[b], Elena Criado Hevia[b], Diana Galiana Martín[b]

[a] *Servicio de Medicina Interna, Hospital de Jarrio, Asturias, Spain*
[b] *Servicio de Medicina Interna, Hospital Universitario de Cabueñes, Asturias, Spain*

* Corresponding author.
E-mail address: sararguezvega@gmail.com (S. Rodríguez-Vega).

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Probable breakthrough fungal infection in immunocompromised patient with isolation of an infrequent species

Probable infección fúngica de brecha en paciente inmunodeprimido con aislamiento de una especie infrecuente

This was a 70-year-old male patient diagnosed with R-ISS III light chain multiple myeloma with 1q gain in August 2021 after investigation of acute renal failure. He was started on first-line treatment with the bortezomib-lenalidomide-dexamethasone (VRd) regimen with lenalidomide adjusted to renal function for six cycles, achieving a very good partial response. After completing the six cycles, in May 2022 he received a melphalan-conditioned (140 mg/m^2) autologous haematopoietic stem cell transplant (AHSCT) as consolidation. Subsequently, maintenance therapy with VRd was prescribed starting in September 2022 and aciclovir as prophylaxis with periodic outpatient follow-up.

The patient was admitted in month +10 post-AHSCT in March 2023 with symptoms of dry cough, fever, chest pain and dyspnoea of several days' duration with a radiological diagnosis of bronchopneumonia. The analyses showed an increase in C-reactive protein (CRP) with a value of 22.77 mg/dl, creatinine of 2.4 mg/dl and