Single hypovascular focal splenic lesion from *Bartonella henselae* infection

Guido Menozzi · Valeria Maccabruni

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Cat scratch disease is an infectious disease caused by *Bartonella henselae* generally characterized by self-limited regional lymphadenopathy [1, 2]. Rarely a blood-borne disseminated infection develops with secondary visceral organ involvement [3, 4]. Indeed, isolated multinodular splenomegaly is a rare finding. Multiple lesions of the spleen are reported at computed tomography [5, 6], which after contrast injection remain low in attenuation or become isodense to surrounding tissue or may demonstrate marginal enhancement [7].

We report a case of *B. henselae* infection occurring in a 72-year-old female otherwise healthy patient without any known immunodeficiency. The patient was admitted to our hospital for fever. The gray scale abdominal sonography revealed a single hypoechoic focal lesion of the splenic upper portion, 45 mm in diameter; the spleen resulted normal in size. The focal splenic lesion resulted hypovascular in all the vascular phases at the contrast-enhanced ultrasound (CEUS) and at the magnetic reso-

nance examination (Figs. 1, 2). The patient had a kitten for a few months. The IgG serology resulted positive for *B. henselae* with a title of 1/1024, while the IgM tested negative. Criteria for the diagnosis of cat scratch diseases were satisfied [8] and the patient was treated with a 14-day course of azithromycin. The CEUS at the third month of follow-up demonstrated a shrinkage of the lesion and the patient was completely asymptomatic. The patient gave informed written consent for all the images examinations.

This is the first case of splenic involvement by *B. henselae* manifesting as a single wide hypovascular lesion. Therefore, not only in the case of multiple splenic lesions but even for a single hypovascular lesion, together with the clinical suspect of cat scratch disease, the serology for *B. henselae* and a close contact with cats should be investigated to avoid unnecessary invasive procedures since malignant causes are included in the differential diagnosis.

G. Menozzi (✉) · V. Maccabruni
Infectious Diseases, Azienda Ospedaliera ASMN-IRCCS,
Reggio Emilia, Italy
e-mail: pelikan128@gmail.com; menozzi.guido@asmn.re.it

V. Maccabruni
e-mail: maccabruni.valeria@ausl.re.it

Fig. 1 CEUS of the spleen; longitudinal view of the spleen. Evaluation at the third month of follow-up. The images are displayed on a split screen: on the *left-hand side* the CEUS in the venous phase (about 1 min after the intravenous injection and for some minutes) showing, in the upper portion of the spleen, a single hypovascular lesion with a longitudinal diameter of 20 mm. On the *right side* of the screen the gray scale images

Fig. 2 Magnetic resonance of the abdomen in the late phase after contrast injection. Evaluation at the onset. A single hypovascular lesion with a longitudinal diameter of 45 mm in the upper portion of the spleen is seen

Conflict of interest Guido Menozzi and Valeria Maccabrunio declare that they have no conflict of interest.

Ethical standards All experimentation (institutional and national) and with the Helsinki Declaration of 1975, as revised in 2000 (5). All patients provided written informed consent to enrolment in the study and to the inclusion in this article of information that could potentially lead to their identification.

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