Unexpected severe native aortic subacute endocarditis due to *Bartonella quintana* in a 40-year-old woman with good socioeconomic condition

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DESCRIPTION

We report a case of a severe *Bartonella quintana* endocarditis in a 40-year-old woman, with a history of moderate aortic regurgitation. She was employed in a private school, and had good socioeconomic condition. She reported of arthralgia and palpitation for a few months, neither symptoms of heart failure nor fever. A systematic transthoracic echocardiography was performed, followed by a transoesophageal echocardiography, which revealed a severe aortic regurgitation and a large aortic vegetation (20 mm, figure 1A, B). There were splenic and renal infarctions seen on CT scan. A parenteral combination of amoxicillin, oxacillin and gentamicin was started. A mechanical aortic valve replacement was performed in emergency, as the patient had a severe aortic regurgitation, a large vegetation >15 mm and systemic embolisms. An aortic valvular abscess was observed (figure 1C). The explanted valve and blood culture remained sterile. Thus, *Coxiella burnetii*, *Brucella* and *Bartonella* spp serologies were performed. *Bartonella* serology was positive (IgG=1/1024 and 1/2048 for *B. quintana* and *B. henselae*, respectively, N<1/256). Universal 16 s ribosomal RNA PCR was positive for *Bartonella* species on the excised valve, and specific *Bartonella* PCR detected *B. quintana* DNA (gene *ribC*). However, no body lice, no poor sanitary condition, no chronic alcoholic intoxication and HIV infection were

found. Doxycycline (100 mg/12 hours orally) was maintained for 4 weeks, with gentamicin for the first 2 weeks (3 mg/kg/12 hours). One year later, the patient is in good health condition, without the recurrence of endocarditis.

B. quintana must be systematically evoked in blood culture negative infective endocarditis, especially for homeless people,¹ even if usual risk factors are lacking, as reported here. Cross-reactivity among *Bartonella* species is common on serology. PCR testing has become an important diagnostic modality. *Bartonella* species attenuate the host's inflammatory response.² Thus, *Bartonella* endocarditis usually has a subacute presentation, and can be afebrile. However, it often requires surgical intervention due to severe valvular damage.³

Learning points

- ▶ *Bartonella* endocarditis must systematically be evoked in case of blood culture negative endocarditis, even when no known risk factors are present.
- ▶ It can be a subacute and afebrile illness.
- ▶ However, it can be a life-threatening disease causing severe valvular damage, requiring urgent cardiac surgery.

Figure 1 (A) Transthoracic echocardiography revealing an important aortic valve vegetation of 20 mm on the ventricular side. (B) Transoesophageal echocardiography showing aortic valve vegetation on the ventricular and aortic sides. (C) Per surgical view revealing an aortic valve abscess (black arrow), after valvular resection, between the non-coronary and the right coronary sigmoid.

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