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

Julien Saison,1,2 Brahim Harbaoui,3 Coralie Bouchiat,2,4 Matteo Pozzi,5 Tristan Ferry1,2,4

1Infectious and Tropical Disease Unit, Hôpital Croix-Rousse, Hospices Civils de Lyon, Lyon, France
2Université Claude Bernard Lyon 1, Lyon, France
3Cardiology Department, European Society of Hypertension Excellence Center, Hôpital de la Croix-Rousse, Hospices Civils de Lyon, Lyon, France
4Centre International de Recherche en Infectiologie, Centre CNRS U1111 (INSERM)—UMR5308, ENS de Lyon, UCBL1, Lyon, France
5Department of Cardiac Surgery, "Louis Pradel" Cardiologic Hospital, Hospices Civils de Lyon, Lyon, France

Correspondence to Dr Tristan Ferry, tristan.ferry@univ-lyon1.fr

Accepted 3 September 2016

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.
Acknowledgements  The authors acknowledge C Roure-Sobas who performed the serology.

Contributors  TF, JS, BH and MP participated in patient care and to the manuscript revision. CB significantly participated in patient care and performed the specific PCR for the diagnosis.

Competing interests  None declared.

Patient consent  Obtained.

Provenance and peer review  Not commissioned; externally peer reviewed.

REFERENCES