Introduction

Infective endocarditis (IE) is a serious condition associated with the high risk of morbidity and mortality. Moreover, it is still a great therapeutic challenge due to difficulties in diagnosis [1,2]. The estimated incidence of IE is 1.5 to 6 cases per 100,000 person-years in Europe and the USA [1]. Although positive blood cultures are a major diagnostic criteria for IE, blood culture negative endocarditis (BCNE) accounts for up to 35% of all cases of IE. BCNE cases are major problem of diagnosis and management of endocarditis patients. Previous antibiotic usage, suboptimal blood culture taking techniques, prolonged incubation time are common causes of BCNE.

For diagnosis of BCNE detailed patient history and carefully interview to screen the potential contact with animals are necessary. After than a complete examination to detect any accessible infectious focus is screened. Studies performed so far have shown that blood culture is not sufficient in infectious endocarditis management. We suggest that should be taken into account molecular and serological methods together with the patient history at the management the blood culture negative endocarditis.

Keywords: Haemoculture; Infective Endocarditis

Abstract

Infective endocarditis (IE) is a serious condition associated with the high risk of morbidity and mortality. Although positive blood cultures are a major diagnostic criteria for IE, blood culture negative endocarditis (BCNE) accounts for up to 35% of all cases of IE. BCNE cases are major problem of diagnosis and management of endocarditis patients. Previous antibiotic usage, suboptimal blood culture taking techniques, prolonged incubation time are common causes of BCNE.

For diagnosis of BCNE detailed patient history and carefully interview to screen the potential contact with animals are necessary. After than a complete examination to detect any accessible infectious focus is screened. Studies performed so far have shown that blood culture is not sufficient in infectious endocarditis management. We suggest that should be taken into account molecular and serological methods together with the patient history at the management the blood culture negative endocarditis.

Keywords: Haemoculture; Infective Endocarditis
Previous studies have demonstrated the role of \textit{C. burnetii}, but they could find no study that directly detected \textit{Bartonella} in BCNE [4]. On the other hand, Bekir Çelebi., \textit{et al.} [6], demonstrated that the isolation and identification of \textit{C. burnetii} by cell culture, molecular and serological methods from the heart valve of a patient with endocarditis and phase I and phase II variants by use the phase method.

In patients with BCNE with risk factors for \textit{Bartonella} (contact with cats), is recommended as a standard screening test [5]. Molecular analysis of valve tissues using real time PCR is also a contributive test for confirmation when early valve surgery is carried out [5].

Another cause of BCNE is \textit{Tropheryma whipplei}. Whipple’s disease is caused by \textit{Tropheryma whipplei} and causes a self-limiting gastrointestinal infection. The majority of the population is an asymptomatic carrier, however, in some patients, it causes an invasive infection such as endocarditis [7,8].

\textbf{Conclusion}

The automated IFA InoDiag multiplexed antigenic microarray test is a valuable tool for the rapid diagnosis of BCNE such as \textit{Coxiella burnetii}, \textit{Bartonella spp.}, \textit{Brucella melitensis} and \textit{Legionella pneumophila} [9-11]. For diagnosis of BCNE detailed patient history and carefully interview to screen the potential contact with animals are necessary. After than a complete examination to detect any accessible infectious focus is screened. Studies performed so far have shown that blood culture is not sufficient in infectious endocarditis management. It is important to carry out a PCR for diagnosis in heart valves removed [12,13]. We suggest that the factors we try to count above in blood culture negative endocarditis should be taken into account together with the patient history.

\textbf{Bibliography}


Is the Blood Culture Sufficient in the Diagnosis of Infective Endocarditis


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