

Enterococcus gallinarum Causing Native Valve Endocarditis

Teresa Dias¹, José de Almeida², Arsénio Santos¹, Rui M Santos¹, Armando Carvalho¹

¹Department of Internal Medicine, Centro Hospitalar e Universitário de Coimbra, Coimbra, Portugal

²Department of Cardiology, Centro Hospitalar e Universitário de Coimbra, Coimbra, Portugal

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ABSTRACT

Endocarditis due to *Enterococcus gallinarum* is a rare condition, usually affecting older patients. The most frequent source of infection is the gastrointestinal or genitourinary tracts; it frequently involves the aortic valve and tends to produce heart failure.

We present a case of *Enterococcus gallinarum* endocarditis developing on a normal native heart valve.

Enterococcus gallinarum is intrinsically resistant to vancomycin. Antibiotic susceptibility patterns indicate that most isolates are penicillin and ampicillin-susceptible.

LEARNING POINTS

- Endocarditis due to *Enterococcus gallinarum* is rare.
- *Enterococcus gallinarum* is intrinsically resistant to vancomycin.
- Most isolates are penicillin and ampicillin-susceptible.

KEYWORDS

Endocarditis, *Enterococcus gallinarum*, heart failure, antibiotic

INTRODUCTION

Enterococci are well established as being a cause of endocarditis and urinary tract infections. The most common species causing human infections are *Enterococcus faecalis* and *Enterococcus faecium*; the other species are rarely encountered in human clinical specimens^[1].

Enterococcus gallinarum is part of the normal stool flora of the general population^[2].

Endocarditis due to *Enterococcus gallinarum* is a rare clinical condition, usually affecting older patients. The most frequent source of infection is the gastrointestinal or genitourinary tracts; it frequently involves the aortic valve and tends to produce heart failure^[3-5].

CASE DESCRIPTION

A 77-year-old woman was hospitalised with a 1-week history of progressive dyspnoea, orthopnoea, cough and lower limb oedema. The patient had prior known history of arterial hypertension.

On physical examination the patient was febrile (38.5°C), polypnoeic, tachycardic and had a peripheral oxygen saturation of 88% on air, while cardiac and pulmonary auscultation revealed a 2/6 pansystolic murmur loudest at the apex and bilateral pulmonary crackles. The patient also showed lower limb oedema.

The laboratory examination revealed PCR at 5.86 mg/dl, without leukocytosis, K⁺ at 3.1 mmol/L and BNP at 1790 pg/ml. A chest X-ray showed pulmonary venous congestion and cardiomegaly.

A transthoracic echocardiogram showed moderate to severe aortic and mitral regurgitation and vegetations with valvular destruction. The combination of vancomycin and gentamicin was started for presumably infective endocarditis. Three days later, the patient required mechanical ventilation because of heart failure. As *Enterococcus gallinarum* was isolated from 2 blood cultures, gentamicin was switched to ampicillin. Surgery was not considered because of the patient's general condition, and she died 1 month later.

DISCUSSION

Enterococcus gallinarum endocarditis is rare and, to our knowledge, this is the first report in Portugal.

Clinicians should be aware of the possibility of serious complications arising from this uncommon source of endocarditis, as early surgical management is often required for favourable outcomes^[3].

Enterococcus gallinarum is intrinsically resistant to vancomycin. Antibiotic susceptibility patterns indicate that most isolates are penicillin and ampicillin-susceptible^[4]. Clinicians need to be alerted to the possibility that vancomycin may not be effective against *Enterococcus gallinarum*, despite in vitro results that indicate vancomycin susceptibility.

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