

Case report:

58-years-old male, with medical history of arterial hypertension, hepatitis C virus and epilepsy, presented to the Emergency Department with a 10-days history of **intermittent subfebrile temperature and cold symptoms**. Gradually he also presented **progressive dypnea** at rest the last 48 hours. He did not present chest pain.

His general appearance was good. He presented tachypneic breathing at rest with 22 bpm and blood oxygen saturation of 92% with Ventimask 35%. He was hemodynamically stable.

Auscultation: unknown systolic and diastolic murmur best heard at aortic valve area, and bibasilar pulmonary crackles at the chest auscultation. Engorgement of jugular veins and lower limbs edema without other findings.

Tests results: The chest X-ray showed **bilateral interstitial edema**. The first ECG revealed sinus rhythm, **first-degree atrioventricular block** and **left bundle branch block** that didn't appear in previous ECG. White-cell count: Leukocytosis (20700/mm³). Other significant results: Metabolic acidosis, Lactate 4'7mmol/L, cardiac Troponin T 351'1ng/L and B-type natriuretic peptide >35.000.

Monitoring the patient we observed a **complete atrioventricular block** and a **right bundle branch block**. In the face of these findings we notified to the on-call Cardiologist. He performed an echocardiography with the VSCAN that showed a **vegetation on a thickened aortic valve**, severe aortic insufficiency, moderate mitral insufficiency and a suggestive image of an **aortic valve ring abscess**.

We had at this point a high suspicion of **infective endocarditis** with an important aortic valve affection so he was admitted to the Intensive Care Unit (ICU). There he suffered an important hemodynamic descompensation with breathing workload requiring **endotracheal intubation** despite of he was using non-invasive ventilation and other ICU life supports. He was treated with ampicillin, cloxacillin and gentamicin. The transesophageal echocardiography confirmed native valve infective endocarditis.

He was transferred to the main cardiovascular surgical center. In the operating theatre the patient suffered an atrioventricular dissociation that resulted in **intraoperative death**.

Blood culture were positive to *S. mitis/oralis*

Conclusions:

Infective endocarditis is a rare disease with a high morbidity and mortality despite the advances in its diagnosis and treatment.

It is crucial establishing a **suspicion diagnosis** because this pathology may be presented with such many different non-specific symptoms.

Echocardiography is the gold standard method in monitoring and diagnosing infective endocarditis, specially transesophageal echocardiography, with a high sensitivity and specificity.

Cardiac conduction abnormalities (atrioventricular block or bundle branch block) are infrequent infective endocarditis complications and present severe adverse prognosis. They have been associated to perivalvular affection too.

In our case, detecting a new cardiac murmur and the electrocardiographic abnormalities led us to think in acute cardiac pathology. In an appropriate context a clinical suspicion of infective endocarditis must be established. It is quite outstanding that initially our patient presented to the emergency department showing **apparently banal pathology**. However, a quick adverse evolution led him to death in a few hours from his arrival to the hospital.

This shows once again the great importance of a correct anamnesis and physical examination in the emergency department in the face of non-specific clinical cases.

