Polymicrobial endocarditis: Chronic Q fever and Enterococcus faecalis coinfection

Endocarditis polimicrobiana: coinfección por Fiebre Q crónica y Enterococcus faecalis

Sr. Director:

Infective endocarditis (IE) is a frequent clinical entity with high morbidity and mortality rates. Most of them are due to a single gram-positive microorganism bacteraemia, with very few cases reported in the literature of polymicrobial endocarditis.

We present the case of a 91-year-old male with a personal history of tuberculosis in youth, duodenal ulcer, long lasting hypertension, atrial fibrillation under oral anticoagulation treatment and nephroangioclerotic chronic renal failure with creatinine clearance close to 35 mL/min. He had two previous biological mitral valve replacements in 1987 and 2001 due to rheumatic disease. In March 2012 the patient was first admitted because of fever lasting for 2 months with anaemia and asthma. Enterococcus faecalis blood stream infection was detected and treatment with ampicillin and ceftriaxone was started and prolonged for 25 days. Transesophageal echocardiogram (TEE) showed prosthetic mitral valve without stenosis or insufficiency and no lesions suggestive of IE. Colonooscopy was normal. Fifteen days after discharge, fever and asthma reappeared and the patient was re-admitted. On second admission the patient was febrile (38 °C) without overt sepsis data, and a new V/VI mitral holosystolic murmur that became louder with inspiration was noted, with the remainder of the examination unremarkable. New TEE revealed an echodense mobile structure attached to the mitral valve as well as severe mitral regurgitation, consistent with IE. Laboratory test showed haemoglobin 10.4 g/L, white blood cell count 10,400 cells/mL with 74% granulocytes, CRP 41 mg/dL; and normal cardiac enzymes, creatinine, sodium and potassium. Chest X-ray showed an increased cardiothoracic index with no pleural effusion or consolidation. E. faecalis was again isolated in repeated blood cultures, and daptomycin (10 mg/kg/day) with ampicillin (2 g/6 h) was started, since previous ceftriaxone treatment had produced biliary sludge with slight pancreatic reaction. Aminoglycosides were avoided due to renal toxicity. As per protocol, serologies for other causes of IE were performed, and Coxiella burnetti IgG antibodies were found positive at high titres (phase I 1/81920 and phase II 1/10240). As this result was repeated and confirmed in laboratory, specific treatment was started with doxycycline (100 mg/12 h) and hydroxychloroquine (200 mg/8 h). Early valve replacement surgery was performed. E. faecalis was isolated again in all tissue samples and in situ polymerase chain reaction for C. burnetti also confirmed implication of this pathogen. The patient, after surgery and 6 weeks of intravenous treatment, remained asymptomatic for fever and heart failure and was discharged home. Nowadays he is still taking doxycycline and hydroxychloroquine prescribed indefinitely, and control serologies titres, four months after hospitalization, have decreased significantly (phase I 1/5120 and phase II 1/10240). Valvular replacement together with appropriate antimicrobial treatment has led him to get over this life-threatening entity.

Polymicrobial endocarditis is uncommon and has been previously described in patients with risk factors such as prolonged intravenous infusion, intravenous drug users or previous surgeries, or fungi or gram-negative bacilli, in any combination, cause most of the polymicrobial IE. A recent French prospective study of 497 patients with IE only found 9 cases with more than one microorganism etiologically implicated.

C. burnetti, an intracellular gram negative bacillus, is the causative agent of Q fever. Infectious endocarditis due to C. burnetti is the most threatening and unusual clinical expression of its illness spectrum. Its frequency ranges between 3.2% and 48% of blood-culture-negative IE. Recognised risk factors for C. burnetti IE are pre-existing valvular disease, prosthetic valves and immunodepression.

Enterococci can cause urinary tract infections, bacteraemia and endocarditis. Enterococcus is involved as a single agent in 10.5% of cases of native valve IE, and 16.3% in prosthetic valve IE, more frequently found in the presence of valve abnormalities, neoplasia or surgery. E. faecalis remains predominant.

Our hypothesis is that chronic, oligosymptomatic, Q fever endocarditis generated valve damage and posteriorly was superinfectected by E. faecalis. We suggest to perform C. burnetti serology, despite positive blood culture endocarditis,
in the adequate epidemiological setting, to rule out this combination.

Bibliografía


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Lumbalgia en los pacientes con vértebra limbus

Low back pain in patients with limbus vertebra

Sr. Director:

La vértebra limbus descrita por primera vez por Schmorl en 1927, consiste en un defecto oseo que afecta al margen de los cuerpos vertebrales. El fragmento desprendido tiene una morfología triangular y bordes escleróticos (fig. 1). La localización más frecuente es la columna lumbar y el lugar de afectación predominante es el ángulo anterosuperior, seguido del anteroinferior 2. La vértebra limbus de localización posterior puede ser causa de compresión neural y suele precisar tratamiento quirúrgico 1.

Hemos atendido a 3 pacientes de entre 18 y 20 años, que presentaban lumbalgia mecánica crónica de larga evolución. A pesar de seguir tratamiento analgésico y miorrelajante, el dolor lumbar persistió en los 3 enfermos, por lo que se realizó un estudio radiológico. Todos ellos presentaron una vértebra limbus en la cuarta vértebra lumbar (fig. 1).

La patogenia de la vértebra limbus es objeto de controversia: la mayoría de los autores sostienen que es una herniación del disco dentro del cuerpo vertebral 4, tal vez por traumatismos agudos o repetidos y/o práctica de ciertos deportes en periodos de crecimiento 5, 6.

La vértebra limbus ha sido relativamente poco estudiada; existe poca bibliografía y no hemos encontrado descrita su prevalencia en la población asintomática. Para la mayoría de los autores la vértebra limbus es asintomática y se encuentra como hallazgo incidental en un estudio de imagen; por

Figura 1 Radiografía lateral de columna lumbar de un paciente con lumbalgia mecánica crónica y vértebra limbus. Se aprecia un fragmento triangular, localizado en la esquina anteroinferior del cuerpo vertebral (flecha blanca), con esclerosis en los márgenes y del cuerpo vertebral adyacente.