Septic Embolism with Ischemia and Finger Necrosis in Patient Admitted with Infective Aortic Valve Endocarditis

Mauro de Deus Passos¹,², Roseanne de Fátima Ramos Almeida³,⁴,⁵
Hospital Universitário de Brasília¹, Brasília, DF; DIAGNOSIS - Diagnóstico por Imagem², Formosa, GO; Instituto de Doenças Cardiovasculares (IDC)³, Instituto de Cardiologia do Lago (Cardiolago)⁴, Echodiagnose (Hospital Santa Lucia)⁵, Brasília, DF – Brazil

Male 58-year-old patient reporting progressive dyspnea. On physical examination, presence of diastolic murmur III/VI in the aortic focus and hyperemia spots (Janeway) — white arrow — and necrosis of the fingertips of the left fourth and fifth fingers (black arrow) (Figure 1).

Patient denied history of fever. There was no growth of any aerobic and anaerobic germs in the blood cultures. Transthoracic echocardiogram (Figure 2) showed left ventricular diastolic diameter of 76 mm, eccentric left ventricular hypertrophy (13 mm), fraction ejection at 65.2%, and extensive mobile vegetation attached to the aortic valve promoting severe aortic valve insufficiency. Surgical debridement of the necrotic areas of the fingers was required. The collected material was negative for bacteria and fungi. Submitted to aortic valve replacement with metal prosthesis, the patient presented good postoperative outcome. The findings presented in Figure 1, along with cardiac auscultation, further reinforce the importance of physical examination in the diagnosis of cardiovascular diseases. Figure 2 shows that the echocardiogram, even with all the technological progress, is essential for diagnosing infective endocarditis and its complications.

Authors’ contributions

Research creation and design: Passos MD, Almeida RFR; Data acquisition: Passos MD, Almeida RFR; Data analysis and interpretation: Passos MD, Almeida RFR; Critical revision of the manuscript for important intellectual content: Passos MD, Almeida RFR.

Potential Conflicts of Interest

There are no relevant conflicts of interest.

Sources of Funding

This study had no external funding sources.

Academic Association

This study is not associated with any graduate program.

Keywords

Aortic valve/surgery; Endocarditis, Bacterial; Hand Injuries/complications; Echocardiography.
Figure 1 – Janeway spots (white arrows) and necrosis of fingertips (black arrows), resulting from septic emboli, causing ischemia and necrosis.

Figure 2 – Transthoracic echocardiogram (parasternal long-axis): extensive vegetation attached to the aortic valve.