

Cardiac Imaging for Overlap Connective Tissue Disease Myocarditis

Imagem Cardíaca de Sobreposição de Miocardite em Doença do Tecido Conjuntivo

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A 66-year-old woman with systemic lupus erythematosus and rheumatoid arthritis was admitted with progressive dyspnea and congestive heart failure. She had a previous diagnosis of severe aortic regurgitation with normal left ventricular (LV) function. There were no clinical signs of infection or leukocytosis and normal sinus rhythm was present on admission.

Transthoracic echocardiography revealed diffuse LV hypokinesis and an ejection fraction of 39%, which had been 72% three months earlier. Myocarditis was suspected since there was no evidence of worsening or new valvular dysfunction. Positron emission tomography with 2-deoxy-2-[fluorine-18]fluoro- D-glucose integrated with computed tomography demonstrated diffuse myocardial uptake without evidence of aortic involvement, suggesting active myocarditis (Figure 1A, B). Cardiac magnetic resonance imaging supported the diagnosis with a heterogeneous mesocardial fibrosis pattern

comprising approximately 20% of the LV mass (Figure 1C). The patient was treated with methylprednisolone and cyclophosphamide and had a satisfactory clinical recovery.

Author contributions

Study conception and design: Ferreira RM; data collection: Neto HS, Siciliano APR; data analysis and interpretation: Ferreira RM, Borges JCS, Bica BERG;

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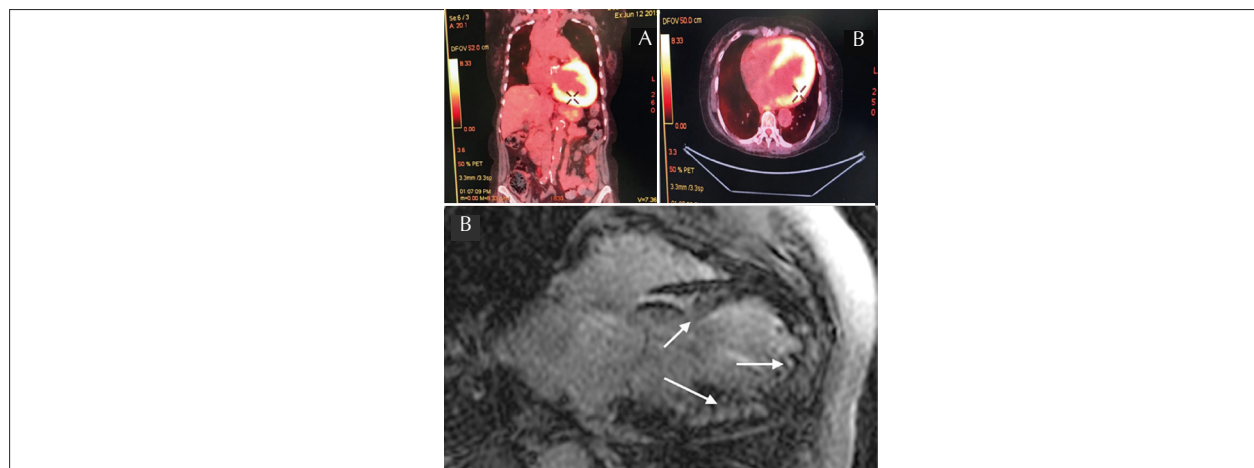


Figure 1 – Active myocarditis associated with an overlap of systemic lupus erythematosus and rheumatoid arthritis. (A,B) Diffuse left ventricular myocardial uptake on Positron emission tomography with 2-deoxy-2-[fluorine-18]fluoro- D-glucose integrated with computed tomography. (C) Heterogeneous left ventricular mesocardial fibrosis on magnetic resonance imaging (arrows).

Keywords

Lupus Erythematosus, Systemic; Myocarditis; Positron Emission Tomography.

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