Left atrial impression due to lymphadenopathy in an HIV seropositive patient infected with tuberculosis

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We describe a unique case of a 37-year-old patient who was diagnosed with human immunodeficiency virus/tuberculosis co-infection due to a cardiac involvement that consisted in atrial fibrillation as a consequence of a compression of the left atrium by a giant necrotic lymphadenopathy and a pericardial effusion.

Keywords
Left atrial impression • Lymphadenopathy • HIV/TB coinfection

A 37-year-old patient with irregular heart rhythm, dyspnoea, reduced exercise tolerance, and fatigue was admitted in our department for further investigation.

His past medical history was unremarkable. Electrocardiography revealed an atrial fibrillation. Chest X-ray demonstrated a heart enlargement without any sign of pulmonary disease.

Transthoracic echocardiography (TTE) revealed what appeared to be a compression of the left atrium by an extra-cardiac structure with an anatomical deformation of the atrium (Panel A) but without haemodynamic effect. A small pericardial effusion without signs of tamponade was also detected.

An additional transoesophageal echocardiography demonstrated a large inhomogeneous mass, 3 cm in diameter, which occupied one-half of the left atrium (Panels B and C).

To further characterize, the impressing mass and to have more insights into its origin, a computed tomography scan was performed, which proved that the mass consisted in a lymphadenopathy (Panel D) of unknown origin so far.

A lymph node fragment obtained by biopsy via mediastinoscopy showed anatomopathological characteristics of tuberculosis (TB).

A concomitant human immunodeficiency virus (HIV) infection was found at the blood sample which explained the lymph node involvement which is common among patients with HIV/TB coinfection.

Follow-up echocardiography after 1 month of specific antituberculosis treatment revealed a complete resolution of the mass and of the pericardial effusion.

Compression of the left atrium by extra-cardiac structures is a rare cause of atrial fibrillation, dyspnoea, and reduced exercise tolerance. The TTE was a major diagnosis tool in this case.