

IMAGE IN CARDIOLOGY

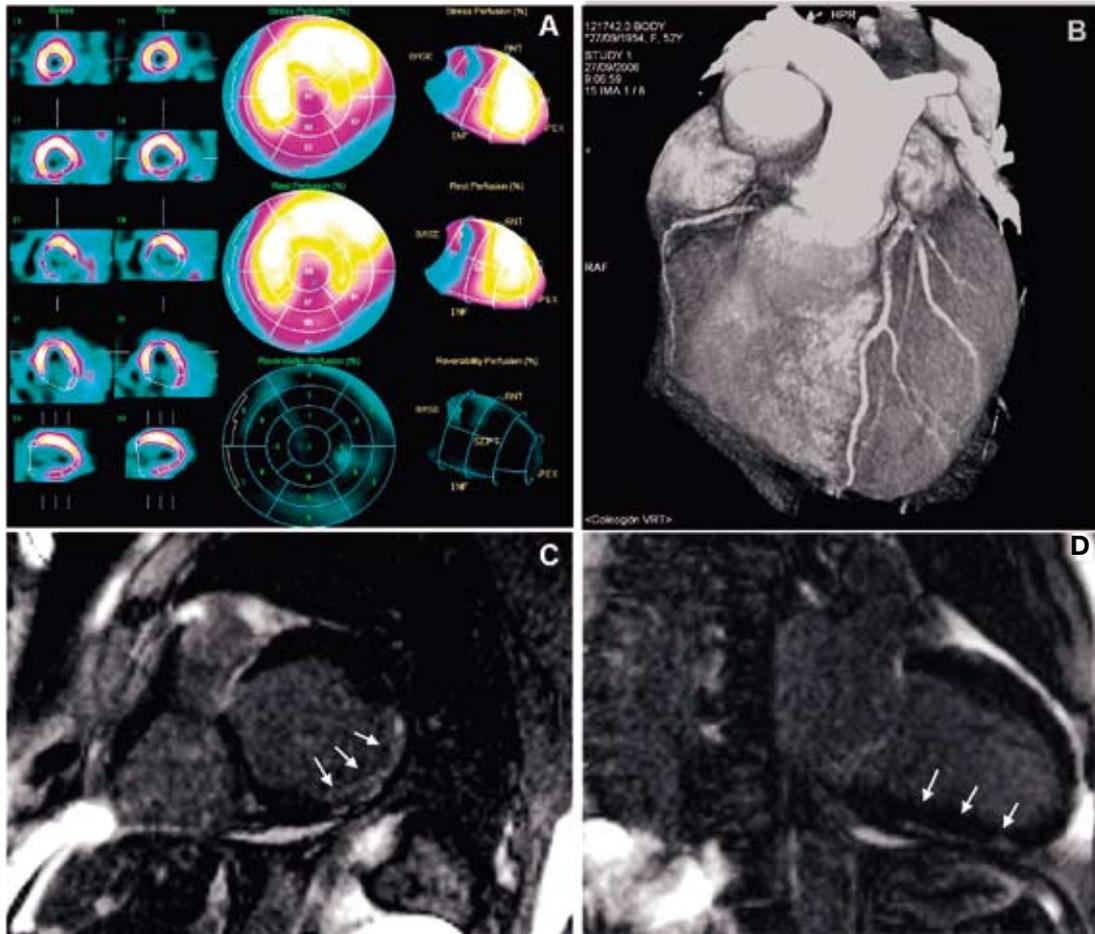


Figure.

Imaging Techniques in Chagas Disease

Cardiac involvement is the most serious complication of Chagas disease. The new, noninvasive imaging techniques have extended the diagnostic options in this condition. Computed tomography (CT) coronary angiography enables a coronary etiology to be ruled out, and detection of myocardial fibrosis by cardiac magnetic resonance imaging (CMRI) with late gadolinium enhancement is a proven marker of subclinical involvement with prognostic value, showing an inverse correlation with the ejection fraction (EF). Development of fibrosis predominates in territories of distal circulation, particularly the inferolateral regions. We present the case of a 52-year-old patient from Peru with hypertension and dyslipidemia who had a history of palpitations and progressively increasing dyspnea. The electrocardiogram showed sinus rhythm with left anterior hemiblock and right bundle branch block. Echocardiography revealed a dilated left ventricle (LV) and EF of 24%. Based on a diagnosis of dilated cardiomyopathy of uncertain

etiology and considering the risk factors, single-photon emission CT (SPECT) was performed. The results were clinically and electrically negative for ischemia, and showed a fixed inferior defect (Figure, A). A noninvasive approach with CT and CMRI was used to investigate the perfusion defect. Coronary disease was ruled out (Figure, B) and fibrosis was detected in the affected territory (Figures, C and D). These tests enabled a suspected diagnosis of Chagas disease to be established, which was confirmed by positive serology for *Trypanosoma cruzi*. This case illustrates the usefulness of noninvasive imaging techniques in cardiac involvement by Chagas disease and provides a new diagnostic and prognostic approach to consider in the clinical management of this condition.

Patricia Mahía,^a Víctor Pineda,^b and Hug Cuéllar^b

^aServicio de Cardiología, Hospital Universitario Vall d'Hebron, Barcelona, Spain

^bServicio de Radiología, Hospital Universitario Vall d'Hebron, Barcelona, Spain