Massive Left Ventricular Calcification: Related to Endomyocardial Fibrosis or Idiopathic?

Calcificación masiva del ventrículo izquierdo: ¿relacionada con la fibrosis endomiocárdica o idiopática?

To the Editor,

In a recent issue of Revista Española de Cardiología, Flores-Ríos et al. briefly reported the case of a 66-year-old woman with massive left ventricular calcification and concluded that the underlying cardiac disease was endomyocardial fibrosis. However, we consider that their conclusion is questionable.

Endomyocardial fibrosis is a restrictive cardiomyopathy of unknown etiology that occurs almost exclusively in tropical and subtropical regions, particularly in some countries of Africa, India, and Brazil. The disease is characterized by irregular fibrous thickening of the endocardium in the apex and inflow tract of one or both ventricles. Superimposed thrombosis and endocardial calcification is common in advanced cases. Partial or total obliteration of the apical region of the ventricular cavities leads to diastolic dysfunction. Echocardiography and, more recently, magnetic resonance imaging can demonstrate the typical lesions and constitute the most valuable techniques to confirm the diagnosis.

Endomyocardial biopsy is useful only in the putative acute-subacute phase of the disease, when endomyocardial inflammation containing degranulated eosinophils and thrombosis would be present. In the reported case, the patient showed mild systolic, not diastolic, dysfunction and the massive calcification was located mainly in the myocardium. No ventricular apical obliteration was reported on echocardiography. An endomyocardial biopsy showed nonspecific findings, i.e., cardiomyocyte hypertrophy and endomyocardial fibrosis bands. Therefore, the diagnosis of endomyocardial fibrosis lacks consistency.

Tissue calcification can be metastatic or dystrophic. Metastatic calcification occurs in normal tissue due to hypercalcemia; we have no data about the serum calcium levels of the reported patient. Dystrophic calcification of the myocardium is secondary to tissue necrosis and has been reported in several conditions such as myocardial infarction, myocarditis, idiopathic mitral annular calcification, and endomyocardial fibrosis.

In conclusion, although endomyocardial fibrosis could be a possibility, on the basis of the reported data, we consider that there are no definite criteria for this specific diagnosis and that the massive left ventricular calcification in the patient should be considered of unknown etiology.

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