

Josep Lupón,^{a,b} Beatriz González,^a Mar Domingo,^{a,*} and Antoni Bayes-Genis^{a,b}

^aUnitat d'Insuficiència Cardíaca, Hospital Universitari Germans Trias i Pujol, Badalona, Barcelona, Spain

^bDepartament de Medicina, Universitat Autònoma de Barcelona, Barcelona, Spain

* Corresponding author:

E-mail address: madote@gmail.com (M. Domingo).

Available online 13 December 2013

REFERENCE

1. González B, Cabanes R, Cano L, Domingo M, Lupón J, Bayes-Genis A. Análisis de la demanda telefónica en una unidad de insuficiencia cardíaca: motivos de consulta y utilización de recursos. *Rev Esp Cardiol.* 2013;66:914–5.

SEE RELATED ARTICLE:

<http://dx.doi.org/10.1016/j.rec.2013.09.013>

<http://dx.doi.org/10.1016/j.rec.2013.10.001>

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 al¹ 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.² Echocardiography and, more recently, magnetic resonance imaging can demonstrate the typical lesions and constitute the most valuable techniques to confirm the diagnosis.³ 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.⁴

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, ie, 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.⁵

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.

Luiz A. Benvenuti* and Vera M.C. Salemi

Heart Institute (InCor), University of São Paulo Medical School, São Paulo, Brazil

* Corresponding author:

E-mail address: anpluiz@incor.usp.br (L.A. Benvenuti).

Available online 22 December 2013

REFERENCES

1. Flores-Ríos X, Piñóm-Esteban P, Castro-Beiras A. Fibrosis endomiocárdica con masiva calcificación del ventrículo izquierdo. *Rev Esp Cardiol.* 2013; 66:742.
2. Iglezias SD, Benvenuti LA, Calabrese F, Salemi VM, Silva AM, Carturan E, et al. Endomyocardial fibrosis: pathological and molecular findings of surgically resected ventricular endomyocardium. *Virchow Arch.* 2008;453:233–41.
3. Salemi VM, Rochitte CE, Shiozaki AA, Andrade JM, Parga JR, De Ávila LF, et al. Late gadolinium enhancement magnetic resonance imaging in the diagnosis and prognosis of endomyocardial fibrosis. *Circ Cardiovasc Imaging.* 2011;4:304–11.
4. Leone O, Veinot JP, Angelini A, Baandrup UT, Basso C, Berry G, et al. 2011 Consensus statement on endomyocardial biopsy from the Association for European Cardiovascular Pathology and the Society for Cardiovascular Pathology. 2012;21:245–74.
5. Shackley BS, Nguyen TP, Shivkumar K, Finn PJ, Fishbein MC. Idiopathic massive myocardial calcification: a case report and review of the literature. *Cardiovasc Pathol.* 2011;20:e79–83.

SEE RELATED ARTICLES:

<http://dx.doi.org/10.1016/j.rec.2013.10.005>

<http://dx.doi.org/10.1016/j.rec.2011.11.017>

<http://dx.doi.org/10.1016/j.rec.2013.09.016>