

## Mitral Valve Prolapse is a Frequent Cardiovascular Finding in Patients With Anorexia Nervosa

### To the Editor:

I read with interest the recent article on cardiac disorders in young women with anorexia nervosa by Vázquez et al.<sup>1</sup> I was surprised, however, that the authors made no mention of mitral valve prolapse. The association of mitral valve prolapse with anorexia nervosa has been known for a long time.<sup>2-9</sup>

Taking into account the pathophysiology of mitral valve prolapse makes it easy to understand this frequent finding. According to the valvular-ventricular disproportion theory<sup>10,11</sup> mitral valve prolapse results from either excessive mitral valve tissue or inadequate left ventricular cavity size. Left ventricular cavity size is reduced in anorexia nervosa.<sup>12</sup> The finding that mitral valve prolapse disappeared in patients with anorexia nervosa after they received appropriate therapy and gained weight but recurred during follow-up in those patients who lost weight again<sup>2</sup> is further support to this theory. Aggressive nutritional replenishment or even forced feeding is therefore important for the management of patients with anorexia nervosa, not only for the anorexia itself but also for the associated mitral valve prolapse.<sup>3</sup>

One of the complications of mitral valve prolapse is sudden death,<sup>11,13</sup> therefore mitral valve prolapse may play a role in sudden death in some patients with anorexia nervosa. Although sudden death in anorexia nervosa may be due to prolonged QT interval and QT dispersion as Vázquez et al<sup>1</sup> suggested, it may also be secondary to the associated

mitral valve prolapse.<sup>11,14-18</sup> Therefore, if for no other reason than to prevent mitral valve prolapse and sudden death, the therapeutic efforts in anorexia nervosa should be concentrated on those that result in weight gain.<sup>4</sup>

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## Response

### To the Editor:

We read with interest the letter by Dr Cheng dealing with our article<sup>1</sup> in REVISTA ESPAÑOLA DE CARDIOLOGÍA, and thank him for his observations regarding the association between mitral valve prolapse and anorexia nervosa. We appreciate his comments and wish to clarify a few points with regard to our own observations.

Mitral valve prolapse is frequent, with a prevalence of 0.6% to 2.4% in the general population,<sup>2</sup> and between 33% and 62% in patients with anorexia nervosa.<sup>3,4</sup> The differences in prevalence may be influenced by the clinical and echocardiographic criteria used to diagnose the disorder. In our study, mitral valve prolapse was present in 7 (23.3%) of the patients examined by echocardiography, versus 1 patient (3.3%) in the group of normal control subjects. In all cases the prolapse was mild and clinically asymptomatic. A 24-hour Holter recording disclosed infrequent, isolated supraventricular premature beats in 3 patients, and isolated ventricular premature beats in 1 patient.

Anorexia nervosa is a potentially fatal disease with an annual mortality of 0.56%, i.e., more than 12 times the mortality in young women in the general population. It is estimated that approximately one-third of the patients with anorexia die of cardiac causes, mainly sudden death.<sup>5</sup> We agree with Cheng<sup>6</sup> that the causes of sudden death in these patients may be associated with prolonged QT interval, increased QT interval dispersion, or mitral valve prolapse. Appropriate

treatment, together with improvements in nutritional status, can not only improve mitral valve function, but also ameliorate the alterations in different cardiac parameters.<sup>7</sup>

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