# Cardiopulmonary Resuscitation Preferences Among Hospitalized Heart Failure Patients

## To the Editor:

We read with interest the article by Crespo and Paniagua<sup>1</sup> entitled "Management of Advanced or Refractory Heart Failure." We were particularly interested in the section on management of the terminal patient and, more especially, the

part dealing with the wishes of the patient concerning whether or not to undertake resuscitation measures. The authors seem to be in favor of resuscitation measures in most (77%) patients who are admitted for advanced heart failure. They base their opinion mainly on a study undertaken in an Anglo-Saxon setting.<sup>2</sup>

We have been involved in this line of investigation for many years now<sup>3-5</sup> and are in a position to provide the data from a recent survey which we undertook in Spain. One of the sections in this survey was designed to evaluate the preferences regarding resuscitation shown by patients admitted for decompensated heart failure.<sup>6</sup> The survey, undertaken at the time of discharge from the Hospital Universitario de Bellvitge, involved a total of 80 patients (58% women) with a mean age of 79±8.7 years, who had been admitted for decompensated heart failure. The study was approved by the hospital ethics committee and all the patients involved gave conformed consent to participate in the study.

The patients were asked the following question regarding their wishes about resuscitation: "Your situation regarding your disease is now stable, but anybody's heart can cease to function at any time. As you are no doubt aware, if the heart stops suddenly, the possibility exists that a team of physicians can begin cardiopulmonary resuscitation, which can at times include being connected to a machine in order to breathe. Bearing in mind your disease and your current quality of 5, and if it came to that situation, would you or wouldn't you ask the physicians to attempt resuscitation (Yes/No)." The patients were also asked about their quality of life, based on a scale of five points (excellent, very good, good, fair, or poor).<sup>2</sup> A total of 32 patients (40%) stated that they preferred not to receive any resuscitation measures in the event that their heart stopped beating. Evaluation of a possible association with any of the variables included in the study showed a positive association between the wish to have resuscitation and a higher score in answer to the question about quality of life. No other association was detected with any of the other situations evaluated: prior New York Heart Association (NYHA) class (P=.06), age (P=.4), sex (P=.7), civil status (P=.3), years with the disease (P=.5), cause of the heart failure (P=.6), or prior episodes of mechanical ventilation (P=.9).

We may well have to continue asking this question to patients at varying stages of their disease. Indeed, as we learnt from the study by Krumholz et al,<sup>2</sup> a marked proportion of patients change their preferences two months after hospital discharge, especially those who had initially shown a desire not to have resuscitation. It is also important to understand that, as the time of death approaches during the last 6 months of a disease, the wish not to have any resuscitation is more common.<sup>7</sup>

Thus, in agreement with Crespo and Paniagua,<sup>1</sup> it is fundamental to determine the wishes of the patient with advanced heart failure concerning resuscitation, as well as opinions about other factors, such as not to be admitted to hospital. The correct management of these patients requires not only that we ask these questions but also that we include

a written record of the opinions and answers, both in the medical charts of the patient who is in hospital and in any other written report we make. This way we can improve the care of patients with end-stage heart failure.<sup>3</sup>

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## Response

### To the Editor:

We thank Formiga et al for their interest in our article and their comments. To avoid our answer being blurred by our opinion about a subject with which we are very close, we shall just respond with a few clarifications.

Several differences exist between heart failure and other chronic progressive diseases, such as cancer for example. These differences mean that the decisions and attitudes of patients and physicians concerning resuscitation when faced with cardiac arrest vary according to the underlying disease. During the terminal stage of the final course of heart failure, sudden death can be an alleviation when compared with death due to progression of the disease. Nevertheless, the clinical course in most patients with heart failure is characterized

by long periods of stability interspersed with short periods of instability. Although the symptoms during these short periods of instability may be very severe and invalidating, the improvement after the disease has been stabilized with treatment can also be spectacular. Hospitalization for heart failure, therefore, does not always mean that the patient is on the final, inexorably decreasing slope of the disease.

Many of the factors which require a patient with heart failure to be hospitalized are in fact reversible. Cardiac arrest may occur at any time during the course of heart failure. The condition is often associated with an electrically unstable myocardium, rapid loss of electrolytes during diuresis and/or the use of possibly arrhythmogenic drugs. The condition does not necessarily, though, lead to the final stage of the disease.

In our article<sup>2</sup> we do not show an attitude of being "in favor of resuscitation measures in most (77%) patients." Rather, we illustrate the opinion of the patients themselves with data from the SUPPORT study.<sup>3</sup> Of these, 77% stated their wish to be resuscitated if they suffered cardiac arrest. Broadly speaking and despite the small sample size, the data provided by Formiga et al confirm that a majority of patients wish to be resuscitated (60%; 95% CI, 48%-71%). When the patients in the SUPPORT study were interviewed again 2 months later, of the 23% of those who had not wanted resuscitation 40% had changed their mind, whereas of the 77% who had wanted resuscitation, only 19% had changed their mind.

The character of our article in this regard was aimed at highlighting the delicate and changing situation. Thus, we cannot agree more with Formiga et al that perfect communication between the medical team and the patient and the patient's family is very important, and that this communication should be continuous so that these decisions, which are always difficult, are taken in the best possible way.

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