

## Importance of Determining the Left Ventricular Ejection Fraction in Elderly Patients With Acute Heart Failure Seen in Emergency Departments

### To the Editor,

We read with great interest the article Miró et al<sup>1</sup> published in the *Revista Española de Cardiología* regarding prognostic factors for elderly patients treated for acute heart failure in emergency rooms. The strong point of the study is that it includes all heart failure patients older than 65 years who came to the emergency room during one month and provides an assessment of their functional class according to the Barthel scale, which was one of the prognostic factors for mortality at 30 days. However, we must point out that the left ventricular ejection fraction was not listed among the possible prognostic factors. According to clinical practice guidelines for diagnosing heart failure, heart failure signs and symptoms are required along with objective evidence of a structural or functional change in the heart at rest.<sup>2</sup> In daily clinical practice, we often resort to the echocardiogram or the natriuretic peptide results, and one of the limitations in this study, recognised by the authors themselves, is that neither of these tests were used in a large number of patients, despite

the fact that as many as 85% were admitted to tertiary hospitals. The Euro Heart Failure Survey II showed that fewer echocardiograms are performed elderly patients who are hospitalised due to an episode of acute heart failure than in younger patients<sup>3</sup>; however, we believe that knowing the left ventricular ejection fraction is a criterion of quality of care for treating patients with heart failure. For this reason, we would like to know how many of the patients in the study conducted by Miró et al. had a known ejection fraction at time of hospitalisation, or at least one from the previous year. We feel that this information is very relevant, since treatments that have been shown to be effective are applied according to this result. Such treatments include inhibition of the renin-angiotensin-aldosterone and sympathetic systems in patients with systolic dysfunction of the left ventricle.<sup>2</sup>

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## Response

### To the Editor,

Dr Castellote Varona states that geriatric assessment has shown to be useful in hospital emergency services and mentions his references 2 and 3; these do include patients from emergency units, but geriatric assessment is not carried out by those services. Geriatric assessment in the emergency rooms is a topic of debate<sup>1,2</sup> and, in any case, it is not systematically carried out by Spanish emergency units, which are known for their high patient volumes.<sup>3,4</sup> Although we are among those with a growing opinion of the value of proper functional assessments for the elderly in emergency rooms,<sup>5,6</sup> our emergency services do not currently perform a

general geriatric assessment that includes in-depth examination of factors related to polypharmacy, treatment adherence, social problems, delirium, anthropometric variables, or the depressive, cognitive and functional states mentioned by the author, since the doctors in these units are bound to act depending on the time required by the patient's specific problem. Therefore, we believe that a geriatric assessment that is specifically adapted to the emergency room dynamic would help incorporate this tool in the normal treatment routine.

Furthermore, we believe that our study reflects the true (low) capacity of Spanish emergency services when it comes to quickly obtaining the nutritional parameters mentioned by Dr Castellote Varona, or the natriuretic peptide score or echographic estimation of the left ventricular ejection fraction mentioned by Dr González-Costello et al. Having this information at a later date, after admission, is not useful for making decisions about treatment and whether to admit or discharge a patient in an emergency unit. Furthermore, in hospitals that do not have a fully computerised clinical history, it may even be difficult to find out the patient's previous ejection fraction at the moment when he/she is being treated in the emergency room. Not to mention that it may not have been measured: only 29% of our patients had a prior estimated ejection fraction, and it was increasingly uncommon in the oldest patients: 65-74 years, 38%; 75-84 years, 28%; >84 years, 22% ( $P<.01$ ).

We are conscious of the fact that our model for acute heart failure (AHF) in emergency units<sup>7</sup> has advantages and disadvantages when compared to other models used to obtain a prognosis for these patients,<sup>8</sup> and of the fact that it contained numerous limitations which were mentioned exhaustively in the original article. However, we feel that the greatest advantage which it offers is that of being realistic and useful for doctors who treat AHF patients in our emergency rooms.

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