Natriuretic peptide in heart failure: where we are, where we are going. Answer to the letter

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We would like to specify some concepts regarding the letter of Correale et al. [1]. There has been an important debate among experts concerning the importance of risk stratification and clinical management in heart failure. Its diagnosis and prognosis remain often unclear. Natriuretic peptides (NP) levels are increased in most patients with heart failure, left ventricular dysfunction, and particularly in the more advanced NYHA stages independent of their etiology [2]. Therefore B-type natriuretic peptide and NT pro-B-type natriuretic peptide (BNP and NTproBNP) measurements have been demonstrated in several multi center studies to be correlated to outcome and re-hospitalization. A BNP decrease during hospitalization of more than 50% with respect to its value at admission is a good marker of the reduction of mortality and adverse events [3]. Of course a single NP measurement cannot stratify HF patients, but a serial analysis even in ambulatory patients, should help the risk stratification, and to monitor the response to the treatment. Common clinical parameters combined with NP measurements should better identify patients at higher risk. In this context, traditional and new imaging techniques (echocardiography, tissue Doppler, SPECT, magnetic resonance) are able to recognize pathophysiological mechanisms and hemodynamic consequences. A multidisciplinary approach based on the clinical imaging and laboratory parameters should provide a better suited therapy with the consequence of cost and hospital stay reduction.

The potential confounding factors, such as age, obesity, renal dysfunction, and the lack of specific therapeutic

interventions based on the NP levels measured may explain why several prospective clinical studies have shown mixed results, despite an overall trend towards clinical benefits, favoring a natriuretic peptide-guided approach [4]. Utilizing natriuretic peptide measurements to guide outpatient therapy for heart failure has been set up to be tested in several prospectives, randomized controlled trials, many with overall favorable prospects. A new algorithm taking into consideration all clinical and imaging parameters, as well as NP measurements, should lead to a better and earlier identification of patients with CHF exacerbation. For these reasons, the NP should be considered a powerful tool that can help the physicians in diagnosis, prognosis, and treatment of decompensate patients not only during hospitalization, but even during follow-up period [5].

Conflict of interest None.

References

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