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Letters

TO THE EDITOR

Is Counting One's Chickens Before They Are Hatched an Inevitable Ending?

We have read with great interest the paper by Witt et al. (1) that was recently published in *JACC: Heart Failure*. The investigators reported that patients with left bundle branch block and mildly to moderately reduced left ventricular ejection fraction (LVEF) have remarkably poor long-term clinical outcomes that are significantly worse than those of patients with a similar LVEF but no conduction system disease. The high level of mortality and adverse events seen in this group may suggest a patient population that needs and would potentially benefit from cardiac resynchronization therapy (CRT) (1).

Biomarkers can predict left ventricular (LV) reverse remodeling (RR) and LV function recovery. Also, changes in several biomarkers have been reported after successful LVRR (2–5). Gaggin et al. (2) reported that only serial measurement of soluble ST2 (sST2) was associated with prognostic information to baseline concentrations and predicted change in LV function. Osteopontin (OPN) is a matrix glycoprotein required for the activation of fibroblasts upon transforming growth factor-β1 stimulation. Plasma OPN and OPN-expressing lymphocytes correlate with the severity of heart failure. Plasma OPN changes may represent a marker of response to CRT (3). Plasma annexin A5, a protein related to cellular damage, is associated with systolic dysfunction. CRT-induced LV reverse remodeling is associated with a reduction in plasma annexin A5 (4). N-terminal pro-B-type natriuretic peptide, sST2, high-sensitivity cardiac troponin T, and galectin-3 were evaluated with regard to LVRR in patients with heart failure by Lupón et al. (5). sST2 was found to be the only biomarker that was independently associated with LVRR (5).

In this context, evaluation of serum biomarkers, especially sST2, might be beneficial with regard to necessity or response of CRT in patients with left bundle branch block and mildly to moderately reduced LVEF.

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Please note: Both authors have reported that they have no relationships relevant to the contents of this paper to disclose.

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REPLY: Is Counting One's Chickens Before They Are Hatched an Inevitable Ending?

We thank Drs. Cerit and Duygu for their comments related to our study (1). They promote the idea of using biomarkers for prediction of reverse remodeling and response to cardiac resynchronization therapy (CRT). They specifically highlight soluble ST2, a protein that increases in the setting of cardiac remodeling and may add incremental value beyond more established markers like N-terminal pro–B-type natriuretic peptide (2). Biomarkers, like other tools for prediction of CRT response, such as electrocardiographic parameters, echocardiographic findings, and clinical conditions, could be valuable in finding appropriate patients for