Levosimendan in Patients with Decompensated Heart Failure

Heart failure is considered a public health problem in several countries and, unlikely other common cardiovascular diseases, its prevalence is on the rise as the elderly population, in whom the prevalence of this pathology is higher, increases.

The pictures of decompensated heart failure (DHF) represent the third cause of hospitalization and the first cardiovascular one in Brazil, presenting high mortality[1]. Thus, the development of therapeutic strategies capable of preventing death by DHF and improving the quality of life of these patients has become a challenge. In this sense, the BELIEF study proposes the use of levosimendan as the inotropic agent of choice for the treatment of DHF.

The study subjects selected for the BELIEF study had important systolic ventricular dysfunction (SVD) and developed decompensated left heart failure (LHF) without hypotension, even after high doses of diuretics.

To our knowledge, these subjects do not represent the majority of the patients with SVD that develop decompensated LHF, as this group of patients usually presents arterial hypotension and, sometimes, renal failure during cardiac decompensations[2].

We want to emphasize that the patients that develop LHF and hypertensive response frequently present normal systolic ventricular function and are treated with vasodilators and diuretics[3]. This group of patients, with normal ejection fraction, represents half of the total number of patients with HF and are not included in the BELIEF[4] study.

Finally, it would be relevant to identify the factors that trigger the cardiac decompensation, such as infections, pulmonary thromboembolism, acute renal failure, arrhythmias, anemia, ischemia, lack of therapeutic adherence, underlying disease progression, alcohol use and sodium overload, as, in many cases, the correction of this factor is essential for the institution of adequate management and the observation of a favorable clinical response in decompensated heart failure[5].

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"BELIEF": Believe It or Not

The BELIEF[1] study, recently published at *Arquivos Brasileiros de Cardiologia* and carried out at several Brazilian research centers, proposed to assess the efficacy and safety of levosimendan use in patients with decompensated heart failure. We think that the study was not designed to test the efficacy and safety of the medication. The authors were careful when concluded that levosimendan might be a short-term alternative for decompensated heart failure management. However, this interpretation is not supported by the study results and the previously published randomized clinical trials. We present here an opposing view, indispensable for the shaping of clinical knowledge and therapeutic practices[2].

The BELIEF study has a cohort design, and therefore, is an observational, multicentric, non-comparative and open study, on the use of levosimendan in patients with decompensated heart failure. Hence, it cannot test or verify the efficacy and safety of the drug. It is, in fact, a series of 182 cases. All cases received the intervention and, therefore, it is not possible to conclude about its efficacy, which can only be demonstrated from comparative studies, preferably randomized ones[3]. It