

Hear Failure as a Continuous Entity. Heart Failure with Recovered Ejection Fraction

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Prevalence of Heart Failure (HF) is increasing steadily in the last decades and will follow this trend over the coming years. This is due, among other things, to the enhancement in survival of multiple cardiomyopathies which lead to HF as a common final stage.

This has captured the attention of the scientific community evidenced by the development of hundreds of relevant studies and clinical trials in this area, broadening our knowledge of the Physiopathology of the disease. As a consequence, new upcoming therapies have been established, Guidelines have been updated and its use has been generalized in clinical practice, leading to a significant improvement of the clinical results (focusing the main objective in the increase of patient survival and quality of life) [1,2].

Recent HF guidelines published in 2016 by the ESC established a new classification of HF based on the Ejection Fraction (EF) and dividing it into three categories: HF with preserved ejection fraction (HFpEF) when EF is > 50%; HF with reduced EF (HfrEF) when EF is < 40%; and an intermediate category, HF with moderate reduced EF (HFmrHF) when EF is between 40 - 49%.

This new classification establish a new group or entity which includes features from the two neighboring ones, though its different prognosis has been included as an independent group. In origin, it's etiology is closer to HfrEF, but a better prognosis locates it closer to HfpEF. Fact is, that guidelines recognise the inclusion of this new group to trigger the progress of new studies which could improve the definition of these patients and determine appropriate therapies for their treatment.

Having said this, the object of this review is not to criticize the recent classification of HF by the ESC but to demonstrate these groups are not stagnating. The HF, beyond EF, is a living entity where patients who express HF, present a clinical board where the heart, for whatever the reason, is incapable to develop normal functioning, leading to symptoms that compromise the quality of life and the prognosis of this patients.

It is not infrequent to come across patients with initial reduced EF (after an ischemic episode, toxic exposure or even arrhythmias) who after initiating an etiologic treatment manage to recover the EF. These patients, that initially would have been classified as HfrEF, when following the EF based classification would be reclassified as HfpEF, and therefore leading to a change in treatment strategy.

Nevertheless, it has been thoroughly proved that the measures taken both in the pharmacologic treatment required as in the follow up, continue to be as in the HFrEF.

There is a wide consensus that recommends to maintain the HFrEF phase treatment despite the EF recovery (independently of the etiologic treatment, when LV dysfunction is severe, the recommended treatment seems to improve the prognosis of these patients). A clear example of this fact is the tachycardiomyopathy (tachycardia induced cardiomyopathy), where the tissular damaged induced after the tachycardia (stablished as soon as a week after the arrhythmia has started) persist even after the total recovery of the EF, and in new onset of the arrhythmia (20 - 25% of incidence) the impairment happens sooner and with worse prognosis [3].

Maybe the need of the indicated devices by the bad prognosis of the HF_rEF should to be reestablished, (not to replace ICD).

We would like to suggest a new group inside the classification of HF, the HF with recovered EF (HF_{rec}EF). This group would include those patients who initially presented HF with not preserved EF (< 50%), and after specific treatment based on their etiology (revascularization, toxic suppression, arrhythmia control...) or general treatment recommended by the guidelines (betablockers, ACEi/ARII, MRAs...) have normalized the ventricular function during follow up. The removal of these treatments, even after rectifying of the root cause of the dysfunction, would probably destabilize the patient's clinic and lead to a worsening of the prognosis.

It can happen that patients with a clear dysfunction rectifiable root cause (i.e. valvulopathy leading to IC and after valve replacement/repairment) which normalize their function immediately (premature treatment impairs the disease development) do not belong to the HF_{rec}EF group.

This definitely reflects the need of future studies in these patients to determine the treatment requirements and the global manage of this not infrequent group of patients.

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