

Survival in patients with heart failure and preserved left ventricular ejection fraction – results from MAGGIC meta-analysis

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Another interesting work presented this year at the ESC Barcelona was the MAGGIC meta-analysis, who analyzed survival in patients with heart failure and preserved versus impaired left ventricular ejection fraction (LVEF).

The MAGGIC (Meta-Analysis Global Group in Chronic Heart Failure) study investigators thought to clarify whether prognosis of heart failure with preserved EF (HF-PEF) differs to that for HF with low EF patients (HF-lowEF).

Although the distinction between HF-PEF and HF-lowEF is widely accepted, this classification has been the genesis of many controversies. This idea has recently debated in the literature and there has been conflicting evidences from previous studies of the outcome for these patients.

The hypothesis is that patients with HF-PEF have lower mortality than patients with HF-lowEF. It is very important because approximately half of the HF patients have a normal or near normal LVEF.

This meta-analysis combined data from studies that recruited patients without an LVEF inclusion criterion and reported all-cause mortality.

Demographics data, medical history, clinical status, LVEF, and all-cause mortality have been submitted to a coordinating center (Auckland, New Zealand). Data from 29 prospective and comparative studies involving 46.596 patients were analyzed. Patients were classified into 2 groups according to LVEF cut-off: LVEF \geq 50% or HF-PEF, and LVEF $<$ 50% or HF-lowEF. A separate analysis from the CHARM study was done using similar methods.

25,796 (59%) patients had HF-lowEF, 20% HF-PEF and in 21% patients LVEF data was missing. In HF-PEF group affected patients were more likely to be older (72 \pm 12 vs. 66 \pm 12), to be women (51% vs. 28%) and to have a history of hypertension (47% vs. 38%). Fewer had ischemic etiology (41% vs.57%) compared with HF-lowEF.

The prognosis was worse for the HF-lowEF group compared to HF-PEF, and the LVEF was

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an important prognostic index, particularly under 30-40%. The HF-PEF group had better survival than the HF-lowEF. The analysis of the CHARM cohort using LVEF $<$ or \geq 50% demonstrated similar results in terms of survival.

In conclusion, MAGGIC study showed a better prognosis and survival for HF-PEF patients compared with HF-lowEF patients.

Survival in patients with heart failure and preserved versus impaired left ventricular ejection fraction: an individual patient data meta-analysis: September 2, Barcelona, ESC Congress 2009, Heart failure Hot Line Session, Meta-Analysis Global Group in Chronic Heart Failure (MAGGIC) Investigators. □

