β-blocker and I_f Current Blocker in Chronic Heart Failure Therapy: *Is Rate Control the Main Issue or Not?*

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Resting heart rate (HR) is increased in patients with heart failure (HF). Increased HR was independently associated with increased risk of total mortality, cardiovascular mortality, and death from chronic heart failure.

The magnitude of HR reduction in β-blocker treatment trials of patients with HF is associated with a reduction in mortality. Yet, the mechanistic and causal role of HR in HF is unclear, and recent trials with selective HR reduction by I_f current blocker have not consistently achieved benefit: the BEAUTIFUL trial in patients with coronary artery disease and left ventricular dysfunction did not achieve a significant benefit in the primary endpoint, and only the coronary outcome, not the HF outcome, was improved; in the SHIFT trial, however, patients with symptomatic heart failure had a significant benefit in the primary endpoint of cardiovascular mortality and hospitalization for worsening HF.

HR plays an important part in the pathophysiology of heart failure and that heart-rate modulation can interfere with the progression of the disease. Despite the close relation observed between outcomes and HR, there is almost certainly a multiplicity of such mechanisms, with reduction of HR probable an epiphenomenon or just the consequence of an improved situation. Nevertheless, the current study results support that HR is one of many contributors but the main one to these benefits for chronic HF patients.