Patients with heart failure with improved ejection fraction benefit from the SGLT2 inhibitor dapagliflozin: Study

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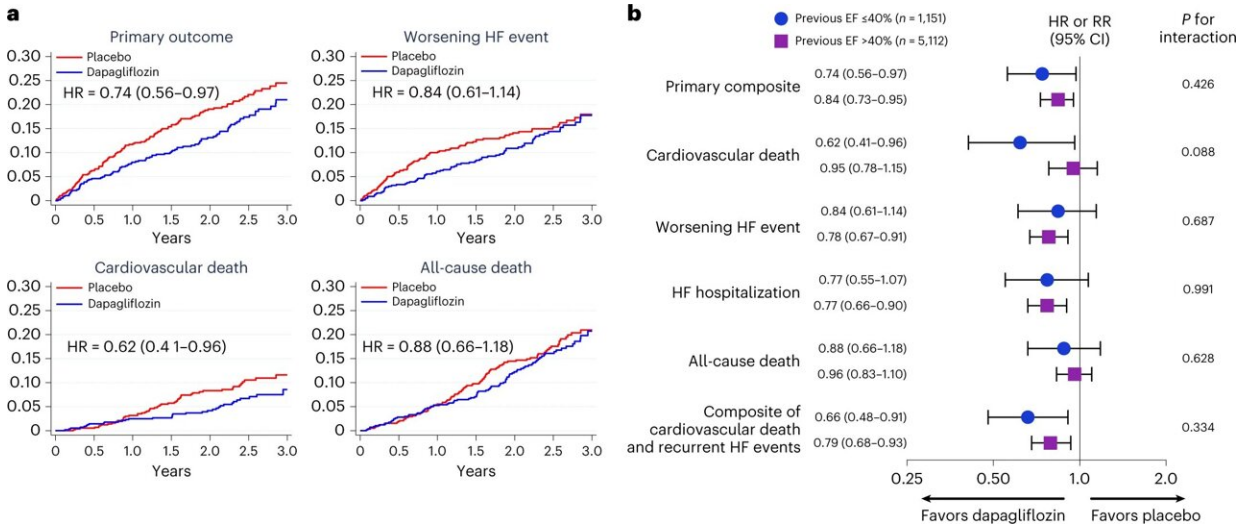

Primary and secondary end points. **a**, Incidence of the primary outcome (upper left), worsening HF (upper right), cardiovascular death (lower left) and all-cause death (lower right) by treatment assignment in patients with HF with improved EF. Participants randomized to dapagliflozin are indicated in blue and those randomized to placebo in red. Each of the graphs shows Kaplan–Meier curves with an HR and 95% CI estimated from a Cox's model with two-sided P values. No adjustment for multiple comparisons was made. **b**, Primary and secondary end points by treatment assignment in patients with previous EF of 40% or less and in those with EF consistently over 40%. Estimates are HRs or RRs; 95% CIs were estimated from Cox models with two-sided P values and are displayed as error bars. The RR was calculated for the assessment of cardiovascular death and total HF events using the method of Lin et al. Interaction P values refer to the treatment by subgroup interaction and represent a two-sided P value for

interaction from the Wald test of the Cox model. Credit: *Nature Medicine* (2022). DOI: 10.1038/s41591-022-02102-9

With modern therapies for heart failure (HF) with reduced ejection fraction (HFrEF), some patients can improve their cardiac function during treatment. But despite this improvement in the ability of their hearts to pump, these patients with so called heart failure with improved ejection fraction (HFimpEF) remain at high risk for adverse outcomes.

Unfortunately, they have been excluded from virtually all clinical trials in heart failure and there has been little evidence about how best to improve clinical management for this growing patient population.

Researchers from Brigham and Women's Hospital, a founding member of Mass General Brigham, and collaborators from the University of Minnesota and University of Glasgow have conducted an analysis that suggests that this patient population may further benefit from initiation of the SGLT2 inhibitor dapagliflozin, a heart failure medication that has received attention after presentations earlier this year on data from the randomized, controlled DELIVER clinical trial.

In a prespecified analysis of data from the DELIVER trial, researchers looked at outcomes for 1,151 patients with HFimpEF and found that dapagliflozin reduced the primary composite outcome, first worsening heart failure events, cardiovascular death and total worsening heart failure events.

"These are essentially the first large-scale randomized outcomes data in patients with heart failure and improved ejection fraction," said co-corresponding author Scott D. Solomon, MD, of the BWH Division of Cardiovascular Medicine.

"As current therapy of heart failure with reduced ejection fraction gets better, and more and more patients show improvement, this group is becoming larger. These data suggest that addition of an SGLT2 inhibitor can benefit these patients and should inform treatment decision-making."

The research is published in the journal *Nature Medicine*.

More information: Orly Vardeny, Dapagliflozin in heart failure with improved ejection fraction: a prespecified analysis of the DELIVER trial, *Nature Medicine* (2022). DOI: 10.1038/s41591-022-02102-9

Provided by Brigham and Women's Hospital