Patients with heart failure benefit from dapagliflozin regardless of ejection fraction

August 29 2022

Credit: Pixabay/CC0 Public Domain

Dapagliflozin reduces the risks of death and cardiovascular events in patients with heart failure regardless of ejection fraction, according to late breaking research presented in a Hot Line session on 27 August at

ESC Congress 2022.

This pre-specified patient-level meta-analysis combined the DAPA-HF and DELIVER trials of the SGLT2 inhibitor dapagliflozin in patients with heart failure. DAPA-HF enrolled patients with reduced ejection fraction (40% or less) and DELIVER enrolled patients with mildly reduced and preserved ejection fraction (above 40%). Both trials randomly allocated participants to dapagliflozin 10 mg once daily or placebo.

The first aim of this analysis was to examine the effect of dapagliflozin on a number of secondary outcomes that each trial alone was not powered to examine. The second aim was to examine if dapagliflozin was effective across the entire range of ejection fraction, since the EMPEROR-Preserved trial previously suggested that the effect of empagliflozin, another SGLT2 inhibitor, may be attenuated in patients with higher ejection fraction.

A total of 11,007 patients were randomized to dapagliflozin or placebo in the two trials. Survival analysis was used to examine the effect of dapagliflozin on death from cardiovascular causes; death from any cause; total hospital admissions for heart failure; and the composite of death from cardiovascular causes, myocardial infarction, or stroke (major adverse cardiovascular events; MACE).

The average age of participants was 69 years and 35% were women. The median follow up was 1.8 years. Dapagliflozin reduced the risk of death from cardiovascular causes by 14% (hazard ratio [HR] 0.86; 95% confidence interval [CI] 0.76–0.97; p=0.01), death from any cause by 10% (HR 0.90; 95% CI 0.82–0.99; p=0.03), total hospital admissions for heart failure by 29% (relative risk [RR] 0.71; 95% CI 0.65–0.78; p