EFFECTS OF DAPAGLIFLOZIN ON PHYSICAL AND SOCIAL ACTIVITY LIMITATIONS IN PATIENTS WITH HEART FAILURE: AN ANALYSIS OF DAPA-HF

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BACKGROUND

- In DAPA-HF, compared to placebo, the sodium-glucose cotransporter 2 (SGLT-2) inhibitor, dapagliflozin, reduced the risk of cardiovascular death or worsening heart failure in patients with heart failure with reduced ejection fraction (HFrEF).
- Patients with HFrEF experience substantial reductions in health-related quality of life and report significant limitations in physical and social activities.

We examined whether dapagliflozin improved the degree of physical and social activity limitations measured using the Kansas City Cardiomyopathy Questionnaire (KCCQ) in DAPA-HF.

METHODS

- Key inclusion criteria: 1) NYHA class II–IV, 2) LVEF ≤ 40%, 3) elevated plasma pro-BNP concentration ≥600 pg/mL (≥400 pg/mL if hospitalized within the previous 12 months). Patients with atrial fibrillation or atrial flutter were required to have a pro-BNP level ≥900 ng/L.
- Primary endpoint: composite of worsening heart failure (HF), compared to placebo, the sodium-glucose cotransporter 2 (SGLT-2) inhibitor, dapagliflozin, reduced the risk of cardiovascular death or worsening heart failure in patients with heart failure with reduced ejection fraction (HFrEF).
- Randomized patients to receive either dapagliflozin (10mg oral once daily) or placebo in addition to recommended concomitant therapy.
- Overall, dapagliflozin reduced the primary endpoint by 26% (HR 0.74, 95% CI 0.65, 0.85; p<0.0001).

The KCCQ is a 23-item, self-administered, disease-specific instrument that quantifies health status in the domains of physical function, role limitation due to physical health problems, social function, role limitation due to emotional problems, and global summary measure.

RESULTS

- Of the 4744 patients randomized in DAPA-HF, 4443 (94%) patients had available KCCQ data and 42% (90%) had complete data for both physical and social activity limitations. Mean improvements in physical and social activity limitation scores were 6.6±2.40 and 6.5±2.74, respectively.

Each individual physical and social activity limitation domain had a lower IQR and significant improvement compared to baseline. The greatest changes were seen in doing gardening or housework or caring for groceries (+2.46 [0.75, 3.96]) Table 3.

The DAPA-HF results suggest that dapagliflozin improved physical and social activity limitations scores in patients with heart failure with reduced ejection fraction.