

008. Long-Term Effect of Patiromer for Hyperkalemia Treatment in Patients With HFmrEF and Diabetic Nephropathy on RAAS Inhibitors

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Purpose

Heart failure (HF) patients with mid-range ejection fraction (HFmrEF, 40–49%) are an important subgroup requiring further study. Renin-angiotensin-aldosterone system inhibitors (RAASi) have not been shown to reduce mortality in these patients but are often used to manage coexisting conditions, such as hypertension (HTN), diabetes mellitus (DM), and chronic kidney disease (CKD), or to provide symptom relief. Chronic hyperkalemia and CKD may complicate use of RAASi. Patiromer, a sodium-free nonabsorbed potassium binder that uses calcium as the counter-exchange ion, is approved for the treatment of hyperkalemia, including in the US, the EU, and Australia. The long-term effects of patiromer on serum potassium in HFmrEF patients on RAASi were examined in a post-hoc analysis of AMETHYST-DN.

Methods

Patients with CKD, type 2 DM and hyperkalemia (baseline potassium >5.0–130 to ≤180 mmHg; and diastolic blood pressure (DBP) >80 to ≤110 mmHg at screening. Patients remained on RAASi during study treatment. Changes in mean serum potassium (central lab) from baseline through 52 weeks were evaluated in the HFmrEF subgroup.

Results

46/304 patients who were randomized and received at least 1 patiromer dose had HFmrEF (100% Caucasian, 74% male, 72% ≥65 years; mean [SD] EF=44 [3] % and estimated glomerular filtration rate [eGFR]=42 [14] mL/min/1.73m²). All had HTN (baseline mean BP 154/84 mmHg). Mean serum potassium was reduced to <5.0 mEq/L at the first post-baseline visit (day 3; 48 hours after starting patiromer); from a mean (SE) value at baseline of 5.21 (0.06) mEq/L, the mean (SE) change from baseline on day 3 was -0.32 (0.06) mEq/L. Mean serum potassium was then maintained <5.0 mEq/L through week 52; the mean (SE) change from baseline in serum potassium at week 52 was -0.58 (0.1) mEq/L. From weeks 12 to 52, ≥85% of patients had serum potassium in the target range of 3.8 to 5.0 mEq/L at monthly visits. Thirty-three (72%) patients reported ≥1 adverse event (AE); influenza and worsening of CKD were the 2 most common AEs (5 patients each; none severe). Two patients had serum potassium <3.5 mEq/L; 1 patient had serum magnesium <1.2 mg/dL (none <1.0 mg/dL). Mean (SD) change from baseline to 52 weeks was: eGFR, +5 (19.6) mL/min/1.73m²; SBP/DBP, -21 (19.2)/-10 (11.7) mmHg.

Conclusions

These post-hoc results suggest that patiromer allows control of hyperkalemia in HFmrEF patients on RAASi and require prospective evaluation.