APPETIZE: Palatability of and Preference for Potassium Binders in Patients With CKD and Hyperkalemia

Session Information

- Fluid, Electrolyte, and Acid-Base Disorders: Clinical
  November 04, 2022 | Location: Exhibit Hall, Orange County Convention Center, West Building
  Abstract Time: 10:00 AM - 12:00 PM

Category: Fluid, Electrolytes, and Acid-Base Disorders

- 1002 Fluid, Electrolyte, and Acid-Base Disorders: Clinical

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Background

Traditional K+ binders (PB) such as sodium and calcium polystyrene sulphonate (C/SPS), while not indicated for the chronic management of hyperkalemia (HK) are often believed to be unpalatable, poorly tolerated by patients, and associated with gastrointestinal side effects. Novel PB such as sodium zirconium cyclosilicate (SZC) and patiromer sorbitex calcium (CPaS) may be better tolerated; no published data exist for palatability, an important patient-centric endpoint. The primary study aim was to compare the patient-reported overall palatability of 3 currently available PB.

Methods

APPETIZE (NCT04566653) was a cross-sectional, randomized crossover study evaluating the palatability of and patient preference for C/SPS, SZC, and CPaS. Participants with chronic kidney disease (CKD), documented HK, and no recent use of PB were randomized to one of six taste sequences, with a ‘sip and spit’ taste test approach. Each PB was scored with respect to patient-centric attributes (taste, texture, smell, and mouthfeel) on a 0–10 scale, combined into an overall palatability composite score (0–40), and analyzed using linear mixed models. Patients
were also asked to rank by palatability their first choice among the 3 PB. Further analyses of relevant factors are planned for the palatability of and emotional response to HK treatment options.

Results

A total of 144 patients participated from the US (N=58), EU (France, Italy, and Spain, N=62), and Canada (N=24) including 77 (53%) dialysis-dependent and 67 (47%) non dialysis-dependent CKD patients; 12% had history of heart failure. Mean age was 66 y, 70% were male.

Conclusion

In all regions palatability of SZC was superior to C/SPS and similar to CPaS, and patients ranked preference for SZC numerically higher than for the other products. These findings suggest that patients prefer newer PB, and this may improve compliance to long-term HK treatment.

<table>
<thead>
<tr>
<th>Product</th>
<th>Palatability Composite Score (mean +/- SD)</th>
<th>Overall Preference Ranking (% who ranked first choice)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>US</td>
<td>EU</td>
</tr>
<tr>
<td>SZC</td>
<td>24.9 (8.1)</td>
<td>23.2 (9.4)</td>
</tr>
<tr>
<td>CPaS</td>
<td>24.8 (9.2)</td>
<td>22.6 (9.2)</td>
</tr>
<tr>
<td>C/SPS</td>
<td>18.9 (9.0)</td>
<td>18.6 (12.1)</td>
</tr>
</tbody>
</table>

\*p<0.001 for SZC vs C/SPS, \*p<0.025 for SZC vs C/SPS, \*missing values in 27.1%

Table. Palatability composite and preference ranking results

Funding

- Commercial Support