Introduction

Dravet syndrome (DS) is a rare, severe, treatment-resistant epileptic encephalopathy that is associated with neurodevelopmental abnormalities. In a recent Phase 3 clinical trial, treatment with fenfluramine (ZK-008) at a dose of fenfluramine HCl containing 2.2 mg/mL fenfluramine in an oral solution showed a statistically significant reduction in the frequency of convulsive seizures compared with placebo.

Methods

Patients with DS aged 5 to 18 years were randomized to fenfluramine 0.7 mg/kg/day, fenfluramine 0.2 mg/kg/day, or placebo and were treated for 14 weeks.

The Pediatric Quality of Life Inventory™ (PedsQL®), 4.0 Generic Core Scales® and the Behavior Rating Inventory for Executive Function (BRIEF®2) instruments were completed by caregivers of patients at baseline and end of study.

The Spearman’s rho correlations were calculated to assess the associations between PedsQL® Scales (Physical, Psychosocial, School, and Social) and BRIEF®2 Indexes/Composite scores from baseline to end of study with changes in PedsQL® Scales/Summary scores.

Results

Spearman’s rho correlations between changes in PedsQL® Scales/Summary scores and BRIEF®2 Indexes/Composite scores from baseline to end of study are presented in Figure 1. The correlation between changes in BRIEF®2 Indexes/Composite scores from baseline to end of study with changes in PedsQL® Scales/Summary scores in each treatment group are presented in Table 1.

Conclusions

Improvement in BRIEF®2 Indexes/Composite scores of self-regulation was associated with improvement in PedsQL® Physical, Social, Psychosocial, and School Scales/Summary scores.

An apparent dose response was observed, with a number of statistically significant associations between changes in BRIEF®2 Indexes/Composite scores and PedsQL® Summary scores.

The presence of the close response suggests an important contribution of seizure control and/or an independent drug effect on self-regulation.

Acknowledgments

The analyses described in this poster were conducted by Global Pharma Consultancy, LLC (Muncy, PA, USA) and were funded by Zogenix, Inc. Professional disclosures are listed below.

Disclosures

• Employee, Zogenix, Inc.; Ownership interest, Zogenix, Inc.

References

4. Equation 2 Indexes/Composite scores of self-regulation were available from caregivers of 73 patients enrolled in the clinical trial.

Figure 1. Correlation Between Change in BRIEF®2 Indexes/Composite Scores and Change in PedsQL® Scales/Summary Scores from Baseline to End of Study

Figure 2. Correlations Between Change in PedsQL® Scales/Summary Scores and Change in BRIEF®2 Indexes/Composite Scores

Figure 3. Number of Significant Correlations Observed in Each Treatment Group for Change in BRIEF®2 Indexes/Composite Scores and Change in PedsQL® Scales/Summary Scores

Table 1. Baseline Demographics

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Total (N=73)</th>
<th>Male</th>
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<tr>
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Significant correlations between changes in PedsQL® Scales/Summary scores and BRIEF®2 Indexes/Composite scores were observed in the entire study population.

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