Efficacy, Safety, and Tolerability of Ecopipam in Tourette Syndrome With Psychiatric Comorbidities

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At the time the study was conducted.

BACKGROUND

- The following information concerns a use that has not been approved by the US Food and Drug Administration.
- Patients with Tourette syndrome (TS) commonly have comorbid psychiatric conditions (eg, anxiety disorders [ANX], attention-deficit/hyperactivity disorder [ADHD], and obsessive-compulsive disorder [OCD]).
- Alpha-2 adrenergic agonists may be more effective in patients with TS and ADHD than in those with TS without comorbid ADHD.
- Antipsychotics (eg, dopamine D2 receptor antagonists) have an unfavorable safety profile that includes the risk of weight gain and development of metabolic abnormalities and movement disorders.
- Ecopipam is a first-in-class investigational agent that is being studied as a potential treatment for TS that blocks the actions of the neurotransmitter dopamine at the D2 receptor.

OBJECTIVE

- Evaluate the efficacy of ecopipam in treating TS in children and adolescents with pre-existing psychiatric comorbidities of ANX, ADHD, or OCD.

METHODS

- Data were analyzed from the phase 2b, randomized, double-blind, parallel-group, placebo-controlled trial that included patients aged 6 to >18 years with confirmed TS and a YGTSS-TTS-20 at screening.
- ANX, ADHD, and OCD medications were permitted if dosage was stable for ≥4 weeks before screening.

RESULTS

- 149 patients were included in the mITT population, with a majority (ecopipam [70.3%], placebo [64.3%]) having comorbid ANX, ADHD, or OCD (Figure 2).
- Significant improvements (ie, decrease in YGTSS-TTS) with ecopipam versus placebo were observed at Week 12 in the overall population (P=0.01), the pooled subgroup with ANX, OCD, or ADHD (P=0.00), those with comorbid ADHD (n=68, P=0.004), and those without OCD (n=123, P=0.02) (Figures 3 and 4), all other subgroups showed numeric improvements favoring ecopipam.
- Results from the 3 scales assessing ANX, ADHD, or OCD indicated no shifts from baseline in the total population or any of the subgroups during the 12-week trial (data not shown).
- To date, the safety profile of ecopipam appears favorable, with no substantial weight gain or metabolic (eg, diabetes, dyslipidemia, hyperglycemia, hyperprolactinemia) or movement disorders (eg, akathisia, dystonia, tardive dyskinesia, withdrawal-emergent dyskinesia) reported during the phase 2b trial.
- For the overall phase 2b trial population, the most commonly reported adverse events were headache, insomnia, somnolence, fatigue, anxiety, nausea, and restlessness (Table 1).

CONCLUSIONS

- In all comorbid subgroups (ie, ANX, ADHD, OCD, and combination), tic reduction (ie, improvement from baseline in YGTSS-TTS at Week 12) with ecopipam was greater compared with placebo.
- Although statistical differences were not observed in all subgroups, this is likely due to the analyses being underpowered to see an effect.
- Based on treatment effect (ie, improvement from baseline in YGTSS-TTS at Week 12) with ecopipam was greater compared with placebo.