therapeutic levels (2.5-15mcg/ml), it has been reported that Lamotrigine is neuroprotective and improves cognition. At the time of overdose, our patient had a Lamotrigine level of 21.5mcg/ml. There is limited literature on cognitive effect of supra-therapeutic levels of Lamotrigine. As such, a causal relationship cannot be determined from a single care report. Also in differentials to consider are schizophrenia and seizures from lamotrigine withdrawal.

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**134 Improvements in Clinical Global Impression of Change With Deutetrabenazine Treatment in Tardive Dyskinesia From the ARM-TD and AIM-TD Studies**

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**ABSTRACT:** Introduction: Tardive dyskinesia (TD) is an involuntary movement disorder that is often irreversible, can affect any body region, and can be debilitating. In the ARM-TD and AIM-TD studies, deutetrabenazine treatment demonstrated statistically and clinically significant reductions in Abnormal Involuntary Movement Scale (AIMS) scores at Week 12 compared with placebo (primary endpoint).

**OBJECTIVE:** To evaluate the efficacy of deutetrabenazine, as measured by the Clinical Global Impression of Change (CGIC) scale, in patients with TD from the pooled ARM-TD and AIM-TD (24 and 36 mg/day doses) data sets, as compared with the pooled placebo cohort.

**METHODS:** ARM-TD and AIM-TD were 12-week, randomized, double-blind, placebo-controlled studies that evaluated the safety and efficacy of deutetrabenazine for the treatment of TD. The key secondary endpoint of each study was the proportion of patients “much improved” or “very much improved” (treatment success) at Week 12 on the CGIC.

**RESULTS:** At Week 12, the odds of treatment success among patients treated with deutetrabenazine (n = 152) was more than double that of patients given placebo (n = 107; odds ratio: 2.12; P = 0.005). In a categorical analysis of CGIC ratings, patients treated with deutetrabenazine showed greater improvement than patients given placebo (P = 0.003). Patients treated with deutetrabenazine also had a significantly better treatment response than those given placebo (least-squares mean CGIC score treatment difference: -0.4; P = 0.006).

**CONCLUSIONS:** Deutetrabenazine treatment led to statistically and clinically significant improvements in TD symptoms based on the CGIC result, suggesting that clinicians were able to recognize the benefit in patients treated with deutetrabenazine.

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**135 Use of Pimavanserin in Combination With Selective Serotonin Reuptake Inhibitors (SSRIs)**

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**ABSTRACT:** Study Objective: Psychosis is common in Parkinson’s disease (PD) and increases in both frequency and severity with disease duration. It is associated with increased morbidity/mortality, complicates management of motor symptoms and often leads to long-term care placement. Pimavanserin is a selective 5-HT2A inverse agonist/antagonist approved in the U.S. for treatment of hallucinations and delusions associated...
with Parkinson's disease psychosis (PDP). Depression affects up to 60% of PD patients and is frequently treated with SSRIs/SNRIs. Data suggest the potential for a synergistic effect between 5 HT2A receptor inverse agonist/antagonists and SSRIs in subjects with neuro-psychiatric disease. This post-hoc analysis evaluated a subgroup of subjects from the pimavanserin clinical program to determine if there was any difference in antipsychotic response between the subjects receiving pimavanserin in combination with an SSRI versus those without.

**METHOD:** A pooled analysis of two 6-week randomized, double-blind, placebo-controlled Phase 3 studies was conducted to assess the overall treatment effect of pimavanserin 34 mg. The outside-North America region in Study 012 was not included due to a difference in methodology in the assessment of the primary endpoint. Subjects in both the 020 and 012 studies received 42 days of treatment. The mITT population included 268 subjects; with 135 in the pimavanserin group. The full safety dataset included 433 subjects; with 202 in the pimavanserin group. Of the 268 subjects in the mITT population, a total of 77 received concomitant therapy with SSRIs. A subgroup analysis was conducted to determine if there was any difference in response among the subjects receiving concomitant SSRIs.

**RESULTS:** Overall, pimavanserin demonstrated a -6.21-point improvement in psychosis at Week 6 as measured by the PD-adapted Scale for Assessment of Positive Symptoms (primary change from baseline analysis [MMRMI]). The treatment difference was 2.87 points over placebo (p < 0.001) and was clinically meaningful. Both subgroups (pimavanserin +/- SSRI) demonstrated a statistically significant improvement over placebo. Among subjects taking concomitant SSRIs, the decrease in psychosis symptoms was more prominent for both pimavanserin and placebo-treated subjects (-8.33 points and -4.01 points, respectively) compared to the 189 subjects not taking SSRIs (-5.36 points and -3.01 points, respectively); the treatment difference was of greater magnitude in the concomitant SSRI treated group (-4.32 vs. -2.34). A total of 10% (4/40) and 7.4% (12/162) of pimavanserin treated subjects, with and without SSRIs, respectively, discontinued because of adverse reactions.

**CONCLUSIONS:** The results of this analysis further support findings that the combination of selective 5-HT2A agonist/antagonists and SSRIs may have additive beneficial effects, suggesting a possible enhancement of antipsychotic effect in subjects treated with concomitant SSRIs.

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