Tradipitant improves worst itch and disease severity in patients with chronic pruritus related to atopic dermatitis

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Background
- Atopic dermatitis (AD) is a chronic inflammatory condition caused by a hypersensitivity reaction in the skin and is characterized by intense pruritus that is not relieved by scratching.1,2
- Substance P (SP) and the neuropeptide-1 receptor (NK1R) have been implicated in itch related to AD.1
- Tradipitant is a potent and selective NK1R antagonist
- A previous study in chronic itch related to AD that is refractory to antihistamines and/or steroids showed a significant relationship between plasma concentration of tradipitant and reduction in itch.
- This study, VP-VLY-686-2102, tested the efficacy of a daily dose of tradipitant (85 mg BID) in itch associated with atopic dermatitis

Methods
- Inclusion Criteria and Randomization
  - Chronic (≥ 6 weeks) itch related to AD, refractory to treatment by patient history
  - Average itch score by visual analog scale (VAS) of ≥ 70 mm (out of 100 mm)
  - Verbal response score (VRS) of ≥ 3 on at least 1 of the past 3 days prior to randomization.
  - SCORAD of < 50%
  - Patients were randomized to either 85 mg tradipitant or placebo (1:1) BID

Assessments of Pruritus
- Worst and Average itch severity by VAS every two weeks in the clinic
- VAS every two weeks in the clinic
- Twice-daily diary questionnaires to report worst and average itch by numeric rating scale (NRS)

Results

Table 2. Intent-to-Treat Analysis at Week 8

<table>
<thead>
<tr>
<th>Loss of Efficacy (N=1)</th>
<th>Lost to Follow-Up (N=5)</th>
<th>Consent Withdrawn (N=10)</th>
<th>Protocol Deviation (N=4)</th>
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<tbody>
<tr>
<td>Reason for Discontinuation:</td>
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<td>Worst itch measured by VAS and multiple other measures of itch showed statistically significant, clinically meaningful improvement (Table 2, Figure 3)</td>
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<td>Disease severity scores showed statistically significant, clinically meaningful improvement (Table 2, Figure 4)</td>
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<td>No serious adverse events (AEs) reported in the study</td>
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<td>There were no significant differences in the total number treatment emergent AEs (tradipitant n=65, placebo n=61)</td>
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<td>The majority of treatment emergent AEs were mild to moderate; severe treatment emergent AEs were reported in 1 tradipitant treated patient and 2 placebo treated patients</td>
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<td>No common treatment emergent AEs were identified in the treatment arm as defined by &lt;5% incidence and having a higher frequency than placebo</td>
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Conclusions
- Tradipitant demonstrates efficacy in reducing the severity of a number of measures of pruritus and disease in patients with atopic dermatitis
- Tradipitant was safe and well tolerated
- Tradipitant, a potent and selective NK1R antagonist, may represent a potential novel treatment for patients with atopic dermatitis

References