ORAL SARECYCLINE FOR TREATMENT OF PAPULOPUSTULAR ROSACEA: RESULTS OF A PILOT STUDY EVALUATION OF EFFECTIVENESS AND SAFETY

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INTRODUCTION

Cystic acne is a common inflammatory facial dermatosis characterized by persistent central facial erythema, asymmetric dilation of vascuclature (bushing), and telangiectasies, with or without papulopustular lesions and phymas.1,3

Beyond the signs and symptoms of rosacea, the disorder may be debilitating, can negatively influence workplace behavior, and has been associated with several adverse psychosocial sequelae.2 Flushing episodes and papulopustular lesions have been reported by patients to be the most bothersome manifestations of rosacea across all severities.4

The second-generation broad spectrum tetracyclines—doxycycline and minocycline—have been commonly used as oral therapies for rosacea over the past several years.5 In 2018, a multicenter, randomized, double-blind, placebo-controlled clinical trial of sarecycline, a novel tetracycline, was approved by the FDA for the treatment of moderate to severe acne vulgaris.1

Sarecycline is a novel oral medication that is not extensively metabolized and has a long half-life. It exhibits a narrow spectrum of antibacterial activity and a low rate of adverse effects historically associated with other tetracyclines, GI side effects, vertigo, and vaginal yeast infections.2

Due to the well-established role for oral tetracyclines in rosacea and the desire to discern current evidence of antibiotic resistant bacteria as much as possible, a pilot study was completed to evaluate oral sarecycline in adults with papulopustular rosacea.

STUDY DESIGN

This was a prospective, parallel group, randomized, multicenter, investigator-blinded, IRB-approved clinical trial.

STUDY DURATION: 12 weeks; Scheduled visits/assessments: Screening, Baseline, Week 4, Week 8, Week 12 and end of study (EOS).

ELIGIBLE SUBJECTS: Adults (≥18 years) of either gender with moderate or severe rosacea, based on Investigator Global Assessment rating with at least 15 and ≥20 facial papules and pustules but no more than 2 facial nodules.

RANDOMIZATION: Subjects were randomized to 2 groups at a 1:1 ratio

Group A: Received the brand tablet formulation of oral sarecycline (Seysara®) once daily based on weight-based dosing as described in the approved product labeling for acne vulgaris.

Group B: Received one tablet daily of Centaur Multivitamin

EFFICACY ENDPOINTS: Primary: Percent of subjects achieving clear or almost clear based on IGA grading scale; Percent reduction of inflammatory lesions at week 12

Secondary: Percent of subjects achieving clear or almost clear based on the IGA rating and percent reduction of inflammatory lesions at week 4 and week 8.

SUBJECT GLOBAL ASSESSMENT (SGA): Tolerability, as measured by severity of erythema, dryness, peeling, oiliness, and pruritis

STATISTICAL ANALYSIS: Conducted on an intent-to-treat basis. All tests two-sided and interpreted at a 5% significance level. Comparisons between treatment groups performed using an ANCOVA technique; baseline values used as the covariate providing necessary assumptions for parametric test satisfaction. The Wilcoxon Rank-Sum test used if needed assumptions for parametric testing were not satisfied; comparative mean scores were also evaluated.

STUDY EVALUATIONS

IGA GRADING SCALE

Table 2. Primary Efficacy Endpoint Data Based on Total Inflammatory Lesion Counts at Each Study Visit

<table>
<thead>
<tr>
<th>Visit</th>
<th>Treatment</th>
<th>Papules</th>
<th>Pustules</th>
<th>Basal Lesions</th>
<th>Total Lesions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 4</td>
<td>Group A</td>
<td>11.9 g</td>
<td>7.2 g</td>
<td>3.8 g</td>
<td>22.9 g</td>
</tr>
<tr>
<td>Week 8</td>
<td>Group A</td>
<td>7.9 g</td>
<td>3.7 g</td>
<td>2.5 g</td>
<td>14.1 g</td>
</tr>
<tr>
<td>Week 12</td>
<td>Group A</td>
<td>3.5 g</td>
<td>2.5 g</td>
<td>1.8 g</td>
<td>7.8 g</td>
</tr>
</tbody>
</table>

STUDY RESULTS

Both study groups met the primary endpoint (Group A: p < .001, Group B: p = .0008); however, Group A (Sarecycline) had greater reductions in IGA scores (p < .0001). Sarecycline performed significantly better than the multivitamin (p < .0001) (Figure 1).

A significant favorable change in SGA scores (Secondary endpoint) was seen in the sarecycline group (p < .01) but not in the multivitamin (p > .05) from week 4 to week 12.

Conclusions

Results of this pilot study demonstrate that oral sarecycline is efficacious as early as 4 weeks and safe for the treatment of papulopustular rosacea in adults based on IGA assessments, total inflammatory lesion reductions, SGA outcomes, and safety evaluations.

The type, frequency, and severity of AEs reported in this study are consistent with what has been reported with oral sarecycline in clinical trials completed to date for treatment of acne, including the pivotal studies performed for FDA approval.

The authors suggest additional studies be conducted to further evaluate the use of oral sarecycline for the treatment of rosacea.

REFERENCES