SYNOPSIS

Acne vulgaris is a common dermatologic disorder that may require treatment over months or years.\(^2,9\)

- Acne negatively impacts quality of life, and acne of any severity can lead to long-term sequelae such as scarring.\(^1,3,11\)

Common treatments for severe/nodulocystic acne include oral isotretinoin, an oral antibiotic combined with a topical (benzoyl peroxide or a retinoid), an oral combined contraceptive, or oral spironolactone (females).\(^1,3,11\)

- Though oral antibiotics and isotretinoin are not recommended for long-term treatment,\(^9\) there is scarce guidance or published research on maintenance therapy.\(^1,3,11\)

Topical retinoids—a mainstay of initial acne treatment—may be prescribed for maintenance once initial oral treatments are complete.\(^1,3,11\)

- Additionally, some retinoids such as tretinoin and tazarotene are indicated for the treatment of fine wrinkles and certain pigmentation disorders.\(^1,3,11\) and some studies have shown that formulations containing adapalene and tazarotene may also reduce acne-induced scarring.\(^1,3,11\)

Tazarotene 0.045% polymeric emulsion is a well-tolerated retinoid that has demonstrated efficacy in acne treatment and may reduce acne-induced post-inflammatory hyperpigmentation (PIH) and melasma.\(^1,3,11\)

- Further, tazarotene lotion provides rapid and sustained improvements in skin barrier function/moisturization.\(^21\)

OBJECTIVE

- To present a case series report of patients with acne who received maintenance treatment with topical tazarotene 0.045% lotion after an initial course of oral isotretinoin.

METHODS

- Patients from a single center with severe recalcitrant acne vulgaris were treated with oral isotretinoin for at least 20 weeks during a clinical trial (n=12).

- All patients received 40 mg isotretinoin once daily for the first 30 days.

- The dosage was then increased to 1 mg/kg of bodyweight (treatment naive) or 1.5 mg/kg (repeat treatment).

- After 20 weeks, patients who achieved clinically clear skin initiated once-daily topical tazarotene 0.045% lotion monotherapy on the day of their last isotretinoin dose.

- Follow up visits occurred at 6 months and 1-year post-isotretinoin treatment.

RESULTS

- A summary of the case series patients is shown in Figure 1.

- Patients (n=12) had a mean age of 17.8 years (standard deviation (SD): 3.8) and the majority were female (58.3%) and White (66.7%).

- Oral isotretinoin was used for an average of 24.3 weeks (SD: 6.7), with a mean cumulative dose of 184.6 mg/kg (SD: 75.1).

- One patient required a repeat course of isotretinoin prior to tazarotene initiation.

- Post-isotretinoin, patients received tazarotene 0.045% lotion for an average of 13.0 months (SD: 6.7).

- No patients relapsed and all showed subjective visual improvements in acne-related scar maintenance treatment.

- None discontinued tazarotene lotion due to adverse events.

- Representative photographs of patients before and after tazarotene lotion maintenance treatment are shown in Figure 2.

FIGURE 1. Case Series Patients and Outcomes Following Maintenance Treatment With Tazarotene 0.045% Lotion

<table>
<thead>
<tr>
<th>Patients (n=12) with severe recalcitrant acne vulgaris</th>
<th>Mean age: 17.8 years</th>
<th>Female: 58.3%</th>
<th>White: 66.7%</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Oral isotretinoin</th>
<th>Maintenance with tazarotene 0.045% lotion</th>
<th>Treatment timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td>24.3 weeks (mean)</td>
<td>13.0 months (mean)</td>
<td></td>
</tr>
</tbody>
</table>

- All patients showed subjective visual improvements in acne-related scarring with tazarotene maintenance treatment.

- No patients discontinued tazarotene lotion due to adverse events.

FIGURE 2. Improvements With Initial Oral Isotretinoin Treatment and Maintenance Treatment With Tazarotene 0.045% Lotion

<table>
<thead>
<tr>
<th>15-year-old White Male</th>
<th>16-year-old White Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 Mo Isotretinoin</td>
<td>5 Mo Isotretinoin</td>
</tr>
<tr>
<td>Pre-Tazarotene</td>
<td>Pre-Tazarotene</td>
</tr>
<tr>
<td>14-year-old Hispanic Male</td>
<td>18-year-old Hispanic Male</td>
</tr>
<tr>
<td>6 Mo Tazarotene</td>
<td>6 Mo Tazarotone</td>
</tr>
<tr>
<td>Pre-Tazarotene</td>
<td>Pre-Tazarotene</td>
</tr>
<tr>
<td>12 Mo Tazarotene</td>
<td>12 Mo Tazarotene</td>
</tr>
<tr>
<td>Pre-Tazarotene</td>
<td>Pre-Tazarotene</td>
</tr>
</tbody>
</table>

- Cumulative isotretinoin dose: 138 mg/kg Total time on isotretinoin: 20 weeks

- Cumulative isotretinoin dose: 146 mg/kg Total time on isotretinoin: 20 weeks

<table>
<thead>
<tr>
<th>20-year-old White Female</th>
<th>24.3 weeks (mean)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 Mo Tazarotene</td>
<td></td>
</tr>
<tr>
<td>Pre-Tazarotene</td>
<td></td>
</tr>
<tr>
<td>12 Mo Tazarotene</td>
<td></td>
</tr>
<tr>
<td>Pre-Tazarotene</td>
<td></td>
</tr>
</tbody>
</table>

- Cumulative isotretinoin dose: 137 mg/kg Total time on isotretinoin: 20 weeks

REFERENCES


AUTHOR DISCLOSURES

Shanna M. Miranti has been a speaker/consultant, and/or an advisory board member for: Almirall, Altezza Biopharmaceuticals, Dermira, Enjoi, J. Shanna, Ortho Dermatologics, Endирование Limited, and Versa, and an editorial advisory board member for Dermatology Times.

CONCLUSIONS

- There is little guidance or research published on acne maintenance treatment after initial oral isotretinoin or other treatments are complete.

- Topical tazarotene 0.045% polymeric emulsion lotion has previously demonstrated good efficacy, safety, and tolerability with acne and PIH reductions in patients with moderate-to-severe acne, as well as dyspigmentation reductions in patients with melasma and/or PIH.\(^12,18,19\)

- The case reports presented here show that tazarotene 0.045% lotion may be an effective and safe treatment to improve scarring and prevent relapse after initial oral isotretinoin treatment for severe recalcitrant acne.

ACKNOWLEDGMENTS

Medical writing support was provided by Prescott Medical Communications Group (Chicago, IL) with financial support from Ortho Dermatologics, Ortho Dermatologics is a division of Bausch Health US, LLC. Presented at 2024 Winter Clinical Dermatology Conference – Miami. February 16-19, 2024 Miami Beach, FL.