Efalizumab for the treatment of refractory hidradenitis suppurativa

To the Editor: Hidradenitis suppurativa involves exuberant inflammation at affected body sites, and often is a devastating disease with limited therapeutic options. Efalizumab is a once weekly, self-injected humanized monoclonal antibody that inhibits the binding of leukocyte function-associated-1 to intercellular adhesion molecule-1, an interaction that contributes to the activation of T lymphocytes, the adhesion of T lymphocytes to endothelial cells, and the migration of T lymphocytes to sites of inflammation. We conducted a single center, prospective, open-label clinical trial investigating the use of efalizumab for the treatment of adult women with treatment-refractory hidradenitis suppurativa. The study was limited to only women as this disease more commonly affects women, and to potentially maintain the homogeneity of a small study population. This study was approved by our institutional review board. After signing informed consent, 5 women who previously failed multiple other therapies for hidradenitis were enrolled and received 0.7 mg/kg/wk of efalizumab for the first two doses, and 1.0 mg/kg/wk for 10 subsequent doses. No other medications for the treatment of hidradenitis suppurativa were allowed. Disease was measured as the number of inflammatory papules, pustules, nodules,

Table I. Results of efalizumab for the treatment of hidradenitis suppurativa

<table>
<thead>
<tr>
<th>Patient</th>
<th>Age, y</th>
<th>Subjective disease assessment at baseline</th>
<th>Subjective disease assessment at end of treatment</th>
<th>Lesion count, baseline</th>
<th>Lesion count, wk 4</th>
<th>Lesion count, wk 8</th>
<th>Lesion count, wk 12</th>
<th>Lesion count, 4-wk follow-up</th>
<th>Adverse events</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>64</td>
<td>Severe</td>
<td>Severe</td>
<td>57</td>
<td>58</td>
<td>45</td>
<td>–</td>
<td>–</td>
<td>Chills, weight loss, anemia, worsening HS</td>
<td>After 8 doses of the study medication patient discontinued because of worsening of HS</td>
</tr>
<tr>
<td>2</td>
<td>38</td>
<td>Moderate</td>
<td>Severe</td>
<td>27</td>
<td>31</td>
<td>34</td>
<td>48</td>
<td>40</td>
<td>Fever, vomiting, lump in left breast diagnosed as ductal breast carcinoma</td>
<td>Breast carcinoma revealed 12 wk after last dose of medication</td>
</tr>
<tr>
<td>3</td>
<td>24</td>
<td>Severe</td>
<td>–</td>
<td>45</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td></td>
<td>Received only 1 dose of study medication and was lost to follow-up</td>
</tr>
<tr>
<td>4</td>
<td>63</td>
<td>Severe</td>
<td>Moderate</td>
<td>24</td>
<td>21</td>
<td>23</td>
<td>18</td>
<td>23</td>
<td>URI</td>
<td>After 3 doses of the study medication patient discontinued because of migraine headaches</td>
</tr>
<tr>
<td>5</td>
<td>18</td>
<td>Moderate</td>
<td>Moderate</td>
<td>18</td>
<td>12</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>Migraine headaches, URI</td>
<td></td>
</tr>
</tbody>
</table>

*HS*, Hidradenitis suppurativa; *URI*, upper respiratory infection.
fistulae, and draining sinuses located in the intertrig- 
nous regions. Each patient was required to have 12 total lesions at baseline.

Only 2 of the 5 patients completed a full 12-week course of therapy. Regardless, none of the patients derived clinical benefit from the therapy (Table I). Specifically, patient 1 experienced a worsening of disease that required antibiotic therapy and withdrew from the study after 8 weeks of treatment. Patient 2 displayed a worsening of disease activity through 12 weeks of therapy. Approximately 12 weeks after her last efalizumab injection she was given the diagnosis of ductal carcinoma of her left breast and underwent a lumpectomy. We assessed the malignancy as possibly related to the study medication. No other treatment for the malignancy was required. Patient 3 received one efalizumab injection but was lost to follow-up. Patient 4 received a complete 12 weeks of treatment and displayed no improvement in her condition. Patient 5 was hospitalized overnight for a severe migraine headache one day after her first injection of efalizumab. She had a long history of migraine activity that was well-controlled before the study. She continued to experience headaches daily after her hospital discharge, yet elected to continue on the study, receiving two more doses of efalizumab before deciding to withdraw from study because of continuing headaches that resolved after discontinuing efalizumab. None of the 5 patients displayed either an abnormality or significant alteration in any laboratory value.

Hidradenitis suppurativa is a chronic, inflammatory disease of the apocrine sweat glands, primarily affecting the intertriginous areas. Severe, refractory disease often requires surgical management, systemic corticosteroids, or other immunosuppressive therapies. Systemic retinoids have been helpful in some patients, but remission is infrequent. Safer, effective, and long-term therapies currently are under examination. For example, an examination of finasteride showed promise in a small pilot study. Tumor necrosis factor-α-inhibiting medications such as infliximab, adalimumab, and etanercept also have been reported to successfully treat hidradenitis suppurativa. Most recently, short-contact aminolevulinic acid-photodynamic therapy therapy using a blue light for activation has been reported as effective. Our study demonstrates that efalizumab may be ineffective in the treatment of women with severe, treatment-refractory hidradenitis suppurativa. The negative results of this study may indicate that the pathophysiology of hidradenitis suppurativa is not dependent on either T-cell activation or T-cell migration to sites of inflammation. But the small population of patients enrolled and treated necessarily limits any definitive conclusions about the origin of this complex disease.

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Genentech Inc provided the medication efalizumab and partially funded the study.
Disclosure: Dr Strober has acted as a speaker, advisor, consultant, and/or investigator for Abbott, Amgen, Astellas, Genentech, Centocor, Novo Nordisk, and Wyeth. Drs Kim and Siu have no conflicts of interest to declare.

Reprints not available from the author.
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REFERENCES

doi:10.1016/j.jaad.2007.07.032

NOTES & COMMENTS

**Sun protection fun: An educational outreach initiative by a dermatology interest group**

*To the Editor:* We read with interest the study by Irwin et al regarding the SkinSAT program, which educates middle- and high-school students about sun protection and acne. We agree on the difficulty in conveying the importance of daily sun protection for skin cancer prevention to the general public, and