Comment. In the present report, we have categorized our findings into 3 groups. The first, nonspecific cutaneous signs and disorders (Table), has already been reported in association with SM exposure as late skin findings. However, owing to lack of a control group in the present descriptive study, and also the multifactorial causes of these disorders, correlation of them with exposure to SM could not be confirmed. Nonetheless, the higher incidence compared with the normal population is noteworthy.3

We also found SM scars, with their special pigmentation, trophic, and vascular changes, to be specific lesions somehow different from other burn scars. They were usually localized and had ill-defined borders, areas of hyperpigmentation and depigmentation beside each other (localized leukomelanoderma), reticular atrophic and hypertrophic areas with islands of normal-appearing skin, and occasional cherry angiomas and telangiectasias.

Finally, 9 patients in our study developed cutaneous malignant neoplasms several years after SM exposure.4 Since SM is an alkylating agent and DNA is one of SM’s most sensitive targets, it is not surprising that carcinogenesis and radiomimetic effects were seen. To date, the number of cutaneous cancers reported subsequent to acute and chronic SM exposure is low, and it is unclear whether some of these cutaneous neoplasms are related to the carcinogenic effects of SM or are related to the presence of chronic skin ulcers and scars.2

In conclusion, there may be a causal relationship between acute and severe exposure to SM and hyperpigmentation, depigmentation, chronic skin ulceration, scar formation (with specific features of pigmentation, trophic, and vascular changes), and development of skin cancer.

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6. Iranian Ministry of Health and Medical Education. The Annual Report of Iranian National Cancer Registration. Tehran, Iran: Ministry of Health and Medical Education; 2004:35.

Quality of Life and Disease Severity in a Cutaneous Lupus Erythematosus Pilot Study

As part of a study to evaluate the clinical responsiveness of the cutaneous lupus area and severity index (CLASI), we assessed the relationship between the change in cutaneous lupus erythematosus (CLE) disease severity and quality of life (QOL).

Methods. Activity and severity of CLE were assessed by the physician using the CLASI1 and by the patient and physician using a 0 to 10 analog scale to rate global skin health. Quality of life was measured using the Skindex-29.2

We prospectively observed 8 patients with biopsy-proven CLE (6 with discoid lupus erythematosus [DLE] and 2 with subacute cutaneous lupus erythematosus [S克莱]) for 56 days after they started new treatment regimens. At each visit, patients completed the CLE-modified Skin-29, which included 3 questions beyond the previously validated Skin-29. Two of the additional questions related to patient concerns about photosensitivity, and 1 related to patient concerns about hair loss.

Results. The results of our study were surprising in that QOL did not easily correlate with improvement or deterioration of the disease. We found a moderate correlation between the change in CLASI activity scores and the change in Skin-29 quality-of-life scores. In patients 4 and 6, who had SCLE, the complete resolution of the active disease without significant scarring was associated with only minimal improvement in Skindex-29 scores (Table). In patient 3, there was moderate improvement of the Skin-29 score even though the skin condition as measured by the CLASI did not significantly improve. Although there was improvement of disease activity in patient 2, there was increased damage and worsening of the Skin-29 score. The improved disease activity in patients 7 and 8 correlated with an improved Skin-29 score despite a worsening of the damage score. Only patients 1, 5, and 6 had both the CLASI and Skin-29 score correlate as expected with parallel improvement of both scores.
Table. Disease Severity and Activity Ratings and Quality of Life Scores

<table>
<thead>
<tr>
<th>Patient No.</th>
<th>Diagnosis</th>
<th>Day</th>
<th>CLASI Activity</th>
<th>CLASI Damage</th>
<th>Skin Health Patient</th>
<th>Skin Health Physician</th>
<th>Skindex-29 Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DLE/SLE</td>
<td>0</td>
<td>49</td>
<td>44</td>
<td>1</td>
<td>3</td>
<td>68</td>
</tr>
<tr>
<td>2</td>
<td>DLE</td>
<td>56</td>
<td>19</td>
<td>35</td>
<td>7</td>
<td>7</td>
<td>141</td>
</tr>
<tr>
<td>3</td>
<td>DLE</td>
<td>0</td>
<td>8</td>
<td>15</td>
<td>7</td>
<td>5</td>
<td>74</td>
</tr>
<tr>
<td>4</td>
<td>SCLE</td>
<td>56</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>0</td>
<td>68</td>
</tr>
<tr>
<td>5</td>
<td>DLE/SLE</td>
<td>0</td>
<td>23</td>
<td>10</td>
<td>3</td>
<td>6</td>
<td>152</td>
</tr>
<tr>
<td>6</td>
<td>SCLE</td>
<td>56</td>
<td>17</td>
<td>0</td>
<td>3</td>
<td>7</td>
<td>77</td>
</tr>
<tr>
<td>7</td>
<td>DLE</td>
<td>0</td>
<td>28</td>
<td>25</td>
<td>2</td>
<td>6</td>
<td>96</td>
</tr>
<tr>
<td>8</td>
<td>SCLE</td>
<td>56</td>
<td>19</td>
<td>33</td>
<td>5</td>
<td>4</td>
<td>87</td>
</tr>
</tbody>
</table>

Abbreviations: CLASI, Cutaneous Lupus Area and Severity Index; DLE, discoid lupus erythematosus; SCLE, subacute cutaneous lupus erythematosus; SLE, systemic lupus erythematosus.

*Rated by analog score (0-10).

Comment. This small monocentric study cannot validate or devalue the Skindex-29 as a measure for QOL in CLE. The correlation between what physicians and patients perceive as objective improvement or deterioration of a skin condition may not correlate with the patient’s QOL. Our observations may imply that our treatment goals should extend beyond the obvious control of the disease, which is reliably measured by the CLASI. Quality of life does not uniformly improve as the activity of the disease wanes. This may mean that attention to cosmetic outcomes may need to become a routine part of our treatment plans for patients with CLE.

For future trials, cosmetic considerations will affect power calculations based on QOL outcomes. In addition, analysis of our additional lupus-oriented questions indicates that patients with SCLE have a persistent concern about photosensitivity after disease activity and damage improve. It is likely that the risk of subsequent flares of their disease in response to outdoor activity reduces their QOL even though disease activity has improved.

Clearly, QOL is tremendously impaired in patients with CLE, and measurements of disease improvement will not always correlate with measures directed at QOL.

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Characteristics of Patients With Universal Vitiligo and Health-Related Quality of Life

Little is known about universal vitiligo, a rare type of vitiligo in which more than 80% of the skin is depigmented. We do not know whether patient characteristics differ from those in the more common types of vitiligo. Moreover, nothing is known about health-related quality of life (HRQOL) in these patients. The aims of this study were to describe characteristics and HRQOL of patients with universal vitiligo and to compare these with the characteristics and HRQOL of patients with general vitiligo.

Methods. All adult patients (>18 years) having universal vitiligo diagnosed at the Netherlands Institute for Pig-