Cutaneous disease is associated with higher early systemic lupus disease activity

Aaron M Drucker, MD¹, Farheen Mussani, MD², Dominique Ibañez, MSc³, Sanjay Siddha, MD¹, Dafna D Gladman, MD³ and Murray B Urowitz, MD³

1. Division of Dermatology, University Health Network, Toronto, Canada
2. Division of Dermatology, University of Toronto, Toronto, Canada
3. Lupus Clinic, Centre for Prognosis Studies in the Rheumatic Diseases, University Health Network, Toronto, Canada

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Background

• Discoid lupus erythematosus (DLE) in patients with systemic lupus erythematosus (SLE) may be associated with less severe systemic disease
  – DLE patients may be less likely to have renal disease\textsuperscript{1-3}
• Santiago-Casas et al: SLE cohort study (n=2,228)\textsuperscript{4}
  – DLE associated with \textit{increased} organ damage accrual
  – DLE associated with a decreased incidence of end-stage renal disease
• Wieczorek et al: cohort of 77 chronic and subacute cutaneous lupus (SCLE) patients without SLE\textsuperscript{5}
  – 13 went on to develop SLE, with only 5/13 developing moderate to severe systemic disease
Objective

- To compare baseline systemic disease activity around the time of onset of SLE in patients with and without cutaneous lupus erythematosus (CLE)
Methods

• Toronto Lupus Clinic – prospective SLE cohort study since 1970
  – Records presence of skin disease:
    • DLE
    • Malar rash
    • Subacute cutaneous lupus erythematosus
    • “Other” lupus rashes
• We used data from the “inception cohort”
  – Patients first seen in the clinic within 1 year of diagnosis of SLE
• Comparison groups:
  – Patients with CLE at inception vs.
  – Patients who never developed CLE
• Primary outcome: Systemic Lupus Erythematous Disease Activity Index 2000$^6$ score excluding rash (SLEDAI-2K-ER) at inception
Results

Inception cohort (n=764)

Developed CLE later (n=187; 24.4%)

Never developed CLE (n=284; 37.1%)
- DLE (n=65)
- Malar (n=175)
- SCLE (n=16)
- Other (n=117)

CLE at inception (n=293; 38.3%)

Excluded (n=65)
## Results

<table>
<thead>
<tr>
<th>Group</th>
<th>SLEDAI-2K-ER (Mean +/- SD)</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never developed CLE</td>
<td>8.5 ± 7.7</td>
<td></td>
</tr>
<tr>
<td>CLE at inception</td>
<td>10.2 ± 8.7</td>
<td>0.01</td>
</tr>
<tr>
<td>DLE at inception</td>
<td>8.5 ± 7.9</td>
<td>0.99</td>
</tr>
<tr>
<td>Malar at inception</td>
<td>10.6 ± 9.1</td>
<td>0.01</td>
</tr>
<tr>
<td>SCLE</td>
<td>12.5 ± 10.4</td>
<td>0.06</td>
</tr>
<tr>
<td>Other</td>
<td>10.8 ± 9.0</td>
<td>0.01</td>
</tr>
</tbody>
</table>

Table 1. Comparison of baseline SLEDAI-2K-ER scores in patients who never developed CLE and patients with CLE at inception.
Discussion

• CLE is associated with increased baseline SLE disease activity
  – Significant for malar and “other” lupus rashes
  – Trend to significance for SCLE

• DLE is associated with similar baseline SLE disease activity compared to patients without CLE

• The perception that cutaneous disease is associated with less severe systemic disease activity may be erroneous, at least with regards to initial disease activity
Future directions

• What is the impact of CLE on SLE disease activity over time?
• What is the impact of CLE on damage accrual in SLE?
References


