as first-line therapy, and 8 (group 2) received R-PCT as second-line therapy for refractory skin lesions (n=5) or visceral dissemination (n=3) to the central nervous system (case 21), lung and bone (case 22), or bone marrow and mesenteric nodes (case 16). The R-PCT was R-ACVBP (doxorubicin, cyclophosphamide, vindesine, bleomycin, and prednisone) in 1 case, a standard R-CHOP regimen in 14 cases, an R-CHOP regimen with lower doses (R-miniCHOP) in 7 cases, and a less intensive R-PCT without anthracycline in 4 cases.

All 17 patients in group 1 and 6 of 8 in group 2 achieved a complete response, but 10 experienced relapse in the skin (n=8), the skin and lymph nodes (n=1), or the central nervous system (n=1). Four patients had multiple successive cutaneous relapses. Treatment of relapses included surgery (1 case), radiotherapy (4 cases), rituximab (1 case), ibritumomab tiuxetan (1 case), and/or various chemotherapies (4 cases). No patient was lost to follow-up. After a 33-month median follow-up, 20 patients were alive (including 13 in complete remission), 3 had died of lymphoma, and 2 had died of unrelated causes. The 3-year disease-specific survival rate was 87%.

Nine patients (36%) had at least 1 grade 3 or higher adverse event, including grade 3 (n=2) or grade 4 (n=5) neutropenia, grade 4 thrombocytopenia (n=1), grade 4 neutropenic sepsis (n=1), grade 3 cardiac failure (n=1), grade 3 pneumonia (n=1), and grade 3 venous thrombosis (n=1; this patient had a catheter). One patient died of neutropenic septicemia.

These 25 patients treated with R-PCT were compared with a historic series of 47 patients with PCLBCL-LT who received other therapies only, as detailed in a previous study. The 2 groups did not differ by classic prognostic factors, including age (median ages, 76 vs 78 years) (P=.30), location of skin lesions, clinical stage at diagnosis, performance status, or lactic dehydrogenase level. However, the percentage of patients who achieved a complete response (92% vs 64%) (P=.01) and the 3-year specific survival rates (87% vs 50%) (P=.004) were much higher in patients treated with R-PCT.

Comment. We report for the first time to our knowledge a complete response rate greater than 90% and a 3-year survival rate greater than 80% in patients with PCLBCL-LT. Despite the retrospective design of the study, these results and the comparison with a historic series of patients treated earlier with other therapies only strongly suggest that the prognosis of these life-threatening lymphomas may be dramatically improved by the use of age-adapted R-PCT. Response and survival rates in our patients were higher than those reported in elderly patients with DLBCL treated with standard R-CHOP, suggesting that PCLBCL-LT could in fact be less aggressive than their systemic counterparts. Patients older than 80 years (n=9; 36%) and those with a poor general condition received less-intensive R-PCT with overall favorable results. Main adverse events in the entire series were neutropenia and consecutive infections, suggesting that granulocyte-colony stimulating factor should be systematically used when treating PCLBCL-LT with R-PCT, as recommended in at-risk elderly patients with DLBCL. Recurrences were frequent but were of ten limited to the skin and were responsive to subsequent treatments. These data provide a basis for prospective clinical trials. Further studies could compare standard R-CHOP to less intensive R-PCT and/or investigate the optimal number of R-PCT cycles and the role of a maintenance therapy with rituximab to prevent recurrences.

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Ultrasound Therapy for Lipodermatosclerosis

L ipodermatosclerosis (LDS) consists of lower-leg inflammation and woody induration in patients with chronic venous or lymphatic hypertension. Acute LDS may be painful and is frequently misdiagnosed as cellulitis. While compression stockings may be helpful, therapeutic options are limited. Ultrasound treatment of LDS was reported once more than 25 years ago; we now report 16 legs treated with this technique.
Methods. After we received approval from Sydney South West Area Health Service and Sydney University Ethics Committees, all patients provided written informed consent.

We used 3-MHz continuous ultrasound (US3M; TGS Electronics Pty Ltd, New Gisborne, Australia) thrice weekly for 4 to 8 weeks, commencing at 0.7 W/cm² (5 minutes per 50-cm² area) and increased to 1 to 1.5 W/cm² for 8 minutes. All patients were instructed to wear grade 2 compression stockings (30-40 mm Hg). For patients treated later in the series, a durometer (Rex Gauge Company, Buffalo Grove, Illinois) was used to measure skin hardness, and a reflectance erythema meter (DiaStron, Hampshire, England) measured redness. Measures were taken in triplicate at treated and adjacent “background” skin sites.

Results. We treated 10 women and 1 man (mean age, 61 years; age range, 46-79 years) with LDS present for an average of 5 years (range of disease duration, 3 months to 21 years). Since 5 patients had bilateral disease, 16 legs were treated (2 acute and 14 acute-on-chronic LDS). Ten patients (14 legs) were overweight or obese (mean body mass index, calculated as weight in kilograms divided by height in meters squared, 31; range, 23-39); 5 legs had previous venous thrombosis; 7 legs were of diabetic patients; and 10 legs had demonstrated venous incompetence. Given the risks of infection and nonhealing in these compromised legs with classic LDS, biopsies were not routinely performed. Five patients regularly wore compression stockings at enrollment (8 legs); 4 refused to wear stockings (5 legs); and only 2 commenced wearing stockings during their ultrasound treatment (3 legs).

Four legs were treated for 4 weeks and 12 for 8 weeks. Of the 13 legs with durometer measures, 10 showed reduced hardness (mean reduction in hardness, 60%) (Figure, A). Erythema was reduced by 46% in 7 of the 9 legs with erythema indices (Figure, B). In 2 patients without measurements, all treated areas subjectively improved in tenderness, erythema, and hardness. Overall, in all but 3 cases the LDS substantially improved or resolved, and in many cases pain and tenderness were markedly reduced within 2 weeks. Of the 3 patients who showed no substantial improvement, 1 had severe venous incompetence in each treated leg, and 2 refused to wear stockings. No adverse effects occurred.

Comment. In our patients with LDS, many for a long duration, ultrasound treatment significantly reduced hardness and erythema and rapidly alleviated symptoms. These results are unlikely due to compression alone: all but 2 of our patients were either already using compression stockings at presentation (without improvement) or refused to wear stockings.

The mechanisms of ultrasound therapy’s effects on LDS are unclear but might reflect the known immunomodulatory and anti-inflammatory effects of infrared radiation, which also upregulates collagen-degrading matrix metalloproteinase. Ultrasound therapy might thus help to reverse both the fibrotic and inflammatory changes of LDS. Ultrasound equipment is readily available through physiotherapy departments, where it is routinely used to treat soft-tissue injuries. It is portable and relatively inexpensive, and this simple, safe treatment may offer substantial improvement for an otherwise painful and refractory condition.

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Dermatologists support public education campaigns using photographic references of nevi and melanoma, and they distribute brochures with these images to their patients in the belief that such images teach people to self-detect changing nevi and melanomas. Photographic images of melanomas optimize people’s spontaneous image recognition. After the initial review, it is unclear how reference materials are used. We explored the use of educational material by people at risk to develop melanoma.

Methods. The study population, composed of 174 participants with melanoma and their cohabitating partners, was randomized into either the dyadic (couple) or single learning condition of an educational intervention to learn skin self-examination (SSE). Specifics on the inclusion and exclusion criteria and the intervention have been published. Briefly, at the initial visit, subjects participated in a demonstration of the ABCDE rule (asymmetry, border irregularity, color variegation, diameter ≥6 mm, and evolution), and a 15-minute SSE skills training session with quiz questions. They were given an enabling kit consisting of the ABCDE card, a lighted hand magnifying glass, and a millimeter ruler.

At the 4-month follow-up visit, the research assistant (S.O.) asked a series of questions regarding use of the ABCDE card. Frequency of checking the card (daily, 2-3 times per week, once per week, once per month, 1-2 times since received card, never) and the storage location of the card were ascertained. The institutional review boards of Dartmouth-Hitchcock Medical Center and Northwestern University approved the research protocol. Statistical findings were determined by χ² analysis.

Results. There was no difference in the demographic characteristics of age, sex, education, income, and marital status between the dyadic (n=92) and the single (n=82) learning conditions. Use of the illustrated card was associated with dyadic learning (*P = .03*) (Table). Of the 86 participants who never used the card, 84% indicated that they did not need it as they “got it” during the training session (n=72). The cards were stored in the following locations: bedroom (n=56), bathroom (n=27), kitchen drawer (n=21), and living room (n=2). Sixty-eight participants did not know where the card was located. Cards stored in bedrooms and bathrooms were referred to more than those stored in other locations (*P = .02*). For those in the single learning condition, the most common reason for referring to the card was to show the partner what to check (n=25). For those in the dyadic learning condition, the card was used to check the color variation.

Comment. Recognizing a melanoma requires associating the image with the model of a melanoma stored in the visual memory. Models are constructed from our visual experience. People cannot recognize things that they have not seen before; however, having seen a melanoma once during supervised learning, people create a visual model.

People in our study used the reference material once to help the partner create a model of a melanoma in his or her memory. Some referred to the ABCDE card images to help check color variation and added this information to their global visual model. Since people did not use the reference material to check border irregularity or diameter, it may be inferred that these parameters are more easily understood and incorporated into the learner’s visual memory. Many did not need to use reference materials.

The intervention used active learning by performing exercises with a millimeter ruler to demonstrate measuring the diameter and a lighted magnifying lens to identify the border and colors of a mole. The findings from this research using active learning of skills cannot be generalized to patients who are asked to learn passively by reading a magazine or a brochure given to them by a physician.

As dermatologists consider resource allocation for patient education, it behooves us to adopt ways that may be more beneficial to the patient. Having a patient use a ruler to measure a mole and a magnifying lens with nurse supervision may be more efficient in eliciting behavioral change than distributing color brochures to patients. Furthermore, having the patients practice using their own nevi may increase the relevance of the ABCDE materials. Finally, the images of melanomas used in learning materials are often of advanced cases to illustrate all of the features, but these more extreme images may be frightening or confusing to patients. Patients appear to internalize the concept of checking for change in a mole by viewing examples of nevi with 1 or 2 features.

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Table. Checking the ABCDE Card

<table>
<thead>
<tr>
<th>Learning Condition (N=174)</th>
<th>Frequency of Referring to ABCDE Card</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>1 Time/wk</td>
</tr>
<tr>
<td>Dyadic (n=92)</td>
<td>2</td>
</tr>
<tr>
<td>Single (n=82)</td>
<td>1</td>
</tr>
</tbody>
</table>

Abbreviation: ABCDE, asymmetry, border irregularity, color variegation, diameter 6 mm or larger, and evolution.