

included were otherwise given the hospital's standard discharge summary. Follow-up compliance rates for keeping appointments were compared over the 1-year periods before and after the implementation.

Of the 100 consults included, 57.0% were women with a mean age of 63.3 (standard deviation, 19.7) years. In line with previous studies,^{2,3} our consultations had a significant impact on the inpatient management of skin conditions, changing the diagnosis and treatment plan in 69% and 83% of cases, respectively (Table I). Multivariate regression analysis showed that patients given the dermatology-specific discharge form were more likely to follow-up compared with consult patients before this implementation (60.4% vs 21.2%; risk ratio, 2.25; 95% confidence interval, 1.18-4.28; $P = .004$). Patients with an acute flare of a chronic condition (compared with an acute new condition) were also more likely to follow-up (risk ratio, 2.11; $P = .003$), whereas there was no statistically significant difference in follow-up rates based on age or sex (Table II).

Improved outpatient follow-up compliance rates with use of a dermatology-specific discharge form may be due to improved accuracy and specificity of dermatology information provided to patients upon discharge. One possible contributing factor is that the form is designed to be completed by the consulting dermatologist, as one study found that the accuracy rate of dermatology documentation in hospital discharge summaries completed by nondermatologists was only 54.5%.⁴

The study is limited by its retrospective nature and generalizability given the implementation at a single community-based academic medical center. Although patients in the intervention group had reduced all-cause 30-day hospital readmission rates (6.9% vs 9.2%, $P = .03$), it is beyond the scope of this study to correlate this with the higher rates of clinic follow-up. Future studies evaluating use of a dermatology-specific discharge form as a mechanism for reducing readmission rates of inflammatory skin conditions are warranted.

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Outcome and clinicphenotypical features of acute lymphoblastic leukemia/lymphoblastic lymphoma with cutaneous involvement: A multicenter case series



To the Editor: Cutaneous involvement by acute lymphoblastic leukemia/lymphoblastic lymphoma (ALL/LBL) is very uncommon. Current knowledge of this situation remains limited, based on small retrospective case series without data regarding overall survival (OS) and associated prognostic factors nor molecular features.¹⁻³ Besides, no data about differential antigen expression of tumoral cells in skin vs bone marrow are available.

Our objective was to describe outcome, prognostic factors, and clinicphenotyping specificities of ALL/LBL with skin involvement. We collected retrospective data from a multicenter cohort of patients with ALL/LBL with cutaneous involvement from 13 hospitals from 1997 to 2018.

Patients' characteristics are listed in Table I. Among 38 patients with ALL/LBL (12 females, 26 males),

Table I. Clinical, follow-up, and pathologic features of the cohort

Variables*	All patients	B-ALL/LBL	T-ALL/LBL	P
Clinical data				
Sex	38	17	21	.307
Female	12 (32)	7 (41)	5 (24)	
Male	26 (68)	10 (59)	16 (76)	
Age at diagnosis	38	17	21	.018
Median (range), y	22 (0-94)	8 (0-72)	32 (1-94)	
Child (<18 y)	14 (37)	10 (59)	4 (19)	
Adult	24 (63)	7 (41)	17 (81)	
Onset of skin lesions	36	17	19	.168
Before hematologic diagnosis	11 (31)	6 (35)	5 (26)	
At the hematologic diagnosis	13 (36)	4 (24)	9 (48)	
After hematologic diagnosis	8 (22)	3 (18)	5 (26)	
No hematologic involvement	4 (11)	4 (23)	0 (0)	
Number of skin lesions	38	17	21	<.001
Single	13 (34)	11 (65)	2 (10)	
Multiple	25 (66)	6 (35)	19 (90)	
Type of skin lesions	38	17	21	.483
Nodule/tumor	32 (84)	15 (88)	17 (81)	
Macule/patch	6 (16)	1 (6)	5 (24)	
Other	4 (11)	1 (6)	3 (14)	
Topography of skin lesions	37	17	20	.743
Head and neck	20 (54)	10 (59)	10 (50)	
Other	17 (46)	7 (41)	10 (50)	
Extension of ALL/LBL	34	16	18	.005
Lymphoma	9 (26)	1 (6)	8 (44)	
Leukemia	21 (62)	11 (69)	10 (56)	
Skin lesions only	4 (12)	4 (25)	0 (0)	
Follow-up data				
Follow-up, mean (range), mo	36 (1-130)	38,5 (6-130)	25 (1-123)	
First-line treatment	29	13 [†]	16	
Radiotherapy	0	0	0	
Standard induction polychemotherapy	29 (100)	13 (45)	16 (55)	
Complete remission during follow-up	27	13	14	>.99
Yes	24 (88)	12 (92)	12 (86)	
No	3 (12)	1 (8)	2 (14)	
Relapse	27	13	14	>.99
Yes	12 (44)	6 (46)	6 (43)	
No	15 (56)	7 (54)	8 (57)	
Status at the end of the follow-up	30	14	16	.483
Alive	17 (57)	9 (64)	8 (50)	
Dead	13 (43)	5 (36)	8 (50)	
Pathologic data				
Cell size	32	15	17	.418
Small/medium (n = 3)	7 (22)	3 (20)	4 (24)	
Medium (n = 13)	16 (50)	6 (40)	10 (59)	
Medium/large (n = 4)	9 (28)	6 (40)	3 (17)	
Localization of the infiltrate	34	15	19	>.99
Dermis	25 (74)	11 (73)	14 (74)	
Dermis/Hypodermis	9 (26)	4 (27)	5 (26)	
Immunohistochemical markers				
CD20	32	7+/15	0+/17	
CD79a	20	15+/16	0+/4	
CD3	29	0+/10	17+/19	
CD2	12	0+/1	8+/11	
CD5	20	1+/7	10+/13	

Continued

Table I. Cont'd

Variables*	All patients	B-ALL/LBL	T-ALL/LBL	P
CD7	13	1+/2	9+/11	
CD1a	14	0+/2	4+/12	
CD10	31	16+/16	8+/15	
TDT	30	14+/16	13+/14	
CD34	21	7+/11	3+/10	
CD99	11	4+/7	4+/4	
Ki67, median (range), %	90 (40-100)	90 (70-100)	90 (40-100)	

ALL, Acute lymphoblastic leukemia; LBL, lymphoblastic lymphoma; No., number.
 *Categorical data are presented as number (%) and continuous data as indicated.
 †Including all patients cases with skin lesions only.

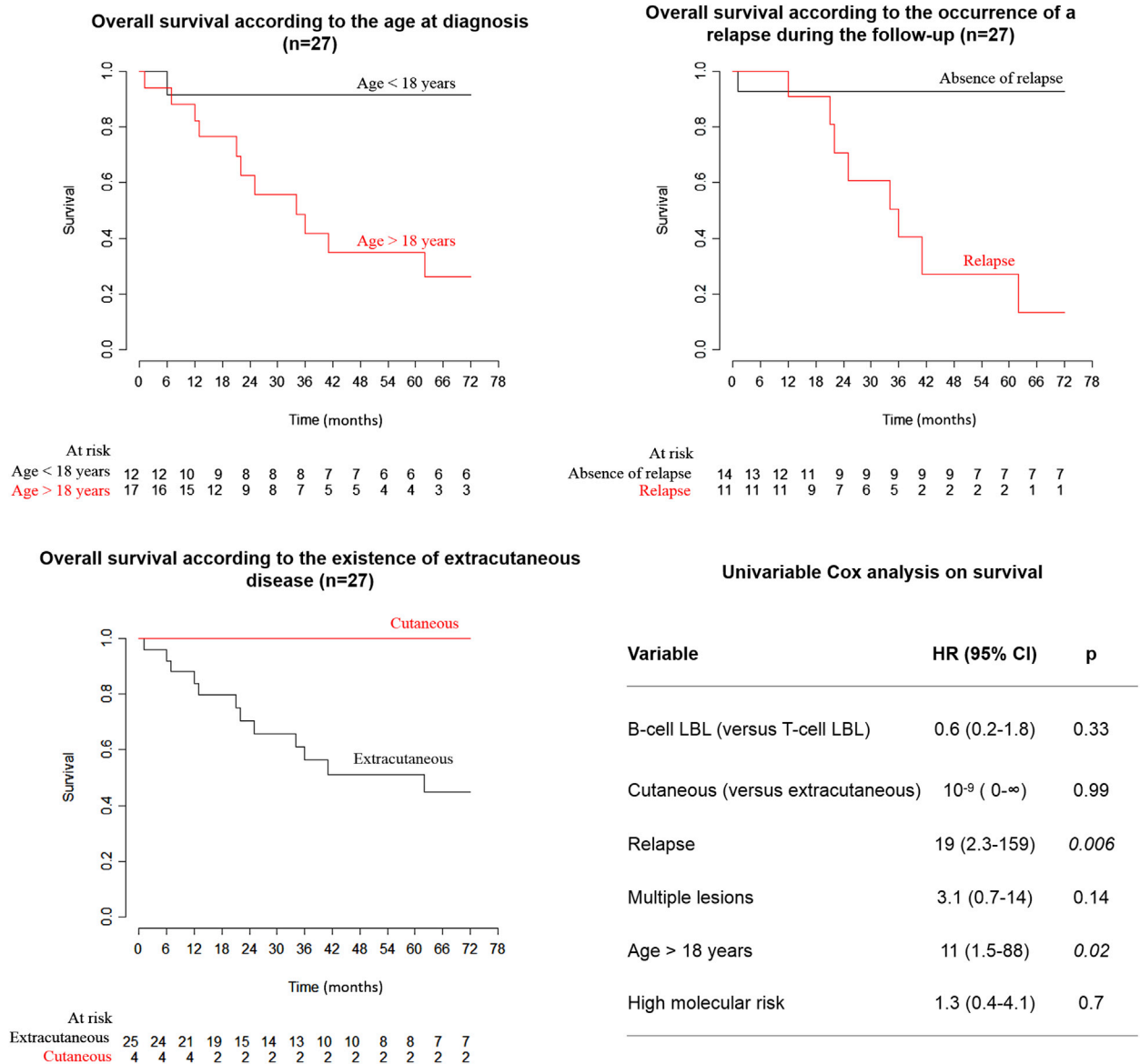


Fig 1. Kaplan-Meier probabilities and univariate Cox analysis on prognostic factors of overall survival for patients with acute lymphoblastic leukemia/lymphoblastic lymphoma (LBL) and skin involvement (n = 27). CI, Confidence interval; HR, hazard ratio.

17 were B-ALL/LBL and 21 were T-ALL/LBL. Median age at diagnosis was 22 years (range, 0-94 years). Complete follow-up was available for 27 patients, and median follow-up was 36 months (range, 1-130 months). The 5-year OS was 56% (95% confidence interval, 39%-79%). On univariate analysis for OS, an association for reduced OS was found for adulthood (hazard ratio, 11; 95% confidence interval, 1.5-88; $P = .02$) and relapse (hazard ratio, 19; 95% confidence interval, 2.3-159; $P = .006$) during follow-up, whereas all patients with isolated skin lesions were alive at the end of follow-up regardless of phenotype or molecular risk stratification (Fig 1).⁴

The analysis of differential antigen expression in skin vs bone marrow was performed in 9 patients and showed only 1 adult man with T-ALL with unequivocal discordant expression (Supplemental Table I, available via Mendeley, <https://doi.org/10.17632/5b38d3v62c.2>). Terminal deoxynucleotidyl transferase was negative in bone marrow flow cytometric analysis and positive in cutaneous immunohistochemical staining. Also, 2 patients with B-ALL with minimal discordant antigen expression in skin were interpreted as very weak positivity in immunohistochemistry, suggesting that thresholds to consider positivity may differ according to the technique and may explain the discrepancy.

Clinically, a solitary skin lesion was found in 65% of patients with B-ALL/LBL whereas 90% of patients with T-ALL/LBL had multiple skin lesions ($P < .001$) (Supplemental Figs 1 and 2, available via Mendeley <https://doi.org/10.17632/5b38d3v62c.2>). In 31% of patients, the skin lesions appeared before the hematologic diagnosis (median, 2.5 months). It is worth noting that 4 patients had skin lesions only, without extracutaneous involvement, and were mostly children with B-LBL. Cytogenetic and oncogenetic analyzes showed known ALL/LBL alterations without specific pattern (Supplemental Table II, available via Mendeley, <https://doi.org/10.17632/5b38d3v62c.2>).

Cutaneous involvement by ALL/LBL does not seem to portend a poor prognosis by itself. Only adulthood and relapse during follow-up were associated with reduced OS. We emphasized that phenotypic changes of leukemic cells in skin compared with those in bone marrow seem to be rare events in ALL/LBL with cutaneous involvement, unlike what is known in acute myeloid leukemia.⁵ Clinically, skin lesions can reveal the hematologic disease, and considerations regarding their aspects should be made for diagnosis, especially for solitary scalp masses in pediatric patients.

This series is limited by the extended period of inclusion, implying heterogeneous treatments that might affect outcome findings. However, our cohort is, to our knowledge, the largest case series reported so far, providing new insights on ALL/LBL with skin involvement. Further studies are needed to fully understand and improve the management of this rare disease.

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Ethnicity impact on skin cancer knowledge and quality of life in patients with skin cancer: A survey-based study of white Hispanics and white non-Hispanics



To the Editor: Nonmelanoma skin cancer (NMSC) is the most common malignancy in the United States, with its prevalence exceeding that of all other human cancers combined.¹ Although rarely fatal, NMSC can often negatively affect a patient's quality of life (QoL).² To combat this significant public health burden, disseminated skin cancer prevention guidelines include avoiding midday sun exposure, seeking shade, sunscreen application, avoiding tanning beds, and wearing sun-protective clothing. However, patients poorly adhere to these recommendations, and public knowledge regarding skin cancer remains limited. Moreover, evidence suggests that racial/ethnic disparities in NMSC exist, and to date, correlations between QoL and patient characteristics have not been well established. In this study, we investigate how several factors, including patient demographics and sun-health knowledge, are associated with sun-safe behaviors and QoL after NMSC diagnosis.

We conducted an institutional review board–approved, survey-based study at the University of Miami Department of Dermatology. Data were collected on patient demographics, skin cancer risk factors, sun exposure, sun-protective behaviors, skin cancer knowledge, and skin cancer QoL (SCQoL). Patients aged 18 to 90 years undergoing Mohs surgery were recruited. Continuous and categorical variables were analyzed with the Student *t* test and Pearson chi-square test or Fisher exact test, respectively. One-way analysis of variance compared skin cancer knowledge and SCQoL scores by ethnicity. All tests were 2-tailed, and a *P* value of less than .05 was considered statistically significant. Statistical analyses were completed using JMP Pro, version 14.2.0 (SAS Institute Inc, Cary, NC).

Survey data from 175 consecutive participants were analyzed (73.7% men; mean age, 67.0 ± 12.3 y; range, 36-96 y). The majority (66.3%) identified as white non-Hispanic, and 33.1% identified as white Hispanic (WH). When compared to white non-Hispanic participants, white Hispanic