



SKIN MANIFESTATIONS OF INTERNAL DISEASE

LEUKEMIA CUTIS - VARYING PRESENTATIONS AND IMPACT ON OVERALL SURVIVAL

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Background: Leukemia cutis (LC) is an important, yet under-studied, cutaneous manifestation of leukemia. It can present with varying morphologies.

Objective: To identify patient factors associated with LC and characterize LC as a prognostic factor in acute myeloid leukemia (AML).

Methods: Medical records of patients with LC who were diagnosed with leukemia at Barnes Jewish Hospital between 1/01/2005-4/01/2017 were reviewed retrospectively. For the subgroup of LC patients with AML, a propensity score matched analysis was performed by matching to AML patients without LC. Kaplan-Meier methods and Cox regression were used to examine survival disparities.

Results: 95 total patients with LC were reviewed, with 62 patients with LC of AML differentiation matched to 186 AML patients without LC. The most common types of LC lesions were nodules (56.6% of LC episodes), papules (43.4%), and plaques (22.6%), with many patients presenting with multiple lesions of varying morphology. Lesions were commonly located on the lower extremities (involvement in 50.0% of episodes), upper extremities (38.5%), back (37.6%), chest (34.9%), and abdomen (31.2%). Matched survival analysis revealed that AML patients with LC, compared to those without LC, had hazard ratios of leukemia-specific death and all-cause death of 2.06 (95% CI 1.26-3.38, P=0.004) and 1.66 (95% CI 1.06-2.60, P=0.027), respectively. Additionally, matched LC patients had greater odds of extramedullary organ burden (OR 3.48, P<0.001).

Limitations: The study was retrospective and restricted to a single center.

Conclusions: The results suggest that the presentation of LC in AML patients may be a poor prognostic factor and have a negative impact on overall survival and leukemia-specific survival. The most common presentation of LC was that of nodules, most commonly affecting the extremities and trunk.

