SKIN CANCER (OTHER THAN MELANOMA)

REVIEW OF BLOOD-CLASSIFICATION PROPOSED BY THE NATIONAL CANCER CENTER NETWORK VERSUS THE EUROPEAN ORGANIZATION FOR RESEARCH AND TREATMENT OF CANCER IN MYCOSIS FUNGOIDES AND SÉZARY SYNDROME

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Background: Blood tumor burden in Mycosis Fungoides (MF) and Sézary Syndrome (SS) has been shown to have prognostic implications, therefore an accurate blood staging system able to foresee disease progression is warranted. Recently, the European Organization for Research and Treatment of Cancer (EORTC) proposed blood staging based on absolute lymphocyte counts of CD4+CD7- and CD4+CD26-. The National Cancer Center Network (NCCN) recommendations also consider the percentages of CD4+CD7- and CD4+CD26- of total lymphocytes together with absolute counts.

Objectives: We aim to correlate and compare blood-classification of NCCN and EORTC with disease progression in MF/SS.

Methods and Materials: Upon approval by the Institutional Review Board at Northwestern University, we retrospectively collected clinical data and blood assessments of patients with MF/SS from 2000 to 2015. Only patients with an initial work-up with Sézary cell count and flow cytometry at first visit or within a month were entered. Follow-up data was gathered to determine disease progression.

Results: Sixty-three patients (38 male, 25 female) with a median age of 62 years (35 – 92) were included. Twenty-six had MF and 37 SS. Median time of follow-up was 46 months (1 – 144). Twenty-four (41%) patients were identified as having disease progression. Moderate correlation (Cohen's Kappa=0.52, p=.001) in blood classification was observed between the two systems (8 patients had B0, 10 B1, 45 B2 by NCCN; 13 patients had B0, 16 B1 and 31 B2 by EORTC). Both systems showed good correlation with disease progression when analyzing the whole sample, however NCCN recommendations showed better correlation with prognosis among patients with any blood involvement (B1, B2) than EORTC (p=.021

and p=.115, respectively).

Conclusions: The consideration of percentage and absolute counts of lymphocytes (NCCN) with abnormal phenotype in MF/SS patients with definite blood tumor burden seems to better predict worse prognosis than considering absolute lymphocyte count only (EORTC).