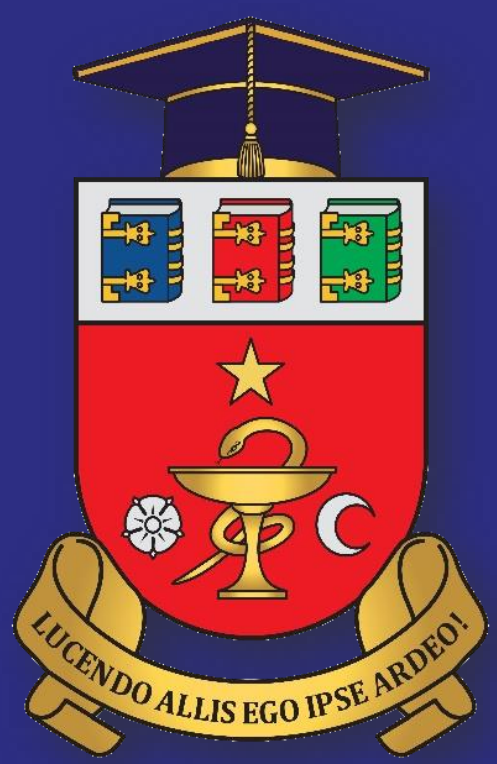




Clinical Application of HALP Score in the Determination of Nodal Diffuse Large B-Cell Lymphoma Prognosis

Victor Tomacinschii^{1,2*}, Sanda Buruiana¹, Maria Robu¹

¹ "Nicolae Testemitanu" State University of Medicine and Pharmacy, Chisinau, Republic of Moldova,
² Department of Hematology, Institute of Oncology of Republic of Moldova, Chisinau, Republic of Moldova



Context

Hemoglobin, albumin, lymphocytes, and platelets comprise the HALP score, which has recently been proposed to predict the prognosis of cancer patients. However, there are limited reports of the use of the HALP score in the determination of survival prognosis among diffuse large B-cell lymphoma (DLBCL) patients.

Objective

This study aims to appreciate the usefulness of the HALP score in the determination of overall survival (OS) characteristics in patients with nodal DLBCL.

Materials & Methods

To confirm the hypothesis, a retrospective study was performed, including 45 patients diagnosed with nodal DLBCL in the Oncology Institute of the Republic of Moldova. The HALP score was calculated using the formula: hemoglobin (g/L) × albumin (g/L) × lymphocytes (%) / platelets (/L).

Results

Of the patients enrolled in the study, 26 (60%) were female. The mean age of the patients was of 58.6 years (range 22–83 years). The majority of the patients were diagnosed in generalized stages: stage III, 12 (27.91%); stage IV, 22 (51.16%). Localized stages were found in 20.93%: stage I, 3 (6.98%); stage II, 6 (13.95%).(fig.1)

Peripheral lymph nodes were the most common area of primary involvement, 26 (57.8%); followed by onset in the mediastinum, 13 (28.9%); and abdominal lymph node involvement, 6 (13.3%).(fig.2)

On receiver operating characteristic (ROC) curve analysis, the predictive ability of the HALP score for the risk of unfavorable events was significant ($p=0.039$; AUC: 0.680). The cutoff value based on ROC was 573.7.

As a result, we observed that patients with a low HALP score have a shorter period of OS: median OS: 15 (8–20) months compared with the group of patients with a high HALP score, where the median OS was not reached ($p=0.05$). (fig. 3)

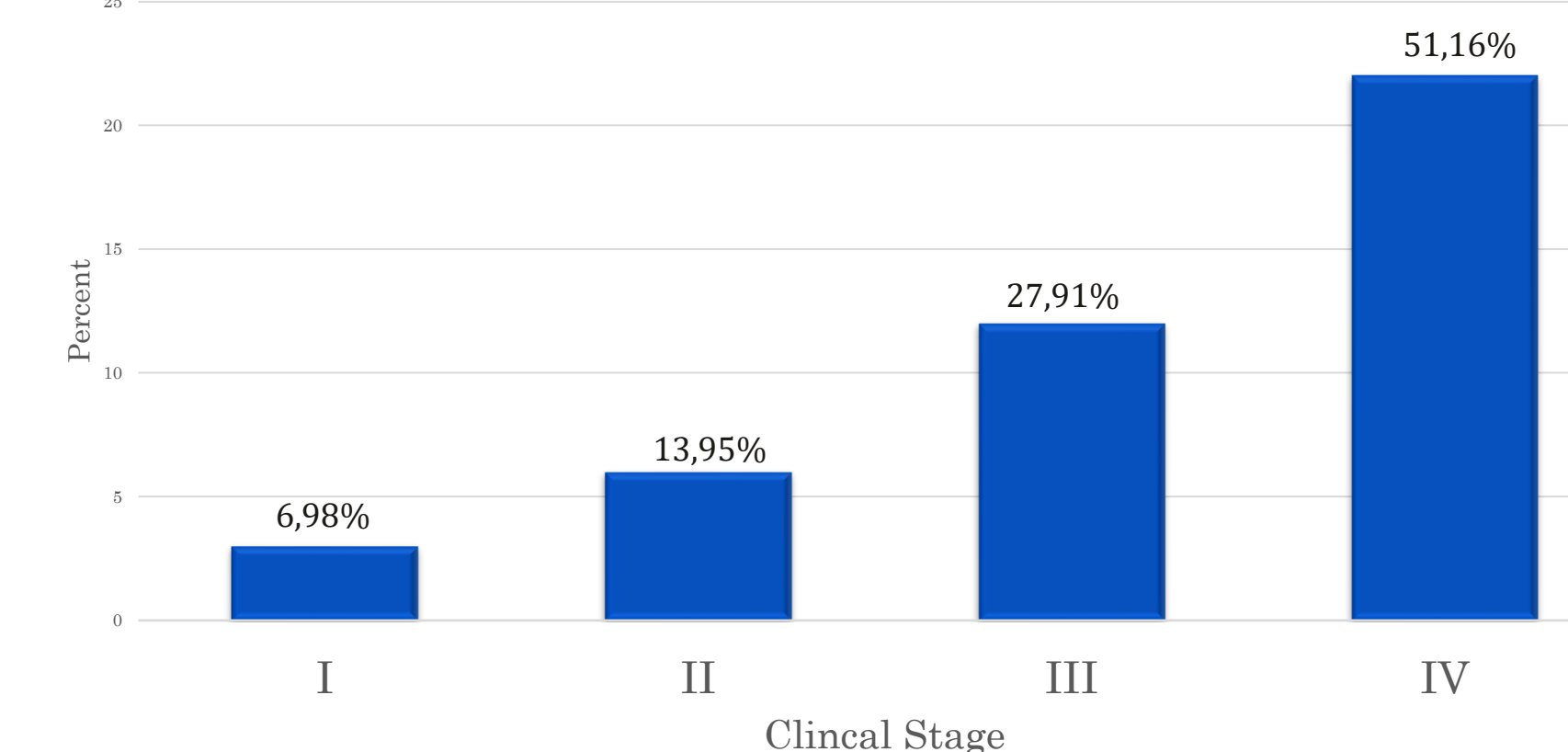


Figure 1. Distribution of patients according to clinical stage

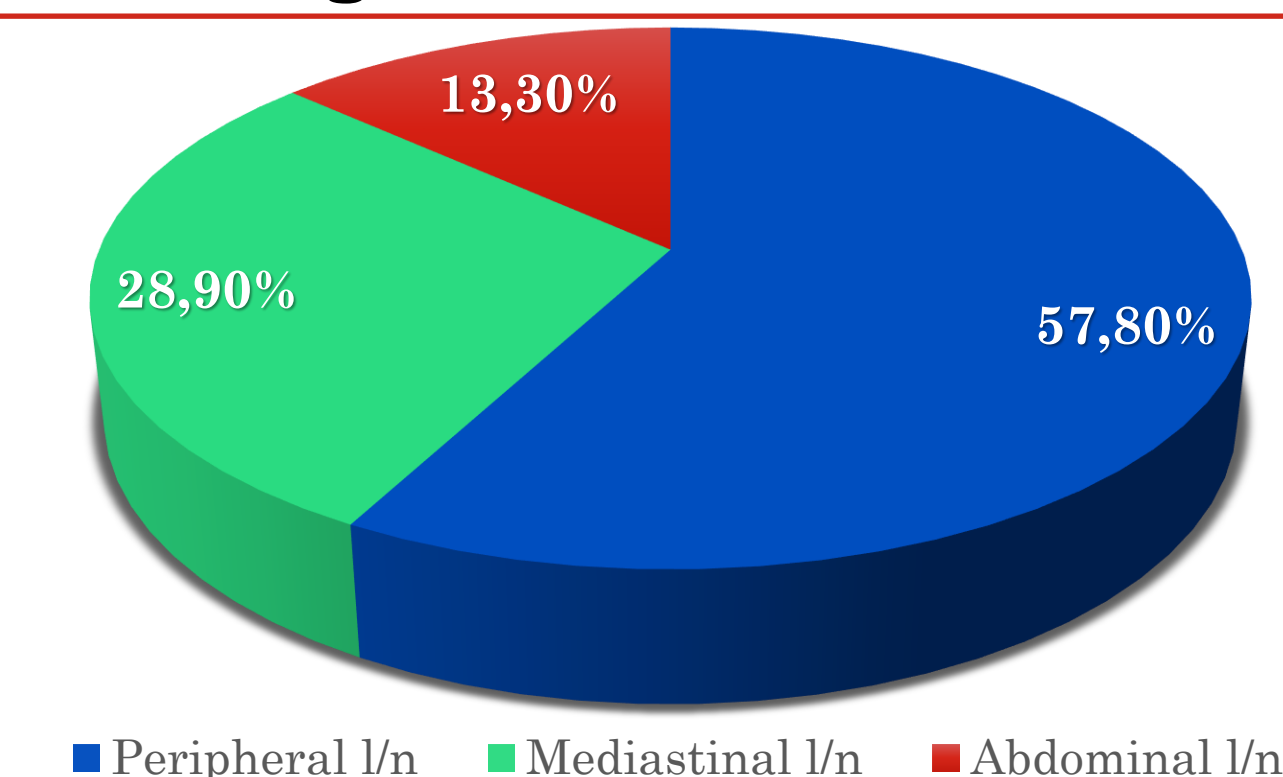


Figure 2. Distribution of patients according to area of primary l/n involvement.

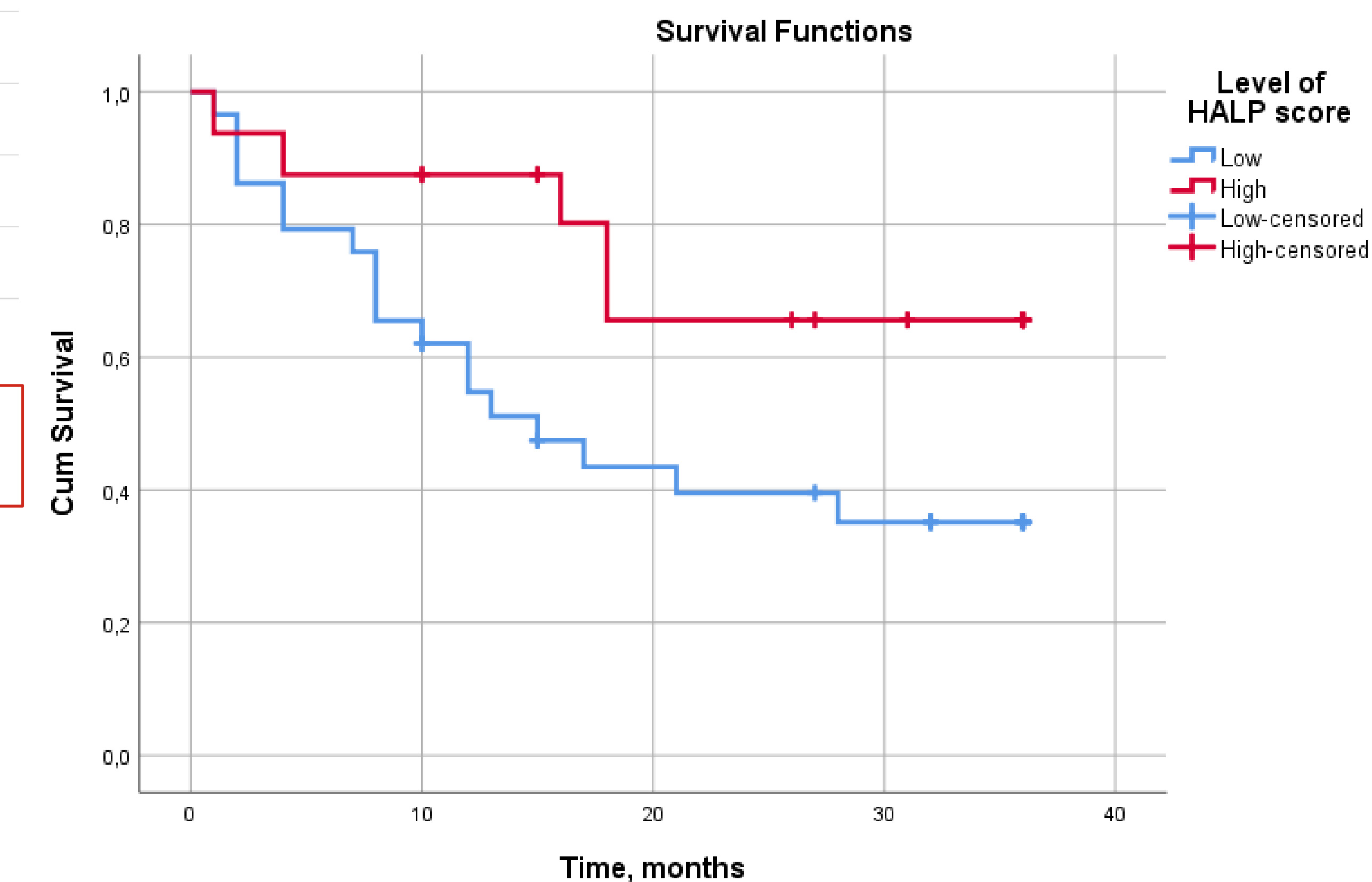


Figure 3. Kaplan Meier survival curve of patients in the study group depending on the level of the HALP score

Conclusion

The HALP score appears to be a useful tool for determining the prognosis of patients with nodal DLBCL. A low HALP score was associated with lower OS rates: 15 months (8–20 months). However, the small group of patients and the retrospective nature of the study limits the extrapolation of this data to the general population with nodal DLBCL, requiring additional evaluation.

Bibliography:

1. Vlatka Periša, Jasminka Sinčić-Petričević, Stefan Mrdenović, Danijela Mjeda, Maja Marković, Dorian Laslo, Lada Zibar, Igor Aurer. THE HEMOGLOBIN, ALBUMIN, LYMPHOCYTE, AND PLATELET (HALP) SCORE IS A NOVEL SIGNIFICANT PROGNOSTIC FACTOR FOR PATIENTS WITH DIFFUSE LARGE B CELL LYMPHOMA. EHA Library. Periša V. 06/12/20; 298127; PB2213
2. Zhao P, Zang L, Zhang X, et al. Novel prognostic scoring system for diffuse large B-cell lymphoma. Oncol Lett. 2018;15(4):5325-5332. doi:10.3892/ol.2018.7966
3. Tojek, K., Kowalczyk, G., Czerniak, B., Banaś, W., Szukay, B., Korzycka-Wilińska, W, ... & Budzyński, J. (2019). Blood albumin as a prognostic factor among unselected medically treated inpatients. Biomarkers in medicine, 13(13), 1059-1069.