Prognostic Value of the Endothelial Activation and Stress Index (EASIX) Score in Newly Diagnosed Patients with Diffuse Large B-Cell Lymphoma: A Retrospective Single-Health System Study

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Introduction

Diffuse large B-cell lymphoma (DLBCL) is an aggressive lymphoma that constitutes 30-40% of all lymphoma cases [1]. The most accurate prognostic tool for overall survival is the NCCN-IPI, which factors in age, LDH, ECOG, Ann Arbor stage, and extranodal disease [2]. The EASIX score [calculated by LDH (U/L) x creatinine (mg/dL) / platelet count (10^9 /L)] was originally developed in acute graft host disease and found to be a good predictor of overall survival [3]. Recently a few studies from Asia have found that the EASIX score can be used as an independent prognostic marker for newly diagnosed DLBCL [4,5]. The benefit of using the EASIX score is that it can be calculated with readily available labs.

Objectives

To contribute to the research on if the EASIX score can be used as an independent tool to predict overall survival (OS) and progression free survival (PFS) in patients with newly diagnosed DLBCL, and how does it compare to NCCN-IPI?

Setting

Retrospective chart review from Loma Linda University a large academic institution and its partner Riverside University Health a public hospital, in Southern California.

Patients

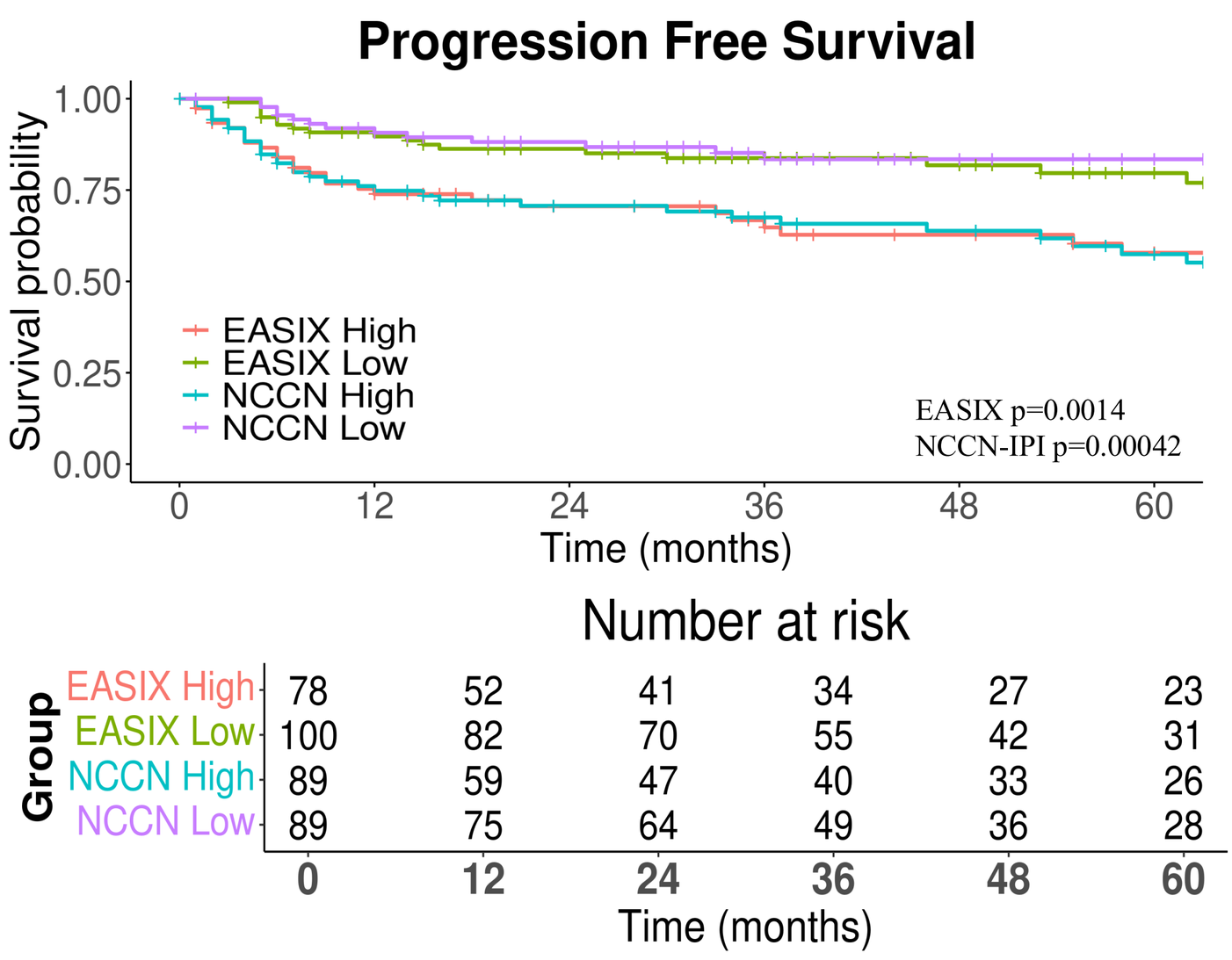
Adult DLBCL patients from 01/01/2010-04/01/2025, who met inclusion criteria: new diagnosis of DLBCL or HGBCL, EASIX labs within 2 weeks before treatment, and continued follow-up. Patients excluded if they had a prior malignancy or did not meet inclusion criteria. A total of 178 patients were identified with a median age 63 (IQR 53-72) and ethnic make-up (White 39%, Hispanic 39%, Black 7%, Asian 10%, Other 5%).

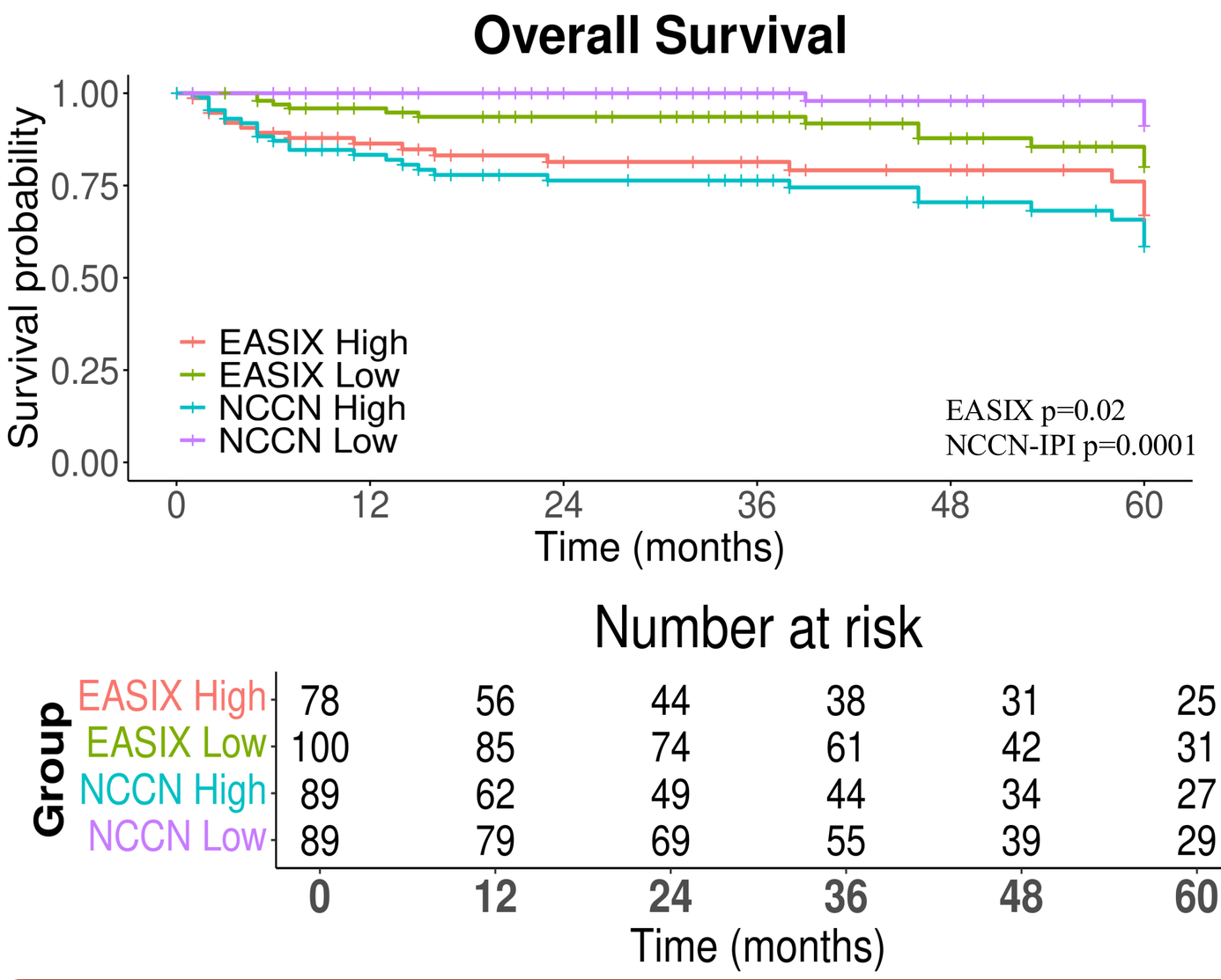
Main Outcome Measures

Patients were stratified by their EASIX score and NCCN-IPI, a high score was EASIX >1 and NCCN-IPI 4-8; then OS and PFS were compared over a 5-year period.

Results

The low EASIX group (n=100) and high EASIX group (n=78) had a median follow up time of 39 and 33.5 months respectively. Patients were plotted on a Kaplan-Meier survival curve with 5-year PFS 79.6% vs 54% (p=0.0014) and OS 88% vs 74% (p=0.02) for low and high respectively. Low NCCN-IPI (n=89) and High (n=89), PFS 85% vs 60% (p=0.00042) and OS 98% vs 68% (p=0.0001) respectively.





Summary

From these results we can see that the EASIX score is more sensitive at predicting PFS compared to NCCN-IPI, however NCCN-IPI remains a better marker for OS. EASIX score, which can be easily obtained , is a valuable clinical parameter and has significant potential for predicting outcomes in DLBCL patients. It can also be used a quick tool to educate patients.

References

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