Analyzing the Outcomes of Adults With DLBCL Following Admission for NSTEMI

Authors: D.Popat[1], K. Savani[2], M.Bai[3], S.S. Chennapragada[4]

1. Louisiana State University, Shreveport, LA, USA
2. Kidney Care Clinic, Surat, India
3. Peoples University of Medical and Health Sciences for Women, Pakistan

Introduction

With improving survival rates in diffuse large B-cell lymphoma (DLBCL), cardiovascular complications such as non-ST-elevation myocardial infarction (NSTEMI) are becoming more prevalent.

We used the National Inpatient Sample to evaluate and compare NSTEMI outcomes in patients with and without DLBCL.

Methods

Using the National Inpatient Sample (2016–2022), all adult hospitalizations for NSTEMI were identified and divided into two groups: **patients with DLBCL and those without any malignancy.**

Multivariable regression models, adjusted for demographics, comorbidities, and hospital characteristics, were used to evaluate differences in clinical outcomes between the groups.

Results

Total NSTEMI admissions analyzed: **2,547,064**

Number of NSTEMI patients with DLBCL: **1,070**

DLBCL patients:

- **Older** (74.1 vs. 67.7 years, p<0.01)
- **More males** (65.4% vs. 60.3%, p<0.01)
- **More racially classified as White** (84.1% vs. 72.5%, p<0.01)

Events reported among DLBCL patients (vs. non-DLBCL as reference)

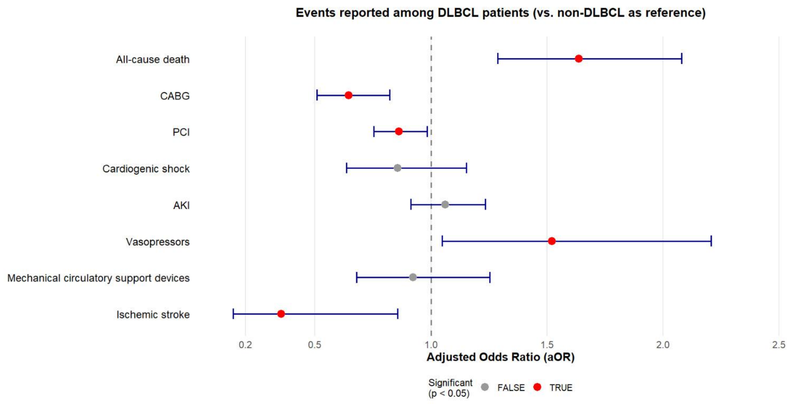
Outcome	aOR (95% CI)	P-value
All-cause death	1.636 (1.288-2.079)	<.001
Coronary Artery Bypass Grafting (CABG)	0.646 (0.508-0.822)	<.001
Percutaneous Coronary Intervention (PCI)	0.861 (0.754-0.983)	0.027
Cardiogenic shock	0.856 (0.636-1.153)	0.307
Acute Kidney Injury (AKI)	1.062 (0.913-1.235)	0.434
Vasopressors	1.520 (1.048-2.206)	0.027
Mechanical circulatory support devices (MCS)	0.923 (0.680-1.253)	0.608
Ischemic stroke	0.355 (0.147-0.856)	0.021

Patients with DLBCL expressed higher odds of:vasopressor use

Patients with DLBCL were less likely to undergo revascularization procedures such as CABG and PCI.

Events of ischemic stroke were less likely among DLBCL patients.

All-cause mortality was higher among DLBCL patients.



Discussions and conclusions

DLBCL patients with NSTEMI were less likely to undergo invasive procedures such as CABG or PCI. This may be due to concerns about their frailty, cancer-related risks, and overall prognosis, leading to a more conservative treatment approach.

This difference in management, along with the complex clinical challenges of having both cancer and acute cardiac disease, likely contributes to the higher in-hospital mortality, greater need for vasopressor support and greater economic burden.

Implementing a multidisciplinary care model and ensuring equitable access to evidence-based cardiovascular interventions may help address the higher risk of adverse outcomes in patients with DLBCL presenting with NSTEMI.

References

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Contact information

Phone: +1-6154970906

Email: krupasavaniofficial@gmail.com

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