SOHO ANNUAL MEETING 2024

Trends of Lymphomas in patients with Systemic Lupus Erythematosus and exploring inpatient cardiovascular outcomes: A nationwide analysis

Authors, D. SANIKOMMU[1], M. VANOYE TAMEZ[1], N.PATEL[1], A.NADEEM[1]

1. NEW YORK MEDICAL COLLEGE, LANDMARK MEDICAL CENTER, RHODE ISLAND

INTRODUCTION

Studies have shown increased risk of malignancies in autoimmune conditions. Systemic Lupus Erythematosus (SLE) is a common autoimmune condition which increases the risk of lymphomas and has a high predisposition for accelerated atherosclerosis and major cardiovascular complications.[1,2]

AIM

This study aims to compare the cardiovascular outcomes of Hodgkin's (HL) and Non-Hodgkin's lymphoma (NHL) in patients with SLE from a national database.

METHODS

This study was conducted using the National Inpatient Sample database in the United States from 2016-2020 on all adult patients aged >18 years who were diagnosed with SLE, using ICD codes.

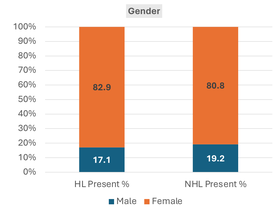
- Patients were identified and divided into two groups based on the presence of HL and NHL.
- Baseline demographic factors like age, gender, race/ethnicity along with common comorbidities were assessed.
- Trends of both lymphomas in SLE from 2016 to 2020 were studied, along with in-patient cardiovascular complications using chi-square statistics and univariate regression analysis using STATA v.17.

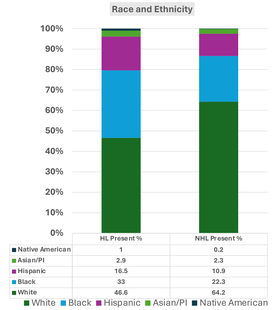
RESULTS

A total of 889,594 weighted index hospitalizations with SLE were identified from 2016 to 2020. 2,260 patients with SLE had NHL and 525 patients had HL. The mean age of the NHL group was 60.59 years while the HL group was 58.2 years.

There was a significantly higher prevalence of both NHL and HL cases among women (80.8% vs 82.9%; p <0.05). The prevalence was higher among the white population (64.2%, p <0.001) in NHL compared to other racial/ethnic groups. Similarly, the prevalence was higher among the whites in the HL group, but it was not statistically significant (46.3%, p: 0.93). The trend of incidence of both lymphomas in SLE were stable (430-500 cases/year in NHL vs 90-120 cases/year in HL) from 2016 to 2020.

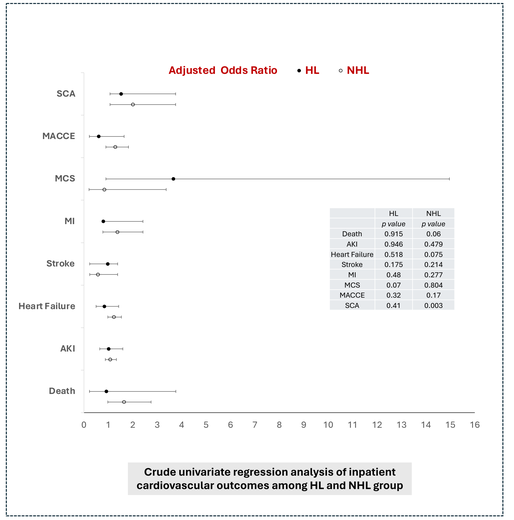
There was no statistically significant difference in crude and propensity matched in-hospital cardiovascular outcomes including heart failure, circulatory shock (MCS), myocardial infarction (MI), and major adverse cardiac and cerebrovascular events (MACCE) among NHL and HL subgroups.





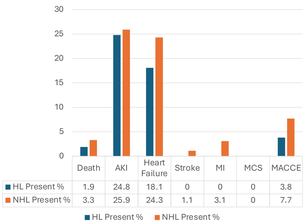
	HL Present %	NHL Present %
Native American	1	0.2
Asian/PI	2.9	2.3
Hispanic	16.5	10.9
Black	33	22.3
White	46.6	64.2

Baseline characteristics of SLE patients with HL and NHL



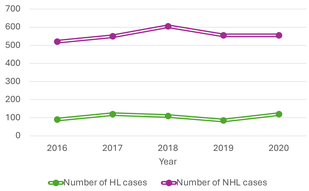
	HL *p value*	NHL *p value*
Death	0.915	0.06
AKI	0.946	0.479
Heart Failure	0.518	0.075
Stroke	0.175	0.214
MI	0.48	0.277
MCS	0.07	0.804
MACCE	0.32	0.17
SCA	0.41	0.003

Crude univariate regression analysis of inpatient cardiovascular outcomes among HL and NHL group



	Death	AKI	Heart Failure	Stroke	MI	MCS	MACCE
HL Present %	1.9	24.8	18.1	0	0	0	3.8
NHL Present %	3.3	25.9	24.3	1.1	3.1	0	7.7

Percentage analysis of inpatient cardiovascular outcomes among HL and NHL group



Trend of HL and NHL in SLE patients from 2016-2020

CONCLUSIONS

NHL is more common than HL in patients with SLE. Prevalence was higher among women and the white population in comparison to other racial/ethnic groups. The trend of incidence remained stable from 2016 to 2020, without any statistically significant difference in in-hospital cardiovascular outcomes.

REFERENCES

1. Clarke et al. Risk of malignancy in patients with systemic lupus erythematosus: Systematic review and meta-analysis. *InSeminars in arthritis and rheumatism 2021 Dec 1 (Vol. 51, No. 6, pp. 1230-1241). WB Saunders.*
2. Kostopoulou et al. Cardiovascular disease in systemic lupus erythematosus: recent data on epidemiology, risk factors and prevention. *Current Vascular Pharmacology. 2020 Nov 1;18(6):549-65.*

CONTACT INFORMATION

Dhruvi Reddy Sanikommu. MD
Internal Medicine PGY-3

Email:
dsanikommu@primehealthcare.com