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SCNS INVOLVEMENT IN DLBCL: 10-YEAR OUTCOMES FROM MEXICO'S NATIONAL CANCER INSTITUTE

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INTRODUCTION

Secondary CNS involvement (*SCNS*) is an uncommon presentation in DLBCL[1]. Treatment strategies are diverse, and outcomes are generally poor.[2] A comprehensive evaluation of this entity is lacking in Mexican centers.

DESIGN / METHODS

Retrospective analysis of patients diagnosed with DLBCL, during a 10-year period (2011-2021), aged ≥18 and with *SCNS* involvement at some point of their clinical course.

SCNS involvement was defined by the presence of at least one positive finding among the following: CSF flow cytometry, cytology, MRI, CT or PET-CT.

Three relevant subgroups according to the timing of diagnosis of *SCNS* involvement were recognized:

SCNS 1: At the time of initial lymphoma diagnosis
SCNS 2: Relapsed disease (isolated or synchronous)
SCNS 3: Progressive disease while in first line therapy for systemic disease.

For clinical and demographical characteristics, descriptive analysis was performed. Median and standard deviation were used as measures of dispersion. Chi-squared test was used to compare clinical variables, and p values <0.05% were considered statistically significant. Survival curves were calculated by the Kaplan-Meier method and differences between subgroups were compared with the Log-Rank test. Cox-regression analysis was used to identify the variables associated with overall survival.

RESULTS

Out of 1236 patients with a histological proven diagnosis of DLBCL during the 2011-2021 period, a total of 74 (6%) patients were diagnosed with secondary CNS involvement.

For the *SCNS* involvement cohort median age was 52.8 ± 16.7 years; most of the cases were men, (n=42, 57%) with advanced clinical stage (n=64, 86%) and germinal center B-cell-like (GCB) by immunostochemical stain according to Han's algorithm (n=46, 62%).

Up to 86% of patients were treated with curative intent. Treatment modalities were highly heterogeneous, mainly based on systemic chemotherapy (n=51, 69%) with high dose methotrexate, either alone or in combination with other agents. There was no difference in outcomes between treatment modalities.

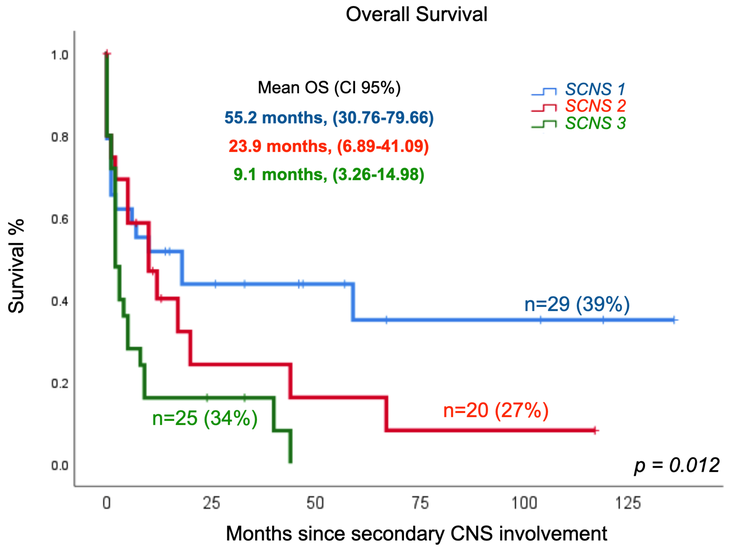
Presence of extra-nodal disease at lymphoma diagnosis was significantly associated with *SCNS* involvement.

Multivariate Cox-regression analysis showed a significant association of the timing of *SCNS* involvement with probability of survival (p<0.001, HR 2.932 IC 95% 1.721- 4.993).

SCNS 3 represents a high-risk cohort, with poor outcomes to CNS directed therapy.

Treatment Outcomes

Diagnosis of Secondary CNS Involvement	n (%)	Treatment with curative intent n (%)	Overall response n (%)	CNS relapse: (Isolated / Synchronous)	Isolated nodal relapse	Progressive disease (CNS therapy) / No response
SCNS 1 **At initial lymphoma diagnosis**	29 (39)	27 (93)	18 (66)	3 (1/2)	0	1/8
SCNS 2 **Relapsed disease**	20 (27)	18 (90)	10 (55)	1 (1/0)	2	6/2
SCNS 3 **Progressive disease (First line systemic treatment)**	25 (34)	20 (80)	6 (30)	0	0	5/9



CONCLUSIONS

In patients with DLBCL diagnosis from a reference cancer center in Mexico, progression to *SCNS* involvement during first line immunochemotherapy for systemic disease was associated with poor outcomes.

Patients with *SCNS* involvement identified at initial lymphoma diagnosis fared considerably better. This underscores the importance of an extensive evaluation for asymptomatic *SCNS* involvement in patients with advance stage disease and extra-nodal involvement.

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REFERENCES

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