

Primary extranodal non-Hodgkin lymphoma in the North-Western region of Romania: clinicopathological features and survival

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Objectives

Figures of non-Hodgkin lymphoma (NHL) varies significantly around the world. Approximately 25-40 % of NHL arises primarily from sites other than lymph nodes. The etiology of extranodal NHL's is multifactorial and can include viral and bacterial infections, exposure to environmental agents and immune suppression. While the incidence of extranodal NHL in western countries has increased substantially in the last 40 years, there are very few epidemiologic studies of NHL in Eastern Europe.

Our aim is to evaluate clinicopathological features and survival of primary extranodal NHL as compared to primary nodal NHL in the North-Western region of Romania.



Methods

Population-based data on NHL for the period 2008 - 2013 was obtained from the North-Western Regional Cancer Registry (RRCNV), hosted by the Institute of Oncology from Cluj-Napoca.

RRCNV covers a total of 2,573,358 inhabitants (as of 1st of July 2016) in six Romanian counties accounting for 14% of surface and 12.7% of population of Romania.

For the survival study we have included cases from 2008 to 2011, only from Cluj County (highlighted) where complete follow-up data until December 31, 2016 was available, a total of 578 cases. Pohar-Perme estimator was used to examine the 5-year net survival by nodal involvement.

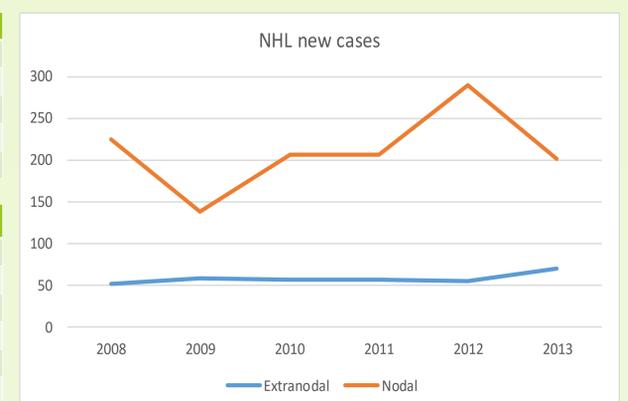
NHL cases were reviewed and reclassified according to the WHO classification (2008), to determine primary location and histology.

Results

Sex	Extranodal	Nodal	Total
Female	165	567	732
	47.4%	44.7%	45.3%
Male	183	701	884
	52.6%	55.3%	54.7%
Total	348	1,268	1,616

Extranodal site	Nr	Percent
GIT	125	33.8
tonsil and parotid gland	52	14%
skin	47	13.4
spleen	44	12.8
respiratory organs	31	8.9
soft tissue	14	4.0
central nervous system	12	3.5
thyroid	7	2.0
breast	5	1.4
testis	4	1.2
eye	3	0.9
urinary organs	3	0.9

Extranodal		Nodal*	
Diffuse large B-cell lymphoma	47.9%	Diffuse large B-cell lymphoma	21.8%
Splenic marginal zone B-cell lymphoma	12.8%	Follicular lymphoma	5.5%
T-cell lymphoma	9.2%	Small B lymphocytic lymphoma	4.7%
Marginal zone B-cell lymphoma	7.1%	T-cell lymphoma	2.5%
Burkitt lymphoma	4.3%	Mantle cell lymphoma	2.1%
Small B lymphocytic lymphoma	3.9%	Marginal zone B-cell lymphoma	1.5%
Mediastinal (thymic) large B-cell lymphoma	3.5%	Burkitt lymphoma	0.8%
Follicular lymphoma	2.5%	* Excluded CLL/SLL	



During the study period a total of newly diagnosed 1616 primary NHL cases have been recorded accounting for 2.8 % of all malignant cases. Primary extranodal involvement was recorded in 21.5% of patients.

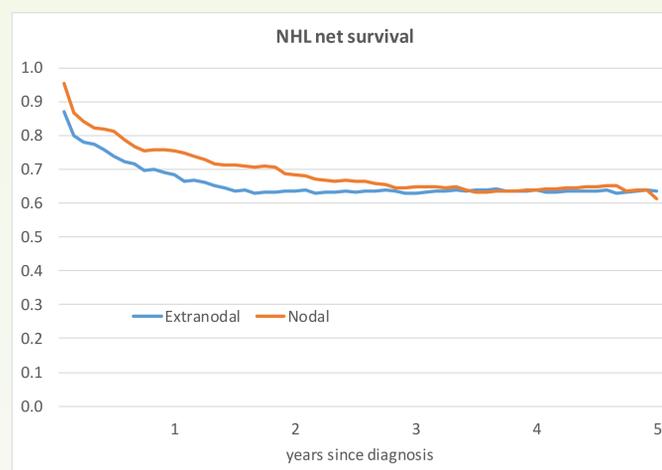
In the extranodal group, the male to female ratio was 1.1:1, and the mean age was 58.5 years (SD=21.8).

In the nodal group, the male to female ratio was 1.23:1, and the mean age was 59.8 years (SD=16.6).

Diffuse large B-cell lymphoma (DLBCL) was the most common type of NHL observed in both primary extranodal and nodal involvement.

Gastrointestinal tract (33.8%), tonsil and parotid gland (14%), skin (13.4%) and spleen (12.8%) were the more frequent extranodal sites.

The net survival at 5 years was 63.5% (53.4 - 71.9 95% CI) for primary extranodal NHL compared to 61.0% (54.4 - 67.0 95%CI) for nodal NHL.



Conclusions

We note a relatively low frequency of primary extranodal involvement in NHL in the north-western region of Romania, but with an upward trend. DLBCL was the most common morphological type observed and the gastrointestinal tract was the most common anatomical site for primary extranodal involvement. There was no statistically significant difference between extranodal and nodal NHL in terms of sex and age distribution and overall survival. A specialized lymphoma registry is needed for in-depth analysis.

References

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