

Prevalence of Extranodal Lymphoma at Tertiary Care Hospital, Ajmer

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Abstract

Background: Extranodal lymphoma means that primary area of presentation of lymphoma is not the lymphnode.² Hodgkin`s disease, because it so rarely arises outside the lymph-nodes, is not customarily included. Therefore the term ‘extranodal lymphoma’ refers only to non-Hodgkin`s lymphomas. The clinical presentation could be abdominal mass, sub-acute intestinal obstruction, bleeding per-rectum, itching, nodules on the skin, testicular swelling, etc.

Methods: The present study entitled “A retrospective and prospective clinico-pathologic study of extranodal lymphoma” was carried out in the Department of Pathology, J.L.N. Medical College and Associated Group of Hospitals, Ajmer (Rajasthan), between 1st January 2007 and 30 November, 2011.

Results: Out of the ninety-six histopathologically-proven lymphoma cases, the number of extranodal lymphoma was 30; the incidence being 31.25 %.

Conclusion: In conclusion, this study yielded some useful information and suggested that distribution of

extranodal lymphoma slightly differs by geographic variation. The maximum number of cases was in the 6th decade, followed by 4th and 5th decades of life.

Keywords: Extranodal lymphoma, Age, Prevalence.

Introduction

Lymphomas are malignant neoplasms characterized by the proliferation of cells native to the lymphoid tissues, that is, lymphocytes, histiocytes, and their precursors and derivatives. They are broadly classified into Hodgkin`s lymphoma (HL) and Non-Hodgkin`s lymphoma (NHL).¹

Extranodal lymphoma means that primary area of presentation of lymphoma is not the lymphnode.² Hodgkin`s disease, because it so rarely arises outside the lymph-nodes, is not customarily included. Therefore the term ‘extranodal lymphoma’ refers only to non-Hodgkin`s lymphomas. The clinical presentation could be abdominal mass, sub-acute intestinal obstruction, bleeding per rectum, itching, nodules on the skin, testicular swelling, etc. It is important to recognize that malignant lymphomas can

involve almost any organ or tissue and have, therefore, to be taken into account in the differential diagnosis of those tumors of which the identity is not immediately apparent. Malignant lymphomas can exhibit astonishing morphological diversity and can readily be mistaken for other neoplasm. The correct diagnosis of the lymphomas is important since specific form of treatment may be applicable and effective in controlling the disease.³ For histologic diagnosis an adequate wedge-type biopsy is necessary. According to literature, chemotherapy is suggested as the successful treatment for lymphoma cases.⁴ Therefore the role of pathologist in management of lymphoma is of paramount importance. In order to get preliminary knowledge of the incidence and clinical pattern of extranodal lymphomas at our institute, and to develop better understanding of this rarer entity, we conducted a study entitled “Prevalence of extranodal lymphoma at tertiary care hospital Ajmer” Pathology department of J. L. N. Medical College, Ajmer, Rajasthan.

Materials & Methods

We performed a retrospective study on previously diagnosed cases of extranodal lymphoma in the department of pathology, JLN medical college, Ajmer, and prospective study on the fresh obtained samples once the study was started. The study period extended from January 2007 to November 2011. Patients who presented with Extra-nodal lymphoma, irrespective of age & sex were included in this study. Patients with primary lymph node involvement were excluded.

Histopathological examination of surgical specimens and biopsies were carried out. A properly completed surgical pathology requisition form containing the patient’s identification, age, sex, essential clinical data and tissue submitted was checked. The tissue was then

processed by means of paraffin-wax processing which consists of following steps.

1. Paraffin processing
2. Section cutting
3. H & E staining
4. RS staining
5. PAS staining
6. IHC in some of the cases

The diagnosis of extra-nodal lymphoma (NHL) was made on basis of morphological features, as observed under light microscope in H & E stained sections; and after ruling out nodal involvement by clinical, radiological and ultrasound methods. Some cases where morphology alone could not be of help in diagnosis of NHL, were subjected to IHC as mentioned above.

Observations

The present study entitled “A retrospective and prospective clinico-pathologic study of extranodal lymphoma” was carried out in the Department of Pathology, J.L.N. Medical College and Associated Group of Hospitals, Ajmer (Rajasthan), between 1st January 2007 and 30 November, 2011.

Table1: Prevalence of extranodal lymphoma

Total cases of lymphoma	96
Cases of extranodal lymphoma	30
Percentage of extranodal lymphoma	31.25%

Out of the ninety-six histopathologically-proven lymphoma cases, the number of extranodal lymphoma was 30; the incidence being 31.25 %.

Table2: Age wise distribution of extranodal lymphoma (n = 30)

Age group (years)	Total	
	No. of patients	Percentage (%)
Up to 10	2	6.66
>10-20	4	13.33
>20-30	3	10.00
>30-40	6	20.00
>40-50	5	16.66
> 50-60	7	23.33
>60-70	2	6.66
>70-80	1	3.33
Total cases	30	100

The highest number of cases was recorded in 6th decade (7; 23.33%) followed by 6 cases (20.00%) in 4th decade and 5 cases (16.66%) in 5th decade of life. So the peak incidence of extranodal lymphoma was observed in 6th decade. The youngest patient was a 4½-year-old male child, and the oldest one was 80-year-old female. The average age at the time of diagnosis was 40.71 years.

Table3. Sex wise distribution of extranodal lymphoma (n = 30)

Age group (years)	Male		Female	
	No. of patients	%	No. of patients	%
Up to 10	2	10.00	Nil	0
>10-20	3	15.00	1	10.00
>20-30	2	10.00	1	10.00
>30-40	3	15.00	3	30.00
>40-50	4	20.00	1	10.00
> 50-60	5	25.00	2	20.00
>60-70	1	05.00	1	10.00
>70-80	Nil	0	1	10.00
Total cases	20	100	10	100

Out of 30 cases, 20 (66.66%) were males and 10 (33.33%) females. Male to female ratio was 2:1. The average age for male and female subjects was 38.37 years and 45.40 years respectively. Although the male patients outnumbered female patients, such difference was not evident with respect to different age groups.

Discussion

The index study comprised of an analysis of thirty cases of extranodal lymphoma. All these cases were reviewed as regards to incidence, age, sex distribution, nature and pattern. The results observed have been compared with similar studies done in India and abroad.

The percentage of all Non-Hodgkin’s lymphomas coded as being of extranodal origin is between 25% and 35% in most countries. The proportion coded as being of extranodal origin shows much less variation ranging from 22-25% of all lymphomas in USA to 33% in Denmark and 34% in Israel. Only France (42%) and Kuwait (52%) have particularly high relative frequencies.⁵

Out of a total of ninety-six cases of lymphomas diagnosed between 1st January 2007 and 30th November 2011, the number of extranodal lymphoma cases was 30, showing an incidence of 31.25% in this study which was correlated well with other studies. An incidence between 25% and 35% was noted by Newton et al⁵ (1997). Yang et al⁶ (2011) conducted a study on 6,382 patients with lymphoma diagnosed within 9 years in a single institution in South-West China and reported extranodal lymphoma in about half of cases.

Maximum number 7 out of 30 cases (23.33%) were from the age group of 51-60 years in present study. Age range of 31-60 years comprised of 60% of the cases. So, the peak incidence of extra-nodal lymphoma was present in 6th decade. The average age for total cases

was 40.71 years and age range was 4.5 to 80 years. The varied age range was observed in various studies as 14-65 years. The highest number of cases seen in 6th decade of life but could occur in all age group patients.⁷⁻⁹

Conclusion

In conclusion, this study yielded some useful information and suggested that distribution of extranodal lymphoma slightly differs by geographic variation. The maximum number of cases was in the 6th decade, followed by 4th and 5th decades of life.

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