

HODGKINS LYMPHOMA IN CERVICAL LYMPHADENOPATHY

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ABSTRACT

Objective: To determine the proportion of Hodgkins lymphoma in cervical lymphadenopathy.

Methodology: This is a prospective study conducted at Isra University Hospital, Hyderabad between January 2002 to December 2006. The data was collected for all patients presenting with cervical lymphadenopathy during the above mentioned period. All the patients with cervical lymphadenopathy were subjected to detailed history, clinical examination, investigations and histopathological examination.

Results: Out of 498 patients presenting with cervical lymphadenopathy, 40 patients were found to be having Hodgkin's Lymphoma. The gender distribution was predominantly male making up about 80%. About 50% patients had mixed cellularity whereas about 37.5% patients had nodular sclerosis. Most of the patients were having stages II and III disease. The over all five years survival rate was about 75%.

Conclusion: The proportion of Hodgkin's lymphoma in cervical lymphadenopathy is relatively low in our population as compared to the western world.

KEY WORDS: Hodgkin Lymphoma, Cervical Lymphadenopathy, Staging, Histopathology.

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INTRODUCTION

Hodgkins disease is prevalent worldwide with considerable geographical and regional variation.¹ Age distribution, histological subtypes, clinical presentation and outcome

differ between regions and between ethnic and socioeconomic groups.

World Health Organization (WHO) has divided this disease into four subtypes: Nodular Scelerosis, Mixed cellularity, lymphocytic predominate and lymphocytic depletion. The head and neck region is the third most common site of involvement by malignant Lymphoma.^{1,2} Hodgkins Lymphoma accounts for 20-45% of malignant lymphoma in western countries, but this is significantly less common in asian countries such as Korea, Japan, Taiwan, and the Phillipines with prevalence rates of 4.4-18%.³⁻⁶

The aim of the present study was to determine the proportion of Hodgkin Lymphoma in the cervical lymphadenopathy along with their pathology and pattern of clinical presentation.

PATIENTS AND METHODS

This study was conducted over a period of five years from January 2002 to December 2006

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in the surgery department of Isra University Hospital Hyderabad.

This is a prospective study of all patients presenting with cervical Lymphadenopathy during the above mentioned period. All patients were subjected to a detailed clinical history and their age, gender and duration of symptoms were recorded. The clinical features of these patients at the time of presentation were also noted. A thorough physical examination of chest, abdomen, cardiovascular & central nervous systems along with all lymph nodes especially cervical group of lymph nodes was carried out. The size, consistency, mobility and tenderness of lymph nodes were recorded. Routine investigations including blood complete picture, urine detailed report and X-Ray chest were carried out. The lymph nodes which were mobile and easily accessible underwent excision biopsy. The lymph nodes which were fixed or difficult to access or excise underwent incision biopsy.

RESULTS

During the period of study, 498 patients presented with cervical lymphadenopathy fulfilling the inclusion criteria. These include 281 males and 217 females with cervical lymphadenopathy. Three hundred eleven patients underwent incision biopsy whereas 187 patients underwent excision biopsy. Hodgkins Lymphoma was observed in 40 patients and these include 29 males and 11 females.

The mean age was 23 years with the range of 1-35 years. Anorexia, fever, night sweats and weight loss were the common presenting clinical features. The details of presenting clinical features are mentioned in Table-I. Other

Table-I: Clinical Features (n=40)

<i>Clinical Features</i>	<i>Patients (%)</i>
Fever	20 (50)
Weight loss	19 (48)
Night sweats	19 (48)
Anorexia	20 (50)
Respiratory symptoms	8 (20)
Splenomegaly	9 (23)
Hepatomegaly	6 (15)

groups of lymph nodes such as axillary, inguinal and mediastinal Lymph nodes were also involved in 22 patients.

The enlarged cervical lymph nodes were non-tender, discrete, mobile and firm in consistency in all patients of Hodgkins Lymphoma. Among these 40 patients, the juglo-diagastric and jugulo-omohyoid groups were the main contributors. Detailed distribution of Hodgkins lymphoma among various groups of cervical lymph nodes is mentioned in Table-II. Mixed cellularity and nodular sclerosis are the major histopathological features. Detailed description of histopathological features is mentioned in Table-III.

Most of the patients had stage III disease. The detailed distribution of patients among various stages of lymphoma is mentioned in Table-IV. Most patients of stage I-II underwent radiotherapy except for those with B symptoms and bulky disease who received chemotherapy with or without radiotherapy.

The duration of clinical follow up ranged from 1 to 65 months with median of 26 months. The over all five years survival rate was 75%. The patients with organ infiltration (stage IV) had poor prognosis than those with Nodal disease (stage II-III)

DISCUSSION

Hodgkin's Lymphoma is relatively rare and its incidence varies with age, geographical location and socioeconomic class. The consistently low rates of Hodgkin's Lymphoma in Asians suggest genetic resistance to disease development.⁷ Other risk factors include smoking history, environmental exposure to

Table- II: Involved Cervical Lymph nodes

<i>Lymph node Group</i>	<i>Patients (%)</i>
Jugulodigastric	12 (30)
Jugulo-omohyoid	11 (28)
Supra clavicular	7 (18)
Submandibular	2 (5)
Posterior Auricular	2 (5)
Superficial Cervical Lymphnodes	4 (10)
Occipital	2 (5)

Table-III: Histopathological pattern (n=40)

<i>Histopathological feature</i>	<i>Patients (%)</i>
Mixed cellularity	20 (50)
Nodular sclerosis	15 (38)
Lymphocyte Predominant	03 (8)
Lymphocyte depleted	02 (5)

cancer causing agents or immunocompromised status. The proportion of Hodgkin's lymphoma in this study was 8% and is comparable to the figures reported from various Asian countries.³⁻⁶

There was equal distribution among various age groups unlike western studies which show a typically bimodal pattern.⁸ In a study, about 20% of the patients were above 60 years. Several other studies have shown that Hodgkins disease in older adults had a poorer prognosis than in younger adults.⁸⁻¹¹ There is male preponderance with male to female ratio of 3:1. This male preponderance is also reported from developed countries like United States.¹²

The nodular Sclerosis is reported to be the most common subtype of Hodgkin's Lymphoma in western countries, whereas, mixed cellularity is a more common feature of third world countries like Pakistan. A comparison of different sub types of Hodgkin's Lymphoma in this study with other countries is shown in Table-V.¹³⁻¹⁷

Another study of 34 patients with Hodgkin's Lymphoma from Taiwan revealed extremely high incidence (80.6%) of advanced clinical stages III and IV.¹⁸ In this study, the proportion of advanced clinical stages III and IV was 54%. The treatment of choice for Hodgkin's Lymphoma is radiotherapy and /or chemo-

Table-IV: Staging of Hodgkins Lymphoma

<i>Stage</i>	<i>Histopathological sub types</i>	<i>No. of Patients</i>
I-A	Lymphocyte predominant	3
I-A	Nodular sclerosis	4
II-A	Nodular sclerosis	3
II-B	Nodular sclerosis	3
II-B	Mixed cellularity	4
III-A	Nodular sclerosis	5
III-B	Mixed cellularity	5
III-B	Mixed cellularity	5
IV-B	Mixed cellularity	6
IV-B	Lymphocyte depleted	2

therapy depending on clinical stages. The five years survival rate in this study was 75% and is comparable to another study reporting about 83% five years survival rate.¹⁹ Improved survival rate and lower incidence of advanced stages might result from early diagnoses because of comprehensive clinical evaluation.

CONCLUSION

The proportion of Hodgkins lymphoma in cervical lymphadenopathy is relatively low and poor prognosis is observed in patients with advanced stage of disease.

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Table-V: Comparison of subtypes of Hodgkins Lymphoma

<i>Study</i>	<i>Lymphocyte Predominant(%)</i>	<i>Nodular sclerosis(%)</i>	<i>Mixed cellularity(%)</i>	<i>Lymphocyte Depleted(%)</i>	<i>Non-specific(%)</i>
Medeiros LJ ¹³	6.7	51	23.8	5.7	12.8
Georgii A ¹⁴	2.7	57.9	13.9	0.7	13
Siddiqui T ¹⁵	14	25	45	2	14
Ramdas K ¹⁶	13.5	22	50.3	6.3	7.6
Abu e Hassan MS ¹⁷	25.7	9.5	14.9	22.9	—
Present study	7.5	37.5	50	5	—

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