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Research Article

**PROPORTION OF HODGKINS LYMPHOMA DISEASE IN
PATIENTS PRESENTING WITH CERVICAL
LYMPHADENOPATHY**¹Dr Ata Ullah, ²Dr Maria Batool, ¹Dr Abdullah Sajed¹Social Security Teaching Hospital Lahore, ²Allama Iqbal Medical College Lahore

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Abstract:

Objective: The aim of this research work is to find out the amount of the disease of Hodgkin's lymphoma in the patients suffering from CL (Cervical Lymphadenopathy).

Methodology: This research work was a prospective study carried out at Social Security Teaching Hospital Lahore from April 2016 to March 2018. The collection of the information carried out from all the patients appeared with CL in the duration of this research work. We performed medical examination, histopathological assessment & other related investigations for all the patients present with CL (Cervical Lymphadenopathy). We also collected the detailed past history of the patients.

Results: Out of total 400 patients appearing with CL, 38 patients among them were available with the Hodgkin's lymphoma. There was dominancy of the male gender consisting up to eighty percent of the total amount. Approximately 48.0% patients were available with mixed cellularity while about 35.48% patients were present with the nodular sclerosis. Majority of the patients of this research work were in the Stage-2 & Stage-3 of this disease. Overall 5-year rate of survival was approximately 70%.

Conclusion: The quantity of the Hodgkin's lymphoma in the patients with CL is comparatively less in the population of our country in comparison with the other populations of various countries of west.

Key Words: Proportion, Prospective, Examination, CL, Histopathology, Assessment, Suffering, Hodgkin Lymphoma, Sclerosis.

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INTRODUCTION:

The occurrence of Hodgkin's disease is considerable in the whole world with a variation depending upon the region and geography. The distribution according to age, histological sub-types, clinical appearance & findings differ between various geographical areas as well as ethnic and social & economic groups. WHO has prescribed a criterion of this disease and divided it into four different subtypes which are:

1. Nodular sclerosis,
2. Mixed cellularity,
3. Lymphocytic predominate,
4. Lymphocytic depletion.

The region of the neck & head is the 3rd most frequent site of the engrossment by the malignant nature lymphoma. Hodgkin's disease is responsible for 18.0% to 43.0% of the malignant nature lymphoma in the countries of the west but this is meaningfully less frequent in the countries of Asia like Philippines, Japan, Korea & Taiwan with the rate of prevalence from 2.38% to 16.0%. The aim of this research work is to find out the amount of the Hodgkin lymphoma in the patients with cervical lymphadenopathy in addition with the disease development and various forms of clinical appearance.

METHODOLOGY:

This research work was a prospective study carried out from April 2016 to March 2018 in the Social Security Teaching Hospital Lahore. All the patients appeared with the cervical lymphadenopathy in the duration of this research work were the part of this study. We collected the detailed previous history of the complication from the patients. We also recorded the information about age of the patients, their gender & duration of the signs & symptoms. We also noted the clinical aspects of all the patients at the time of the appearance. We carried out a thorough clinical examination of the patients of their chest, heart, abdomen cavity and CNS (Central Nervous Systems) altogether with the lymph nodes particularly the group of the cervical lymph nodes.

We also recorded the size, mobility, constancy & tenderness of all the lymph. Complete picture of the blood, detailed report of the urine tests & chest X-ray was under the routine examination for all the patients. We carried out the excision biopsy of all the lymph nodes which were available as mobile & simply reachable. We performed the incision biopsy for the lymph nodes which were not easily accessible or in fixed condition. We got the consent from every patient after informing them about the purpose of this research

work. SPSS V. 10.5 was in use for the statistical analysis of the collected information.

RESULTS:

In the duration of this research work, 400 patients appeared with CL, were fulfilling the inclusion criteria of the research work. There were total 240 males and 160 females suffering from CL. Total 309 patients experienced incision biopsy while 185 patients had undergone the excision biopsies. We observed the Hodgkin's lymphoma in total 38 patients in which 27 were male and 9 were the female patients. The average age of the patients was 21 years with arrange from 1 to 35 years. High temperature, anorexia, sweats in night times and loss of the body weight were very frequent clinical aspects of the patients. All the description of the appearing clinical features is present in Table-1.

Table-I: Clinical Features (n=38)

Clinical Features	Patients	(%)
Fever	18.0	48.00
Weight loss	17.0	46.00
Night sweats	17.0	46.00
Anorexia	18.0	48.00
Respiratory symptoms	6.0	18.00
Splenomegaly	7.0	21.00
Hepatomegaly	4.0	13.00

Some other lymph nodes groups like axillary lymph, inguinal lymph & mediastinal lymph nodes were available with their involvement in twenty-two patients. The inflamed cervical nodes of lymph were present as non-tender, discrete, moveable and fixed in constancy in almost all the patients suffering from Hodgkin Lymphoma. Among these forty patients suffering from HL, the main contributor groups were jugulo-diagastric & the jugulo-omohyoid. The elaborate distribution of the disease of HL in different groups of cervical nodes of lymph is available in Table-2.

Table- II: Involved Cervical Lymph nodes

Lymph Nodes	No	Percent
Jugulodigastric	10.0	28.00
Jugulo-omohyoid	9.0	26.00
Supra clavicular	5.0	16.00
Submandibular	2.0	3.00
Posterior Auricular	2.0	3.00
Superficial Cervical Lymph nodes	2.0	8.00
Occipital	2.0	3.00

The most common histopathological features are the mixed cellularity & nodular sclerosis. Comprehensive detail of these features are available in the Table-3.

Table-III: Histopathological pattern (n=40)

Histopathological feature	Patients	
	No	Percent
Mixed cellularity	18.0	48.00
Nodular sclerosis	13.0	36.00
Lymphocyte Predominant	3.0	6.00
Lymphocyte depleted	2.0	3.00

Majority of the patients were in Stage-3 of the disease. The elaborate description of the patients in various stages of the HL are present in Table-4. Majority of the patients of Stage-1 and Stage-2 underwent the radiotherapy excluding those with other symptoms & bulky disease, who obtained chemotherapy without or with the application of radiotherapy. The range of the follow up duration was from one to sixty-five months with a median of twenty-six months. Overall rate of survival for 5 years was 73.0% in this research work. The patients in the Stage-4 were present with the adverse prognosis as compared to those present in Stage-2 & Stage-3.

Table-IV: Staging of Hodgkin Lymphoma

Stage	Histopathological sub types	Patients
1A	Lymphocyte predominant	Three
1A	Nodular sclerosis	Four
2A	Nodular sclerosis	Three
2B	Nodular sclerosis	Three
2B	Mixed cellularity	Four
3A	Nodular sclerosis	Five
3B	Mixed cellularity	Five
3B	Mixed cellularity	Five
4B	Mixed cellularity	Six
4B	Lymphocyte depleted	Two

DISCUSSION:

The prevalence of Hodgkin's lymphoma is not much common and the rate of its occurrence changes with the age, location on geography and social & economic status. Constantly small frequencies of the HL in the populations of Asia show the resistance of gene in the development of this disease. Some of the risk factors of this disease are history of cigarette smoking and exposure to agents which lead to the cancer or immunity compromised condition. The frequency of the HL in this research work was 6.0% and this finding is much comparable with the different reports from different countries of Asia. The distribution of the

disease is almost all the groups of age not similar to the research work of the western countries which display a normally bi-modal pattern.

In one research work, approximately 20.0% patients of this disease were more than sixty years of age. Different other research works have displayed that Hodgkin's lymphoma in the older patients is available with adverse prognosis in comparison with the young patients. There was dominance of male gender in this disease with 3:1 as the male to female ratio. Many other reports from various modern countries as USA reported the dominance of the male gender. The most frequent sub-type of the HL in the countries of the west are nodular sclerosis while mixed is very frequent feature in the countries which are under development like Pakistan. The comparison of various sub-types of HL in this current research work with different other countries of the world is available in Table-5.

One other research work on thirty-four patients suffering from HL conducted in Taiwan discovered very high prevalence (80.60%) of advanced Stages-3 & Stage-4. In current research work, the frequency of the advanced Stage-3 & Stage-4 was about 54.0%. The treatment to tackle the HL is radiotherapy or chemotherapy or both depending upon totally on the clinical stages. The rate of survival of complete 5 years in this research work was 73.0% & it is very much comparable with another research work stating about 83.0% rate of survival for complete 5 years. Better-quality rate of survival and low incidence of the serious stages can be result from in time diagnosis due to the detailed clinical assessment.

CONCLUSION:

The amount of the Hodgkin's lymphoma in the patients with CL is present as low and adverse prognosis was also available in the patients who were in advance stage of the disease. The occurrence of this disease is much low in our region as compared to the countries of the west.

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