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Research Article

CLINIAL PRESENTATION OF HODGKINS LYMPHOMA¹Dr Yasmin Khan, ²Dr Sumayya Aslam, ³Dr. Muhammad Aamir¹Sheikh Zayed Hospital Rahim Yar Khan, Pakistan²Khwaja Muhammad Safdar Medical College Sialkot³DHQ Hospital Rajanpur**Abstract:**

Objective: In this particular research we aimed at the determination of the proportion of the Hodgkin's lymphoma in the cervical lymphadenopathy.

Methodology: Research was a prospective research which was carried out in the Sheikh Zayed Hospital Rahim Yar Khan in the timeframe of Jan, 2014 to Dec, 2017. Every patient was consulted for the information about the presentation of cervical lymphadenopathy in the time span as mentioned earlier. Every patient of cervical lymphadenopathy experienced clinical assessment, detailed history, histopathological assessment and related investigations.

Results: Research sample comprised on 498 patients who presented cervical lymphadenopathy, in the total population Hodgkin's lymphoma was observed in forty patients. Males were dominant as they comprised eighty percent of the total population. Mixed cellular activity was observed in fifty percent of the population; whereas, nodular sclerosis was observed in about 37.5% patients. A number of cases were at second and third stage of the disease. Seventy-five percent of the patients were observed with a survival rate of five percent.

Conclusion: Hodgkin's lymphoma proportion in the cases of cervical lymphadenopathy was observed relatively low in the sample population of this particular research when compared to the population of the western research studies as stated by the western authors.

Key Words: Cervical lymphadenopathy, Hodgkin's lymphoma, Histopathology and Staging.

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INTRODUCTION:

The prevalence of Hodgkin's disease is varying in different regional and geographical situations all over the world. Distribution of age, clinical presentation, histological subtypes and outcomes vary as there is a variation in the region and social status of the population also it encompasses the economical differences in its variation in various target populations [1]. According to WHO there are four subtypes of the disease including Nodular Sclerosis (NS), lymphocytic predominate, Mixed cellularity and lymphocytic depletion. The neck and head areas are in the 3rd common region and site which has an involvement through malignant Lymphoma. Hodgkin's Lymphoma accounts for the malignant lymphoma in the range of 20% – 45% in the western population; whereas, less common in the population of the Asian countries including Japan, Korea, Philippines and Taiwan with an observed rate of prevalence in the range of 4.4% – 18% [2]. In this research we aimed at the determination of the proportion of the Hodgkin's lymphoma in the cervical lymphadenopathy including clinical presentation pattern and pathological outcomes.

PATIENTS AND METHODS:

Research was a prospective research which was carried out in the Sheikh Zayed Hospital Rahim Yar Khan in the timeframe of Jan, 2014 to Dec, 2017. Every patient was consulted for the information about the presentation of cervical lymphadenopathy in the time span as mentioned earlier. Every patient of cervical lymphadenopathy experienced clinical assessment, detailed history, histopathological assessment and related investigations. During the research we observed clinical characteristics of every case keeping the presentation time in mind. A detailed physical assessment of abdomen, chest, cardiovascular (CVD) and central nervous systems including all the lymph nodes specifically the lymph nodes cervical group was also done. The consistency, size, lymph tenderness and mobility were also documented. General and routine assessment of the blood complete picture (Blood CP), detailed report of the urine, and chest X-Ray chest was also done in all the patients. The mobile lymph nodes and lymph

nodes which were easily accessible experienced excision biopsy. Fixed lymph nodes or difficultly accessible or excise experienced an incision biopsy.

RESULTS:

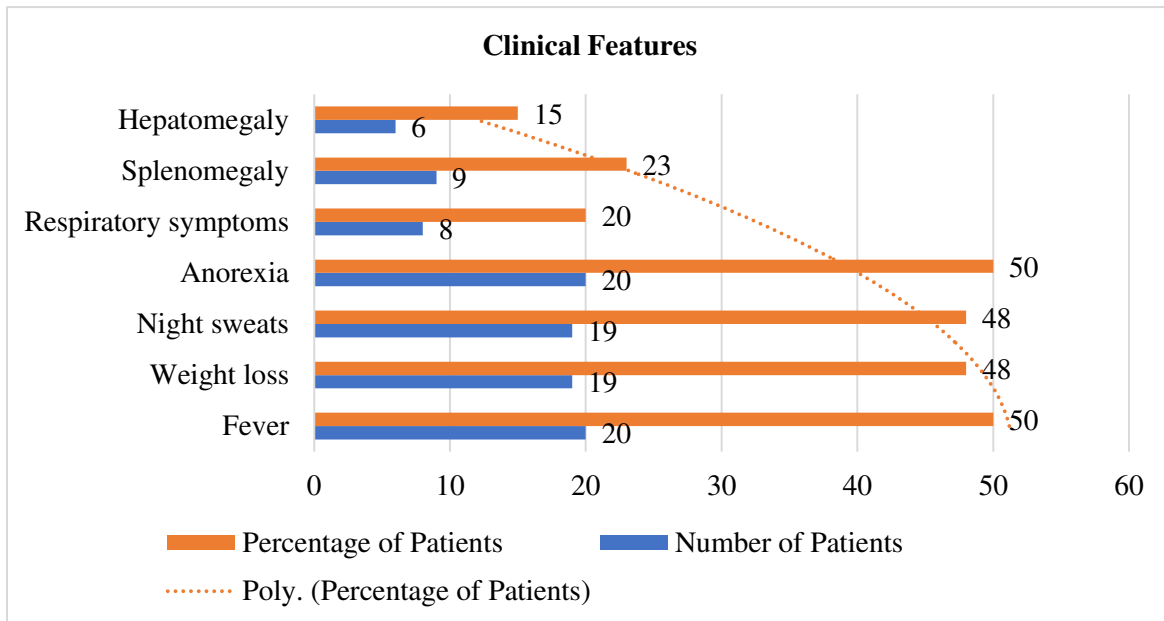
Research sample comprised on 498 patients who presented cervical lymphadenopathy, in the total population Hodgkin's lymphoma was observed in forty patients. Males were dominant as they comprised eighty percent of the total population. Mixed cellular activity was observed in fifty percent of the population; whereas, nodular sclerosis was observed in about 37.5% patients. A number of cases were at second and third stage of the disease. Seventy-five percent of the patients were observed with a survival rate of five percent. Every case who fulfilled the basic inclusion criteria was made a part of the research after informed consent. Male to female ratio was as that respective males were 281 and females were 217 diagnosed with cervical lymphadenopathy. In the research duration a total of incision and excision biopsy proportion was observed respectively 311 and 187 cases. The proportion of male and female as observed with the incidence of Hodgkin's Lymphoma were respectively males as 29/40 and females as 11/40.

In the age bracket of 1 – 35 years the mean age was observed as twenty-three years. Anorexia, night sweats, fever and loss of weight were commonly observed clinical characteristics. Table – I present detailed clinical characteristics of the research study. Various other lymph node groups including axillary, mediastinal and inguinal Lymph nodes were observed in twenty-two patients.

All the enlarged cervical lymph nodes presented no tenderness, discreteness, mobility and firmness in the Hodgkin's Lymphoma patients. In the total of forty patients jugulo-omohyoid and jugulodigastric contributed the most. In detail Hodgkin's lymphoma division in number of groups of the cervical lymph nodes is reflected in Table – II. Table – III represents the detailed analysis of the nodular sclerosis and mixed cellularity in the form of primary histopathological characteristics.

Table – I: Clinical Features (40)

Clinical Features	Number of Patients	Percentage of Patients
Fever	20	50
Weight loss	19	48
Night sweats	19	48
Anorexia	20	50
Respiratory symptoms	8	20
Splenomegaly	9	23
Hepatomegaly	6	15

**Table – II:** Involved Cervical Lymph nodes

Lymph node Group	Number of Patients	Percentage of Patients
Jugulodigastric	12	30
Jugulo-omohyoid	11	28
Supra clavicular	7	18
Submandibular	2	5
Posterior Auricular	2	5
Superficial Cervical Lymph nodes	4	10
Occipital	2	5

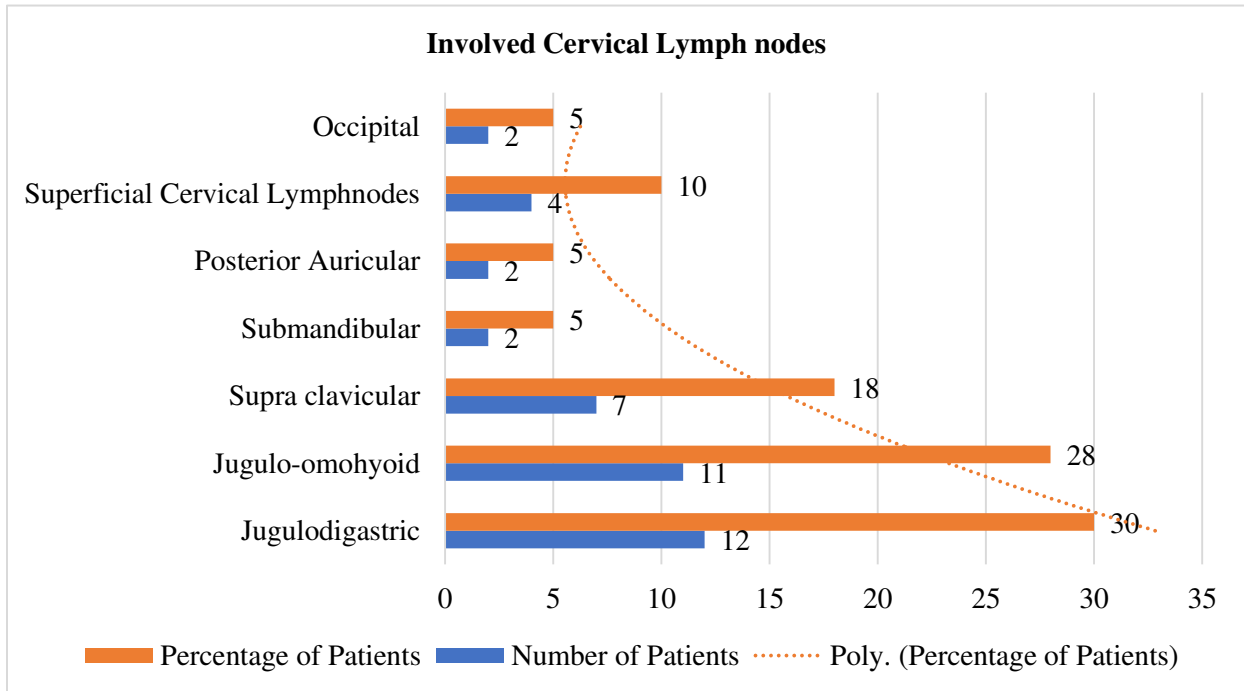


Table – III: Histopathological pattern (40)

Histopathological feature	Number of Patients	Percentage of Patients
Mixed cellularity	20	50
Nodular sclerosis	15	38
Lymphocyte Predominant	3	8
Lymphocyte depleted	2	5

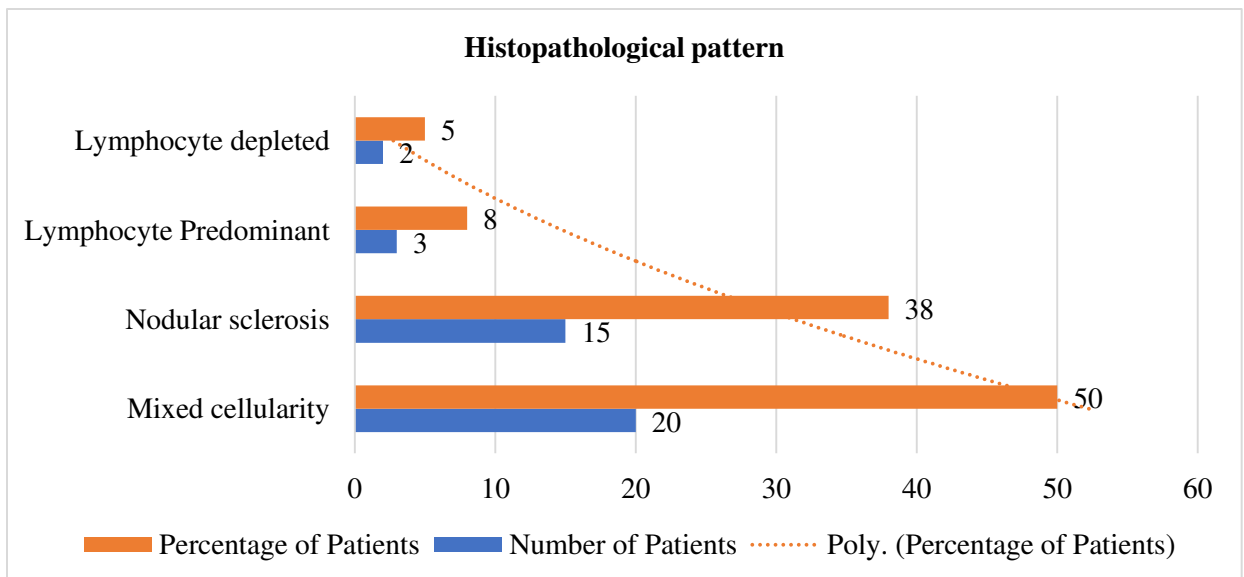
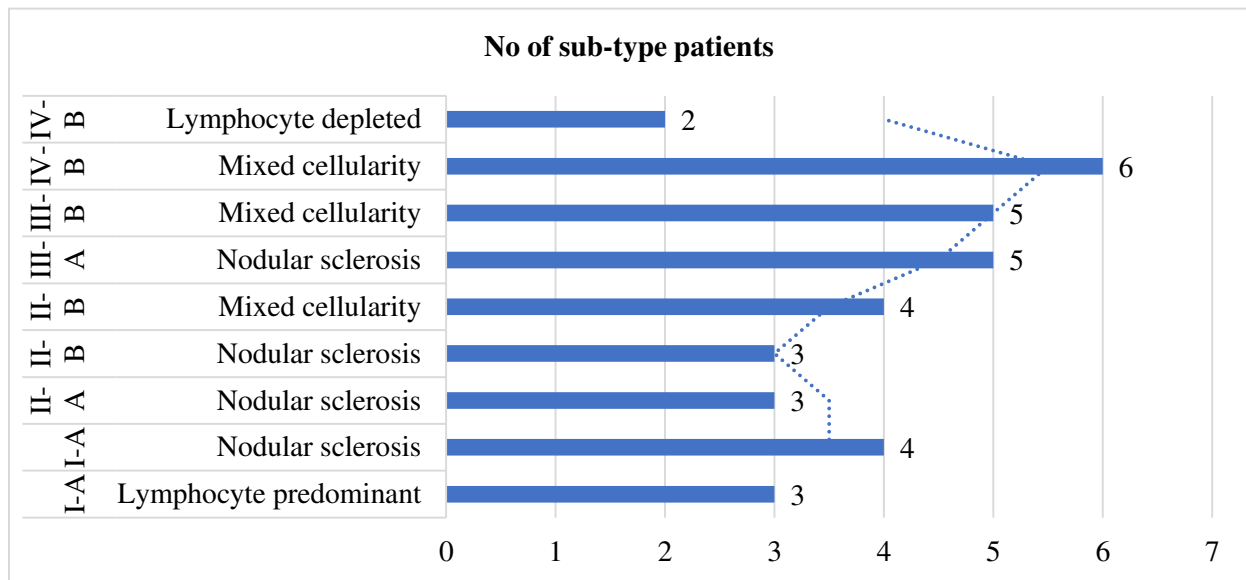
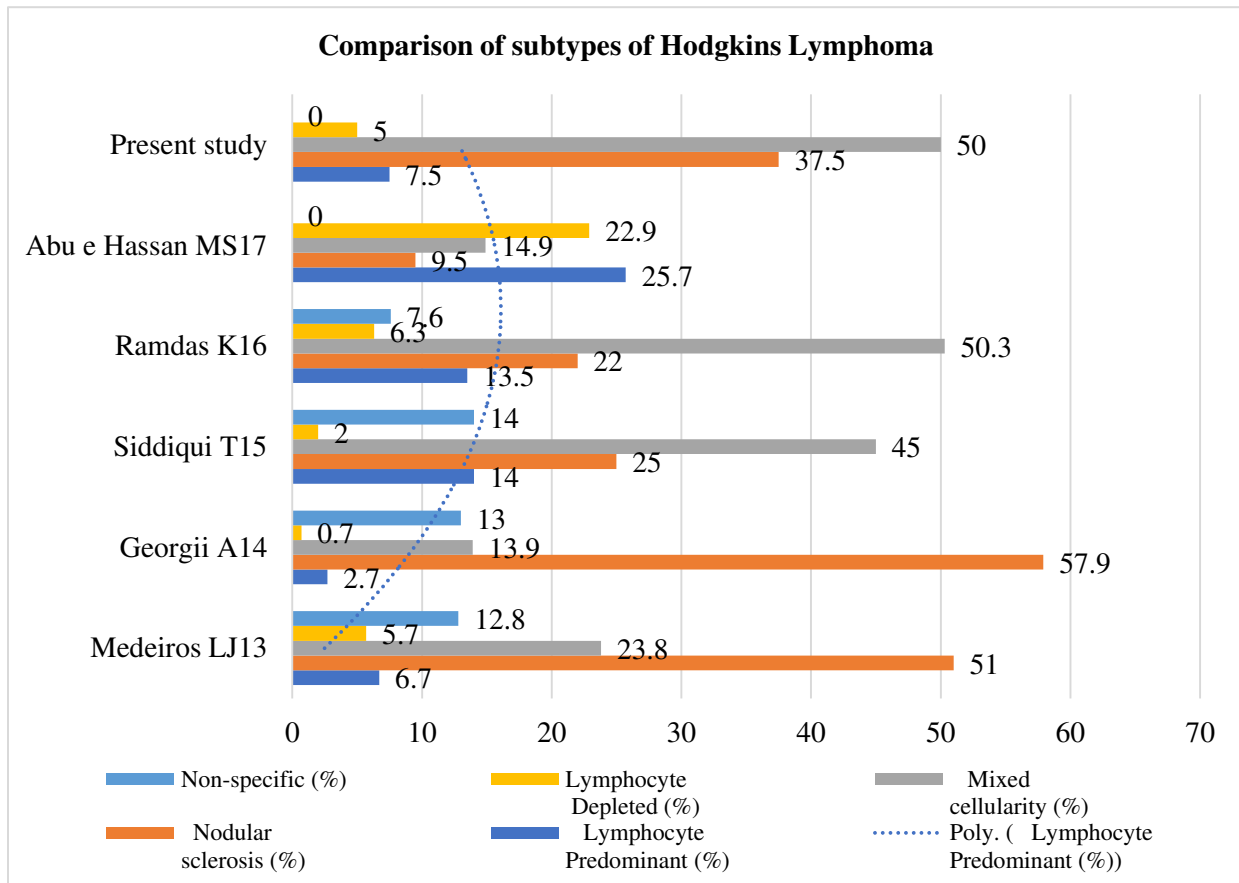


Table – IV: Staging of Hodgkin's Lymphoma

Stage	Histopathological	No of sub-type patients
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
IV – B	Mixed cellularity	6
IV – B	Lymphocyte depleted	2

**Table – V:** Comparison of subtypes of Hodgkin's Lymphoma

Study	Lymphocyte Predominant (%)	Nodular sclerosis (%)	Mixed cellularity (%)	Lymphocyte Depleted (%)	Non-specific (%)
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	-



Majority of the patients were at the third stage of disease. Table- IV presents a detailed distribution of the different lymphoma stages. A number of cases in the 1st and 2nd stage experienced a radiotherapy excluding the patients who had symptoms of “B”, having bulky bulky illness managed without radiotherapy or managed with chemotherapy. A follow-up was performed in 1st to 65th month with a median time duration of twenty-six months having 75% survival. Stage four patients having infiltration of the organs presented a poor prognosis than the 2nd and 3rd stage of the Nodal disease.

DISCUSSION:

A relatively rare disease is of Hodgkin's Lymphoma which differs in the differing social, economic, regional and geographical circumstances. Asian countries presented low incidence of the Hodgkin's Lymphoma and an additional genetic disease resistance to its development was also observed in these countries [3]. Involved risk factors of this disease are history of smoking, cancer environmental exposure or status which involves immune system.

Our research observed Hodgkin's lymphoma proportion as eight percent which can be compared to the reported outcomes of the other Asian nations and various other Asian authors [4]. Justified disease distribution was observed contrary to the research studies held on the western populations typically of the bimodal pattern. A research finds that about twenty percent cases were in the age bracket of above sixty years. Numerous other authors forward that disease of Hodgkin's was prevalent in the old age groups having a poor prognosis in the young aged population with a dominance of the males having a proportion of female to male as one to three patients [5].

Developed countries such as US also report male dominance in the incidence of Hodgkin's disease. Repeated subtype is nodular sclerosis was observed in the population of the western research studies [6]; whereas, in the countries like Pakistan repeated features of mixed cellularity were observed. Table – V shows various subtypes comparison about the

Hodgkin's Lymphoma with reference to other research studies [7].

In a research held in the backdrop of Taiwan was carried out on the thirty-four patients having the incidence of Hodgkin's Lymphoma reflected an advanced 3rd and 4th stage which was extreme observed as (80.6%) [8]. In the same research a portion was also observed with 3rd and 4th stage of clinical features with a proportion of (54%) [9]. In the management patients have a choice of chemotherapy and radiotherapy which is totally dependent on the clinical stage. Seventy-five percent cases survived in this disease which was comparable to another research observed as (83%) [10]. An early diagnosis can be helpful in the comprehensive disease management and clinical assessment [11].

CONCLUSION:

Hodgkin's lymphoma proportion in the cases of cervical lymphadenopathy was observed relatively low in the sample population of this particular research when compared to the population of the western research studies as stated by the western authors in the advanced level of the illness.

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