GALAXY INTERNATIONAL INTERDISCIPLINARY RESEARCH JOURNAL (GIIRJ)
ISSN (E): 2347-6915
Vol. 12, Issue 4, April (2024)

GENERAL MORPHOLOGICAL SIGNS OF HODGKIN'S LYMPHOMA

Kadamova M. A.,
Yuldashev B. S.,
Ruzmetov U. A.
Urgench branch of the Tashkent Medical Academy

ABSTRACT

The incidence of Hodgkin's lymphoma is slightly increased among individuals suffering from severe immunodeficiencies, in particular acquired immunodeficiency syndrome, congenital deficiency of the immune system, and immune disorders asso-ciated with organ transplantation. It should be noted that the degree of this increase is significantly lower than for non-Hodgkin lymphomas.

INTRODUCTION

In Russia, the incidence of Khodzhkin lymphoma is 2.2 cases per 100,000 inhabitants a year, reaching 0.61 cases per 100,000 inhabitants a year. According to some publications, for the first time in 2016, 3,129 people were diagnosed with Hodjkin lymphoma, of which 879 died. The disease occurs at different ages, mainly between the ages of 16 and 35, and in Russia, the rate of encounter among women in this age group prevails over men [2, 5,7,11,14,18].

Khodzhkin lymphoma is a relatively rare pathology, with the incidence rate observed in 24 cases per 100,000 people a year, while Hodjkin lymphoma accounts for about 0.5% of the total cancer. Khodjkin lymphomas occur in about 30% of total lymphomas. However, in the age group of 15-24, lymphocranulamatosis corresponds to every sixth patient in the cancer diagnosis. There are 2 age-related peaks in the incidence of Khodjkin's disease, the first occurring between the ages of 15 and 35 and the second after the age of 50-60. In females, such a pathology is observed about 2 times less often than in males. Geographical differences in the epidemiology of Khodzhkin lymphoma occur moderately. The maximum incidence of Hodjkin lymphoma was recorded in parts of Connecticut, San Francisco and Italy. In developing countries, the disease is slightly more common in children between the ages of 5 and 9 [1,5,11,17,19,22,25].

Hodjkin lymphoma, which has a lymphocytic advantage, is a B-cell lymphoma that has historically been classified as a group of Khodjkin lymphomas, despite its clinical trials, treatment and prognosis characteristics, as well as classical morphological, immunogistochemical differences.

According to world literature, The prevalence of the disease accounts for 5-10% of all cases of Khodzhkin lymphoma [1, 4,7,9,11,13,15,16,18,21], in children - between 10 and 12% [2,8,16,17,23,24]. The highest level of the disease occurs in the 4-5th decade andadolescence, and the earliest age of the onset of Khodjkin lymphoma mentioned in the literature is 2 years [3,7,10,12,17,20]. The rate of reunion among men and women is 3:1 [1,14,21,24]. In studies in children's populations, the prevalence of the specific disease occurs among men until 6.25:1 [4-6]. Clinical manifestations of Khodzhkin lymphoma in childrenare no different from those of adults, in most cases the only symptom is a regional expansion of the peripheral lymph nodes, mainly on the diaphragm, which coincides with Stage I-II of Ann Arbor[4-9].

RESEARCH MATERIALS AND METHODS. The study provided a retrospective analysis of data on 31 patients diagnosed with Khodjkin lymphoma during 2019-2024 at the Histological Laboratory of the Khmer Rouge branch of the Republican Specialized Scientific and Practical Medical Center for Oncology and Radiology. Of the 31 patients involved in the study, 16 of them wereboys and 15 were girls between the ages of 3 and 18, with an average age of 10±7.5 years. The diagnosiswas establishedby identifying a growth modelaccordingto the World Health Organization's 2016 classification. In each case, histological preparations should be taken into account. Histological testing methods are widely used in the field of diagnosis. The resulting embryo was allowed to develop in nutrients and then inserted intoher 50s. Thirty-one patients have complete clinical data, and clinical appearance and phase were evaluated using anemic and observational data, as well as medical documents, and studied in phases according to the Anna Arbor classification.

Analysis of the data obtained was carried out using the original methods [18]. Fisher's definitive test was used to compare and assess the statistical significance of differences in core and control groups.

RESULTS OF THE STUDY

During retrospective analysis of 38 morphologically confirmed cases of Khojkin lymphoma between 2019 and 2024, the prevalence of the disease among children in all identified cases of classical type Khodjkin lymphoma identified at the Khmer Rouge branch of the Republican Specialized Scientific and Practical Medical Center for Oncology and Radiology accounts for 5.3% (2). The average age is 10±7.5 years old, and the ratio of men and women is 1.2:1. From the appearance of the first signs of the disease until the diagnosis is made, the period from 1 month to 6 years. Of the patients, 14 (36.8%) identified stage I of the disease during the initial examination, 18 (47.4%) identified Phase II, 4 (10.5%) identified Phase III, 2 (5.3%) - Stage IV. The significant preponderance of early stages was 2(84%) in Phase I-II, including 92.1% (n=35) of diaphragm lymph nodes, and 7.9% (n=3) of lymph nodes under the diaphragm. Among patients with early stages, the most common condition was observed in 20 (52.6%) of 38 cases of head and neck lymph nodes. In 7 (18.4%) case, one-sided damage to the underlying lymph nodes, combined injuries to the side, chow, and thigh lymph nodes in 1 (3.8%) state, and the remaining 6 (15.8%) cases are characterized by damage to the head and neck lymph nodes, as well as damage to the accents and mediastinal lymph nodes. With additional instrumental examination in stage I-II patients, mediastinal lymph node damage was recorded in 3 (7.9%) cases. Initial examination found that stage III-IV was detected in 15.8% (n=6) cases of general damage to the lymph nodes on both sides of the diaphragm, including 18.4% (n=7) in the chest lymph nodes and 63.2% (n=24) in the abdominal cavity. 9,7% of patients in this group showed signs of extranodal processes involving spleen in the first case and skeletal bones in the second. In 55.3% of patients (n=21), 3 groups of lymph nodes or more were diagnosed with damage. In 5 patients (13.2%), the disease developed with symptoms of intoxication, 4 of which were stage II of the disease and 3 had stage I. Most patients (n=26) have laboratory data for evaluation, and changes in them are recorded only in 6 patients with stage II-IV and general damage to the lymph nodes and participation of skeletal bones in the pathological process.

The duration of observation after the treatment is completed is from 1 to 24 months. During this time, none of the patients received reliable information about the recurrence or development of the disease.

DISCUSSION OF THE RESULTS OF THE STUDY

The results of analysis of worldwide literature show that patients with Hodgkin lymphoma are more likely to have a local stage at the time of diagnosis than patients with classical noxodgkin lymphoma. In studies, 84% of patients with Hodgkin lymphoma manifested in Phase I-II and no risk factors were observed, while in cases of classical Hodgkin lymphoma, risk factors were detected in only 23.5% of cases at an early stage. In children, the disease is also detected in the early stages.

In our study, 18 (52%) of the 38 cases identified sample A. Among the histopathological variants in the same study, sample E was most common (54%), in our patient group it was not identified during initial biopsy, the most common variant was expressed in sample C of 18.4% (n=7;), the remaining 5 cases were represented by sample F. In cases of recovery, there is a risk of spreading the disease.

During consolidation therapy, bone marrow autotransplantation was followed by the first relapses with morphology similar to histological testing, while with general lymphadenopathy and bone marrow damage, the second relapse developed. At the time of publication of the article, an allogenic bone marrow transplant was performed from an unrelated donor, with full remission cases observed for 28 months from the day the patient was performed.

CONCLUSION

The study did not find statistically important differences between the clinical course of patients with typical sample and variations, which is likely due to a lower number of patients in the sample. Further studies with a large group of patients will determine the importance of the morphological pattern to form a prognostic scale and divide patients into groups.

Given the risk of a bad response to therapy or a shift towards a more awkward prognostic option with relapses, a recurrent exoskeletal biopsy is recommended for children with Hodgkin lymphoma to opt for the optimal treatment that is not currently available.

REFERENCES

1. Avezov A.U. Oncopathology: bilan kasallangan bemorlarda, venosis, thromboembolyani zamonaviy, usullar bilan tekshirish. "Actual Problems of Pediatric Radiology" International Scientific and Practical Journal 2019. page 10
2. Avezov A.U. Modern innovative studies of venous thromboembolism in patients with oncopatology. Pediatrics. Tashkent. 2019, pp.10-15.
3. Авезов А.У. Хавфли ўсма касалликларида ўпка артериялари тромбо-эмболияси ривожланишида кузатиладиган хавф омилларининг тарқалиш даражасини ўрганиш. “Биомедицина ва амалиёт” журнали Ташкент, 2020 № 4 сон, 5 жилд, 132-138- б
4. Aitimova G. Yu., Avezov A. U., Urunbaeva N. A. Study of peripheral arterial diseases among the population of the Kharezm region // "Yosh olimlar tibbiyot jurnali" Tashkent medical academy "Medical journal of young scientists" Education, Science and Innovative

Ideas in the World Issue No-32 Part–1_ November –2023 Tashkent Medical Academy. 2022. No3– P. 7-15
5. Нишанов Д.А., Авезов А.У. Хавфли ўсма касалликларида ўпка арте-рияси тромбоэмболиясини аниқлаш усули. Ташкент. 2020.
6. Rozykhodzhaeva G, Aitimova G, Ikramova Z, Avezov A.U., Rozykhodjaeva F (2020) Ankle-brachial index in the study of the prevalence of peripheral arterial diseases among the population of Uzbekistan. Ann Med & Surg Representative: AMSCR-100040, 2020
7. Komkov A.Yu., Miroshnichenkova A.M., Olshanskaya Yu.V., Myakova N.V., Dyakonova Yu.Yu., Minervina A.A., et al. Detection of immunoglobulin gene rearrangements in acute lymphoblastic leukemia using high-throughput sequencing of the new generation. Hematology and Transfusiology 2016; 61 (4): 200–204
8. Avezov A. et al. Study of the development level of risk factors in dangerous tumors causing lonely arterial thromboembolia //International Journal of Advanced Science and Technology. – 2020. – T. 29. – №. 5. – P. 1751-1760.
9. Aytimova G. Yu., Avezov A. U., Urunbaeva N. A. Study of peripheral arterial diseases among the population of the Kharezm region// Tashkent medical academy «Medical journal of young scientists». 2022. №3– P. 7-15.
10. Churchill H.R., Roncador G., Warnke R.A., Natkunam Y. Programmed death 1 expression in variant immunoarchitectural patterns of nodular lymphocyte predominant Hodgkin lymphoma: comparison with CD57 and lymphomas in the differential diagnosis. Hum Pathol 2010; 41 (12): 1726–1734
11. Gloghini A., Bosco A., Ponzoni M., Spina M., Carbone A. Immunoarchitectural patterns in nodular lymphocyte predominant Hodgkin lymphoma: pathologic andclinical implications. Expert Rev Hematol 2015; 8 (2): 217–223
12. Hall G.W., Katzilakis N., Pinkerton C.R., Nicolin G., Ashley S., Shankar A., et al. Outcome of children with nodular lymphocyte predominant Hodgkin lymphoma – a Children's Cancer and Leukaemia Group report. Br J Haematol 2007; 138 (6): 761–768
13. Hartmann S., Eichenauer D.A., Plütschow A., Mottok A., Bob R., Klapper W. The prognostic impact of variant histol ogy in nodular lymphocyte-predominant Hodgkin lymphoma: a report from the German Hodgkin Study Group (GHSG). Blood 2013; 122 (26): 4246–52
14. Huppmann A.R., Nicolae A., Slack G.W., Pittaluga S., Davies-Hill T., Ferry J.A., et al. EBV may be expressed in the LP cells of nodular lymphocyte-predominant Hodgkin lymphoma (NLPHL) in both children and adults. Am J Surg Pathol 2014; 38 (3): 316–324
15. Mauz-Körholz C., Gorde-Grosjean S., Hasenclever D., Shankar A., Dörffel W., et al. Resection alone in 58 children with limited stage, lymphocyte-predominant Hodgkin lymphoma-experience from the European network group on pediatric Hodgkin lym-phoma. Cancer 2007; 110(1): 179–185
16. Mauz-Körholz C., Lange T., Hasenclever D., Burkhardt B., Feller A.C., Körholz D., et al. Pediatric Nodular Lymhocyte-predominant Hodgkin Lymphoma: Treatment Recommendations of the GPOH-HD Study Group. Klin Padiatr 2015; 227 (6–7): 314–321

17. Murphy S.B., Morgan E.R., Katzenstein H.M., Kletzel M. Results of little or no treatment for lymphocyte-predominant Hodgkin disease in children and adolescents. J Pediatr Hematol Oncol 2003; 25 (9): 684–687
18. Nogová L., Reineke T., Josting A., Müller-Hermelink H.K., Eich H.T.,Behringer K., et al. Lympho-cyte-predominant and classical Hodgkin's lymphoma-comparison of outcomes. EurJ Haematol Suppl 2005; (66): 106–110
19. Pellegrino B., Terrier-Lacombe M.J., Oberlin O., Leblanc T., Perel Y., Bertrand Y.,et.al. Study of the French Society of Pediatric Oncology. Lymphocyte-predominant Hodgkin's lymphoma in children: therapeutic abstention after initial lymph node resection--a Study of the French Society of Pediatric Oncology. J Clin Oncol 2003; 21 (15): 2948–2952
20. Rozykhodzhaeva G, Aitimova G, Ikramova Z, Avezov A.U., Rozykhodzhaeva F (2020) Ankle-brachial index in studying the prevalence of peripheral arterial diseases among the population of Uzbekistan. Representative Ann Med & Surg: AMSCR-100040, 2020
21. Shankar A.G., Kirkwood A.A., Depani S., Bianchi E., Hayward J., Hall G.W., et al. Relapsed or poorly responsive nodular lymphocyte predominant Hodgkin lymphoma in children and adolescents – a report from the United Kingdom's Children's Cancer and Leukaemia Study Group. Br J Haematol 2016; 173 (3):1–31
22. Shankar A.G., Kirkwood A.A., Hall G.W.,Hayward J., O'Hare P., Ramsay A.D. Childhood and Adolescent nodular lymphocyte predominant Hodgkin lymphoma -A review of clinical outcome based on the histological variants. Br J Haema-tol 2015; 171 (2): 254–262.
23. Shankar A., Hall G.W., Gorde Grosjean S., Hasenclever D., Leblanc T., Hayward J., et al. Treatment outcome after low intensity chemotherapy [CVP] in children and adolescents with early stage nodular lymphocyte predominant Hodgkin's lymphoma - an Anglo-French collaborative report. Eur J Cancer 2012; 48 (11): 1700–1706
24. Swerdlow S.H., Campo E., Harris N.L.World Health Organization classification of haematopoetic and lymphoid tissues. Lyon: IARC Press; 2017. Pp. 323–325.
25. Xu-Monette Z.Y., Li J., Xia Y., Crossley B.,Bremel R.D., Young K.H., et al. Immu-noglobulin somatic hypermutation has clinical impact in DLBCL and potential implica-tions for immune check point blockade and neoantigen-based immunotherapies. J Immunother Cancer 2019; 7 (1): 272.