

Understanding non-hodgkin lymphoma: Types, symptoms, and treatment.

Oliver Brown*

Department of Oncology, University of Melbourne, Australia

Introduction

Non-Hodgkin lymphoma (NHL) is a type of cancer that originates in the lymphatic system, which is part of the body's immune system. Unlike Hodgkin lymphoma, which is characterized by the presence of Reed-Sternberg cells, NHL comprises a diverse group of lymphomas with different subtypes, characteristics, and treatment approaches. In this article, we will explore the complexities of non-Hodgkin lymphoma, including its types, risk factors, symptoms, diagnosis, and treatment options [1].

Non-Hodgkin lymphoma encompasses a wide range of lymphomas, which can be classified based on various factors, including cell type, growth pattern, and genetic features. Some common types of NHL include: Diffuse Large B-cell Lymphoma (DLBCL): DLBCL is the most common subtype of NHL and typically presents as rapidly growing tumors in lymph nodes or other organs [2].

Follicular Lymphoma: Follicular lymphoma is a slow-growing NHL that arises from B-lymphocytes and often involves the lymph nodes, bone marrow, and spleen. Mantle Cell Lymphoma: Mantle cell lymphoma is an aggressive NHL that arises from B-lymphocytes in the mantle zone of lymphoid tissue and often involves the lymph nodes, bone marrow, and gastrointestinal tract [3].

Marginal Zone Lymphoma: Marginal zone lymphoma encompasses three subtypes: extranodal marginal zone lymphoma (MALT lymphoma), nodal marginal zone lymphoma, and splenic marginal zone lymphoma. These lymphomas typically arise from B-lymphocytes in the marginal zone of lymphoid tissue [4].

The exact cause of non-Hodgkin lymphoma is not fully understood, but several factors may increase the risk of developing the disease. These risk factors include: Age: Non-Hodgkin lymphoma is more common in older adults, with the risk increasing with age. Gender: Men are slightly more likely than women to develop NHL. Weakened immune system: Conditions or treatments that weaken the immune system, such as HIV/AIDS, organ transplantation, or certain medications, can increase the risk of NHL [5].

Infections: Certain infections, such as Epstein-Barr virus (EBV), human T-cell lymphotropic virus (HTLV), *Helicobacter pylori*, or hepatitis C virus (HCV), may increase

the risk of NHL. Chemical exposure: Exposure to certain chemicals, such as pesticides, solvents, or herbicides, may be associated with an increased risk of NHL [6].

The symptoms of non-Hodgkin lymphoma can vary depending on the subtype of lymphoma, the organs involved, and the stage of the disease. Common symptoms may include: Swollen lymph nodes in the neck, armpits, or groin, Fever, Night sweats, Unintentional weight loss [7].

Diagnosing non-Hodgkin lymphoma typically involves a combination of medical history, physical examination, imaging studies, laboratory tests, and tissue biopsy. Blood tests such as complete blood count (CBC), blood chemistry tests, and lactate dehydrogenase (LDH) levels may be performed to assess blood cell counts and organ function. Imaging studies such as computed tomography (CT) scans, magnetic resonance imaging (MRI), or positron emission tomography (PET) scans may be used to evaluate the extent of disease involvement and detect abnormalities [8].

Treatment for non-Hodgkin lymphoma depends on various factors, including the subtype of lymphoma, stage of the disease, and individual patient factors. Common treatment options may include: Chemotherapy: Chemotherapy drugs are used to kill cancer cells and inhibit their growth, often administered in combination with other medications or treatments. Immunotherapy: Immunotherapy drugs such as monoclonal antibodies or immune checkpoint inhibitors may be used to stimulate the immune system and target cancer cells more effectively [9].

The prognosis for individuals with non-Hodgkin lymphoma varies depending on factors such as the subtype of lymphoma, stage of the disease, response to treatment, and overall health status. With advancements in diagnosis and treatment, many patients with NHL achieve remission or long-term survival. However, the outlook can vary significantly between different subtypes of NHL, and some cases may be more challenging to treat than others [10].

Conclusion

Non-Hodgkin lymphoma is a diverse group of cancers that affect the lymphatic system, with various subtypes and treatment approaches. By understanding the risk factors, symptoms, diagnosis, and treatment options for non-Hodgkin lymphoma, healthcare providers can effectively manage and

*Correspondence to: Oliver Brown, Department of Oncology, University of Melbourne, Australia, E-mail: Brown77@unimelb.edu.au

Received: 28-Feb-2024, Manuscript No. AAHBD-24-135712; Editor assigned: 01-Mar-2024, PreQC No. AAHBD-24-135712(PQ); Reviewed: 14-Mar-2024, QC No. AAHBD-24-135712; Revised: 20-Mar-2024, QC No. AAHBD-24-135712(R); Published: 27-Mar-2024, DOI: 10.35841/aahbd-7.1.175

support individuals affected by this disease. Through ongoing research, education, and advocacy efforts, we can continue to improve outcomes for patients with non-Hodgkin lymphoma and strive for better treatments and ultimately, a cure.

Reference

1. Ansell SM. Non-Hodgkin lymphoma: Diagnosis and treatment. In Mayo Clinic Proceedings 2015 (Vol. 90, No. 8, pp. 1152-1163). Elsevier.
2. Chiu BC, Hou N. Epidemiology and etiology of non-hodgkin lymphoma. Non-Hodgkin lymphoma: pathology, imaging, and current therapy. 2015:1-25.
3. Holdsworth F, Worku D, Bretton AL, Vella C, Walker E. A guide to Hodgkin and non-Hodgkin lymphomas: similarities and differences. British Journal of Nursing. 2021;30(17):S16-22.
4. Chircop D, Scerri J. Being diagnosed with cancer: The experiences of patients with non-Hodgkin's lymphoma. Journal of Clinical Nursing. 2017;26(23-24):4899-904.
5. Armitage JO. Treatment of non-Hodgkin's lymphoma. New England Journal of Medicine. 1993 Apr 8;328(14):1023-30.
6. Hochberg J. Adolescent non-Hodgkin lymphoma and Hodgkin lymphoma: State of the science. British journal of haematology. 2009;144(1):24-40.
7. Armitage JO. Staging non-Hodgkin lymphoma. CA: a cancer journal for clinicians. 2005;55(6):368-76.
8. Smith SK, Zimmerman S. Health status and quality of life among non-Hodgkin lymphoma survivors. Cancer: Interdisciplinary International Journal of the American Cancer Society. 2009;115(14):3312-23.
9. Ganapathi KA, Brown LE, Prakash S, Bhargava P. New developments in non-Hodgkin lymphoid malignancies. Pathology. 2021;53(3):349-66.
10. Musshoff K, Brücher H. Diagnostic and therapeutic problems in non-Hodgkin lymphomas. Blut. 1981;43(3):143-54.