Hodgkin lymphoma: Understanding a classic blood cancer.

Cameron Brooks*

Department of Bleeding Disorders, University of Toronto, Canada

Introduction

Hodgkin lymphoma (HL), also known as Hodgkin's disease, is a type of cancer that originates in the lymphatic system, specifically from B lymphocytes, a type of white blood cell. It is characterized by the presence of Reed-Sternberg cells, large abnormal cells found in the lymph nodes [1].

HL is one of the most curable forms of cancer, with high survival rates, especially when diagnosed and treated in its early stages. This article provides an overview of Hodgkin lymphoma, including its epidemiology, etiology, clinical presentation, diagnosis, and treatment modalities [2].

Hodgkin lymphoma accounts for a minority of all lymphomas, comprising approximately 10% of cases. It primarily affects young adults aged 15-35 years and older adults over the age of 55, with a slight male predominance [3].

Epstein-Barr Virus (EBV) Infection: EBV, a member of the herpesvirus family, is implicated in the pathogenesis of some cases of HL, particularly in young adults. Genetic Predisposition: Individuals with a family history of HL or other lymphoproliferative disorders have an increased risk of developing the disease [4].

Immunodeficiency: Immunocompromised individuals, such as those with HIV/AIDS or those who have undergone organ transplantation and require immunosuppressive therapy, are at higher risk. Environmental Factors: Exposure to certain chemicals, such as pesticides and solvents, as well as a history of infectious mononucleosis, have been associated with an increased risk of HL [5].

The clinical presentation of Hodgkin lymphoma varies depending on the stage and extent of the disease. Common signs and symptoms include: Painless Lymphadenopathy: Enlarged lymph nodes, usually in the neck, armpits, or groin. B Symptoms: Fever, night sweats, and unintentional weight loss (>10% of body weight over six months) [6].

Pruritus: Itching, often in the absence of a rash. Fatigue: Generalized weakness and lethargy. Alcohol-Induced Pain: Pain or discomfort in lymph nodes after alcohol consumption (a characteristic feature of HL) [7].

The diagnosis of Hodgkin lymphoma is established through a combination of clinical evaluation, imaging studies, and tissue biopsy. Diagnostic modalities include: Physical Examination: Assessment of lymph node enlargement and other signs of disease involvement. Imaging: CT scans, PET scans, and MRI are used to evaluate the extent of disease spread [8].

Biopsy: Histopathological examination of lymph node or extranodal tissue to identify Reed-Sternberg cells and confirm the diagnosis. Laboratory Tests: Complete blood count, erythrocyte sedimentation rate (ESR), and liver function tests may show nonspecific abnormalities [9].

The treatment of Hodgkin lymphoma depends on the stage, histological subtype, and patient factors. Common treatment modalities include: Chemotherapy: Combination chemotherapy regimens, such as ABVD (doxorubicin, bleomycin, vinblastine, dacarbazine) or BEACOPP (bleomycin, etoposide, doxorubicin, cyclophosphamide, vincristine, procarbazine, prednisone), are used as first-line therapy [10].

Conclusion

Hodgkin lymphoma is a treatable and often curable form of cancer, with excellent long-term survival rates, particularly in young patients. Advances in diagnosis, staging, and treatment have led to significant improvements in patient outcomes. However, challenges remain in the management of relapsed or refractory disease and the long-term consequences of treatment. Ongoing research efforts aim to further optimize therapy and minimize treatment-related toxicity, ultimately improving the quality of life for individuals affected by Hodgkin lymphoma.

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***Correspondence to:** Cameron Brooks, Department of Bleeding Disorders, University of Toronto, Canada, E-mail: brooks@utoronto.ca

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