



Onco News

Published by: Somex Research and Health Pvt. Ltd.

(A Clinical Research and Academic Organisation) www.somexresearch.com

From the Desk of Editor

Dear Readers,

Happy New Year!

I am happy to share with you that ONCONEWS is completing second year of it's publication. Your regular suggestions and feedback have given me strength to publish it. In this issue I am covering Non Hodgkin lymphoma (NHL), whose diagnostic and therapeutics have changed a lot. With introduction of monoclonal antibodies like rituximab outcome have improved dramatically. Autologous transplantation in relapse/refractory situations have given real hopes in this situation too.



With regards
Dr. Naresh Somani
M.D., D.M.
Senior Medical Oncologist

Non-Hodgkin Lymphomas (NHL)

The Non-Hodgkin Lymphomas are a diverse group of diseases, all arising from the lymphoid arm of the immune system, ranging from relatively benign diseases with more than a 20-years survival to diseases from which the majority of patients die within 6 months.

Incidence: The incidence has doubled in the last three decades.

Risk factors: Although the pathogenesis of most of NHL is unknown, identified risk factors can be divided into the five categories.

Classification of Non-Hodgkin Lymphomas:

Today's classification depends on morphology, clinical aspects, flow cytometry, cytogenetics and molecular studies.

WHO Classification of NHL:

B-cell lymphoma:

- Precursor B-cell neoplasmas
- Precursor B-lymphoblastic leukemia/lymphoma

Mature B-NHL:

- Small lymphocytic lymphoma (lymphomatous manifestation of chronic lymphocytic leukemia)
- Lymphoplasmacytic lymphoma
- Splenic marginal zone lymphoma
- Extranodal marginal zone lymphoma of mucosaassociated lymphoid tissue (MALT-lymphoma)

- Nodal marginal zone lymphoma
- Follicular lymphoma
- Mantle cell lymphoma
- Diffuse large B-cell lymphoma
- Mediastinal (thymic) large B-cell lymphoma
- Intravascular large B-cell lymphoma
- Primary effusion lymphoma
- Burkitt lymphoma/leukemiaT-cell and NK-cell lymphoma
- Precursor T-cell neoplasm
- Precursor T-lymphoblastic lymphoma/leukemia Contd.

T-cell and NK-cell neoplasm

Cutaneous

- Mycosis fungoides
- Sezary syndrome
- Primary cutaneous anaplastic large cell lymphoma
- Lymphomatoid papulosis

Extranodal

- Extranodal NK/T-cell lymphoma, nasal type
- Enteropathy-associated T-cell lymphoma
- Hepatosplenic T-cell lymphoma
- Subcutaneous panniculitis-like T-cell lymphoma

Nodal

- Angioimmunoblastic T-cell lymphoma
- Anaplastic large T-cell lymphoma
- Peripheral T-cell lymphoma, unspecified

Leukemic

- T-cell prolymphocytic leukemia
- T-cell large granular lymphocytic leukemia
- Aggressive NK-cell leukemia
- Adult T-cell leukemia/lymphoma

Clinical features and staging of non-hodgkin lymphomas

I. Clinical features:

The majority of adult patients (60%-70%) present with nodal disease, whereas most children present with extranodal disease. For clinical management and treatment decision-making, the NHL-can be divided into three types:

- Aggressive
- Intermediate
- Indolent

Clinical aspects of major NHL disease

Aggressive

- Burkitt's
- LBL

Intermediate

- DLC B-cell
- Anaplastic large cell
- Peripheral T-cell

Indolent

- Follicular
- SLL
- Mantle cell
- MALT
- Marginal zone, nodal
- Lymphoplasmacytic

II.Staging:

Once a pathological diagnosis of lymphoma has been made through biopsy of a lymph node or an involved extranodal site, a thorough evaluation is undertaken.

Radiographic studies include CT scan of the chest, abdomen and pelvis and a PET scan. Medical emergencies associated with NHL include the following:

- Mediastinal obstruction
- Obstructive nephropathy
- Spinal cord compression
- Hypercalcemia
- Other metabolic derangements

Prognosis:

International prognostic index (high-grade non-hodgkin lymphomas)

The international Prognostic Index (IPI provide prognostic information on patients based on the presence or absence of five factors:

- Age >60 years
- Stage III or IV
- Number of extranodal sites > 1
- Elevated LDH
- ECOG performance status ≥ 2

Gene expression profiling

Recently, the use of microarrays to develop gene-expression profiles has provided additional prognostic information for follicular lymphoma and DLBCL.

Management strategies

I.Low-grade non-hodgkin lymphoma

Despite recent advances, such as the addition of rituximab to therapeutic regimens, there is no known cure for low grade lymphomas. Early intervention does not provide a survival advantages Treatment is typically delayed until the following occur:

- Rapidly progressive disease
- Organ impairment
- Disease-related symptoms

The only exception to this rule is for the small number of patients with stage I disease for whom involved field radiotherapy may offer the chance of prolonged disease free survival.

Initial treatment:

The mainstay of therapy is a combination of chemotherapy and the monoclonal anti-CD20 antibody rituximab (R). Younger patients or those with many symptoms may begin treatment with a multiagent regimen such as R-bendamustine. R-CHOP or R-CVP (rituximab, cyclophosphamide, vincristine, prednisone, doxorubicin) and occasionally R-FC (rituximab, fludarabine, cyclophosphamide); there is no known advantage of one regimen overthe other.

Older patients or those with few symptoms may begin treatment with single-agent rituximab. Maintenace rituximab is well tolerated and improves the progression free survival, so this is occasionally administered every 2-3 months for 2 years after completing chemotherapy.



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Treatment of relapsed disease:

At the time of relapse, depending on the length of the first remission, treatment may consist of the following:

- Retreatment with the initial chemotherapy.
- A new regimen may be used if the first duration was short
- The patient may move toward a form of stem cell transplantation.

II. Aggressive lymphomas (diffuse large B-cell lymphoma): Initial treatment

Initial therapy for DLBCL requires 6-8 cycles of chemotherapy with the R-CHOP regimen given every 14-21 days. Patient with limited disease may be treated with fewer cycles of R-CHOP (usually 3 cycles) followed by involved field radiation therapy.

Treatment of relapsed disease

Patient with relapsed DLBCL should be treated with a salvage chemotherapy regimen followed by high-dose chemotherapy and autologous stem cell transplantation.

III. Highly aggressive lymphomas (Burkitt lymphoma, lymphoblastic lymphoma) Burkitt lymphoma, endemic

- Endemic in equatorial Africa
- 90% associated with EBV infection
- Young adults and children, present with head and neck tumors.

Burkit lymphoma, nonendemic

- NHL is associated with EBV in approximately 20%
- Abdominal disease is more common
- Associated with HIV infection

Lymphoblastic lymphoma

- Presents with or without leukemia
- More common in children than adults
- Most often T-cell type, typically featuring a mediastinal mass and pleural effusion.

Treatment

Highly aggressive lymphomas such as Burkitt lymphoma and lymphoblastic lymphoma are treated with intensive chemotherapy regimens similar to those used in the treatment of acute lymphoblastic leukemia. Due to the high risk of CNS involvement, CNS prophylaxis with intrathecal chemptherapy is an important part of therapy.

Although not required in the treatment of Burkitt lymphoma, maintenance therapy with 6-mercaptopurine, methotrexate, vincristine and dexamethasone is required for several years after completion of chemotherapy for lymphoblastic lymphoma.

Recent Activities of SoMex

- SoMex organized 2nd Annual Indian breast cancer conference (International meeting) on 5th to 7th October 2018.
 (Accrediated by RMC) For details log on www.ibccindia.com
- SoMex organized CME on "HCC" on 14 September 2018.
- SoMex organized CME on "CLL" on 5 September 2018 with International speaker.

Onco Facts

Adjuvant therapy with a modified FOLFIRINOX regimen leads to significantly longer survival than gemcitabine among patients with resected pancreatic cancer.

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Dr. Naresh Somani M.D., D.M, Editor, Newsletter

SoMex Research & Health Pvt. Ltd. (A Clinical Research and Academic Organization)

277, IInd Floor, Shri Gopal Nagar, 80 Feet Road, Gopalpura Bye Pass (Parsuram Marg), Jaipur-302019

Printed and Published by:

Dr. Naresh Somani on behalf of SoMex Research & Health Pvt. Ltd., Jaipur.

Ph. 0141-2504996, 8104124996, • Email: contact@somexresearch.com • Twitter ☑ @DrNSomani