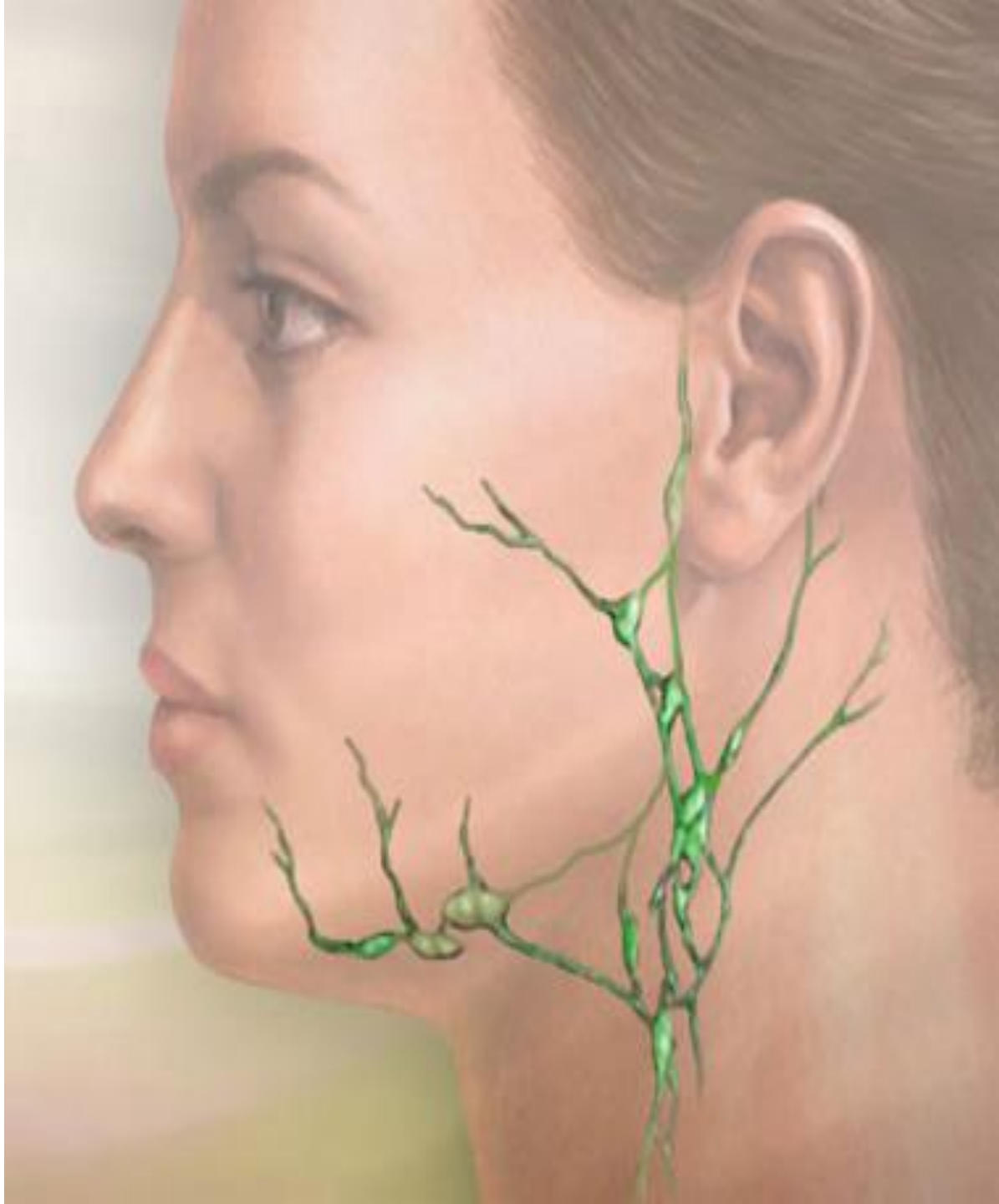
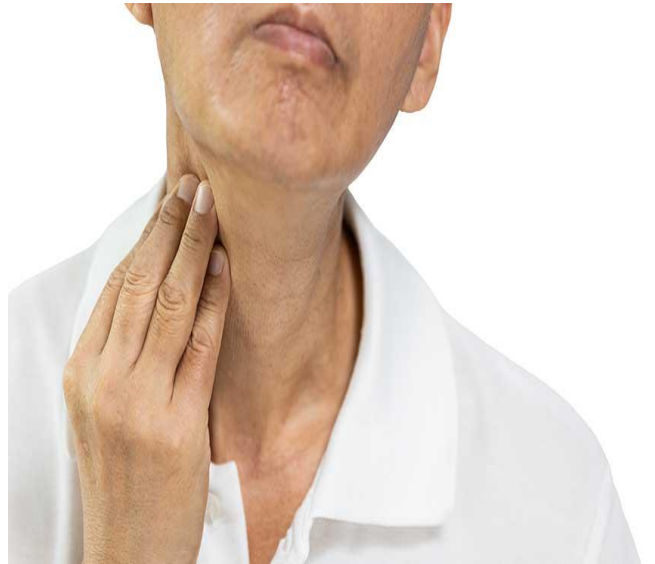
Hodgkin Lymphoma

Dr. Hawraa Razzaq Kadhim



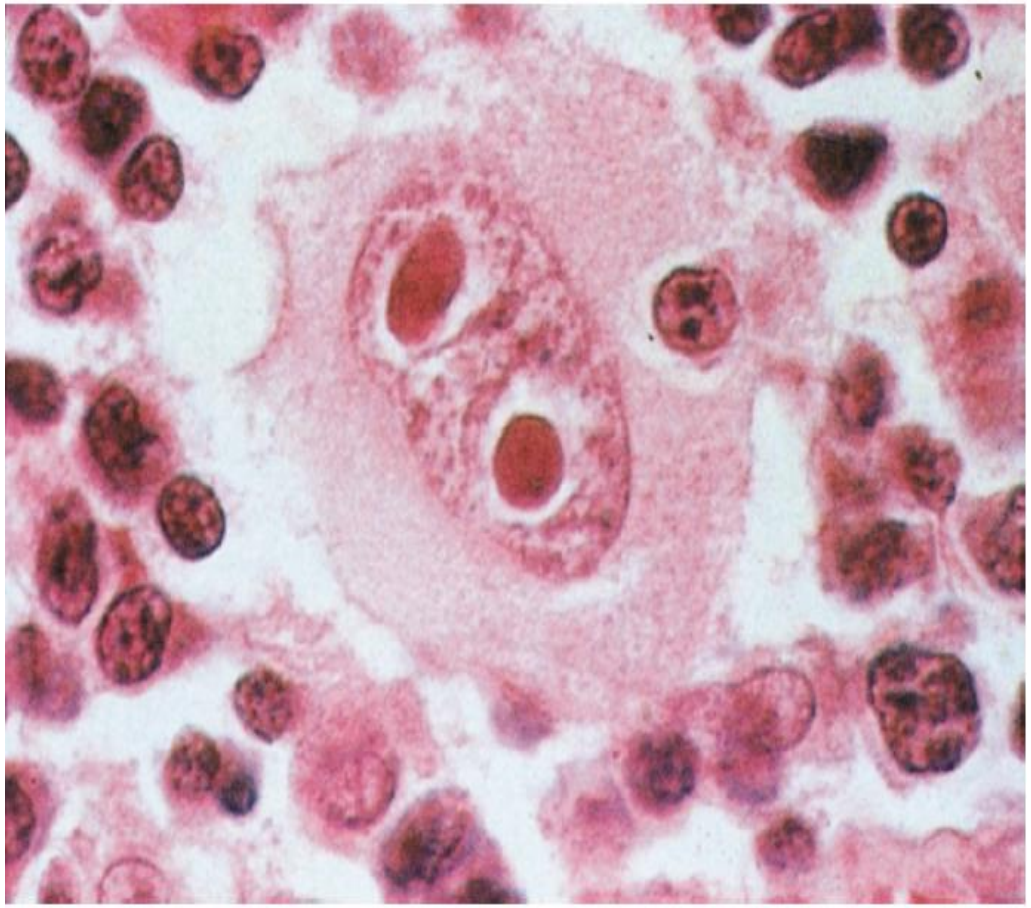
Hodgkin lymphoma: is a relatively rare malignancy that has a high cure rate.

- The cause of Hodgkin lymphoma is unknown.
- However, **several risk factors** have been identified, which include:
- Age, a history of viral infections (particularly the Epstein–Barr virus, human immune deficiency virus [HIV].
- Family history.
- Patients receiving long-term immunosuppressive therapy (e.g., organ transplant recipients).



Pathophysiology

Hodgkin lymphoma is unicentric in origin, meaning that it initiates in a single node. The disease spreads by **contiguous extension** along the lymphatic system. The malignant cell of Hodgkin lymphoma is the **Reed–Sternberg cell**. These cells arise from the B lymphocyte. The presence of Reed–Sternberg cells is the pathologic hallmark and essential diagnostic criterion.



Classification of Hodgkin lymphoma

***1-Nodular sclerosis*:** This is the most common form of Hodgkin lymphoma, accounting for about **70%** of all cases. It is seen most often in the young; among these patients, the lymph node contains elements of fibrous (sclerotic) tissue; approximately 40% of patients have B symptoms. This type of Hodgkin lymphoma is highly curable.

***2-Mixed cellularity*:** This is the second most common form of Hodgkin lymphoma, accounting for 20% to 25% of all cases. This subtype is more common in **older adults** and in males; it is frequently seen in patients with HIV infection, and B symptoms are frequently reported.

B Symptoms

These symptoms include the following:

- Fever of at least 100.4° F (38°C) that may come and go over several weeks that is not explained by an underlying infection.
- Drenching night sweats.
- Unintentional loss of at least 10% body weight over the past 6 months.

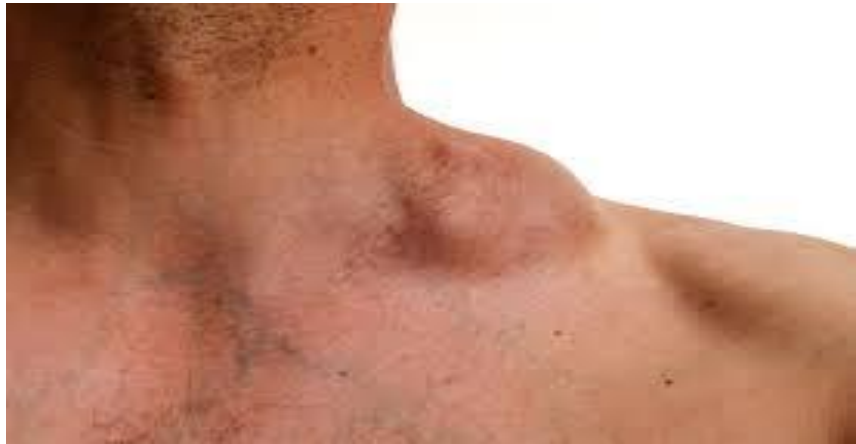
3-Lymphocyte-depleted: This form of Hodgkin lymphoma is **rare**; it is characterized by involved lymph node(s) with **few normal lymphocytes** but **numerous Reed–Sternberg cells**. B symptoms are commonly reported.

***4-Lymphocyte-rich*:** This type of Hodgkin lymphoma is also an uncommon form of the disease; the lymph node(s) has **numerous normal lymphocytes** and Reed–Sternberg cells and B symptoms are rare.

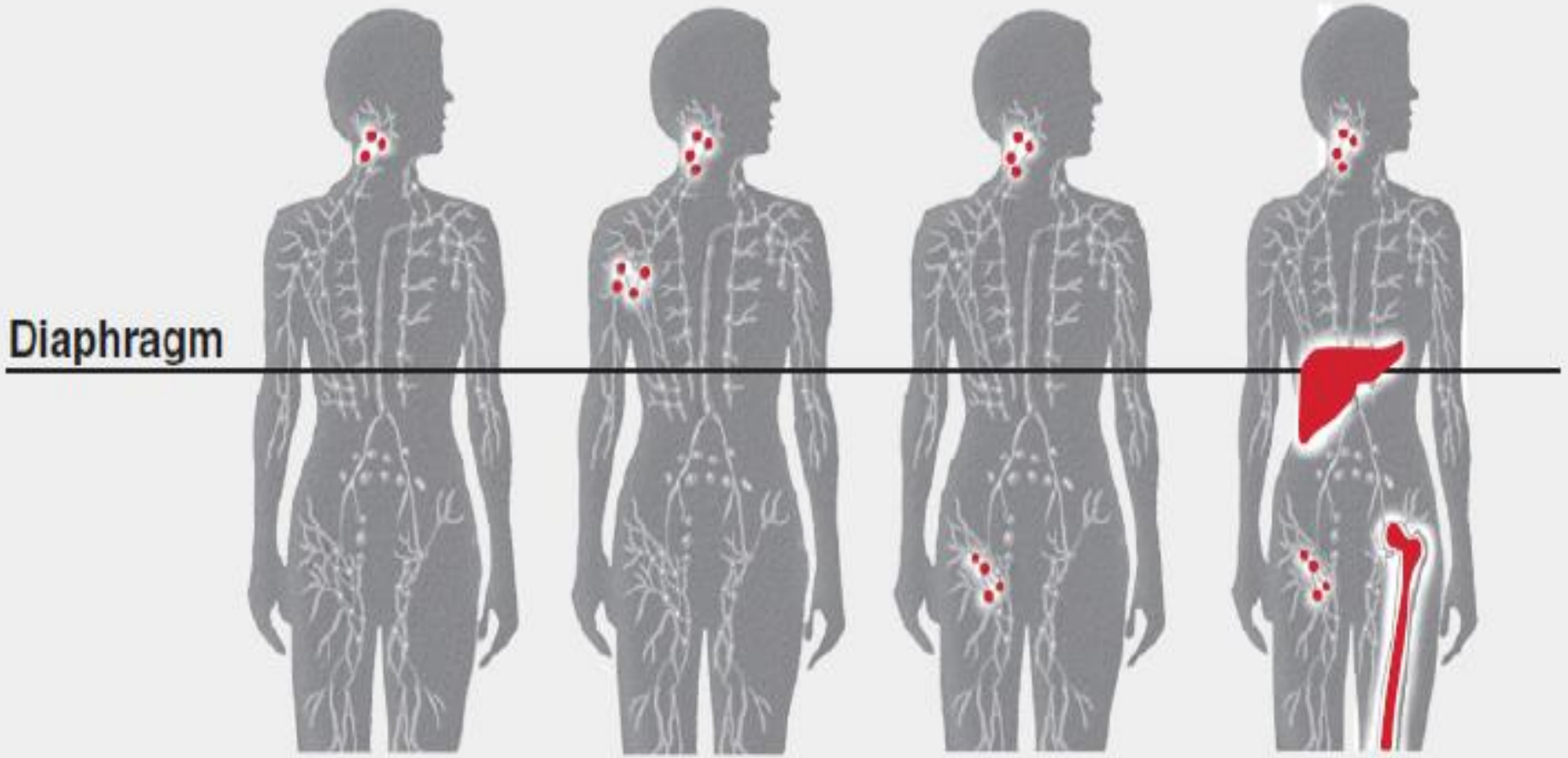
5-Nodular lymphocytes predominant Hodgkin lymphoma (NLPHL): This is the lone type of Hodgkin lymphoma that is not considered of the classical type. In NLPHL there are few Reed–Sternberg cells; rather, there is a predominance of lymphocyte cells called “popcorn” cells.

Clinical Manifestations

- Hodgkin lymphoma usually begins as an enlargement of one or more lymph nodes on one side of the neck. The individual nodes are painless and firm but not hard.
- Clinical manifestations result from compression of organs by the tumor, such as cough and pulmonary effusion (from pulmonary infiltrates), jaundice (from hepatic involvement or bile duct obstruction), abdominal pain (from splenomegaly), or bone pain (from skeletal involvement).



Stages of Hodgkin lymphoma



Stage I

Localized disease; single lymph node region or single organ

Stage II

Two or more lymph node regions on the same side of the diaphragm

Stage III

Two or more lymph node regions above and below the diaphragm

Stage IV

Widespread disease; multiple organs, with or without lymph node involvement

Categories for lymphoma

- Category **A** indicates no symptoms are present.
- Category **B** indicates the presence of B symptoms (fever, excessive sweating and weight loss).
- Category **X** indicates bulky disease (large masses of lymphocytes).
- Category **E** indicates areas or an organ involved other than the lymph nodes.

❑e.g., stage IIB indicates that the patient has two lymph node sites near each other with disease involvement, with B symptoms (Fever, excessive sweating and weight loss).

Assessment and Diagnostic Findings

- The diagnosis is made by means of an excisional lymph node biopsy and the presence of **Reed–Sternberg cells**.
- During the health history, the patient is assessed for any B symptoms.
- Physical examination requires a careful, systematic evaluation of all palpable lymph node chains.
- A chest x-ray and a computed tomography (CT) scan.
- Laboratory tests include CBC with differential; serum electrolytes, blood urea nitrogen (BUN) and creatinine; liver and renal function studies.
- Erythrocyte sedimentation rate **ESR**; measures the rate of settling of RBCs; elevation is indicative of inflammation; it is also called the sed rate.

Medical Management

Treatment is determined primarily by stage of disease, not histologic type

- Patients with early disease (stage I-II) may receive one of the following combination chemotherapy regimens: **ABVD**

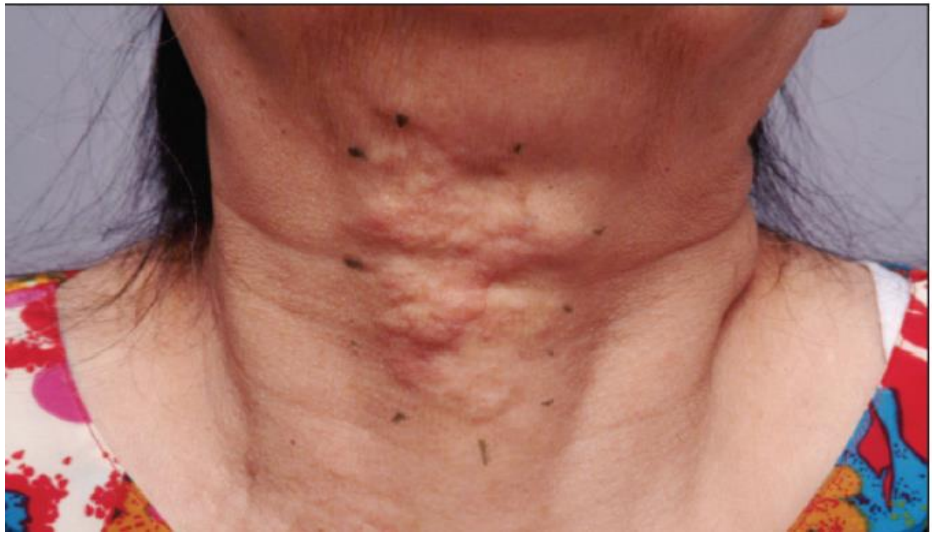
(**A**driamycin, **b**leomycin, **v**inblastine, and **d**acarbazine).

- Those with advanced stage disease are treated with these same regimens but with radiation therapy added.

Side effects for therapy

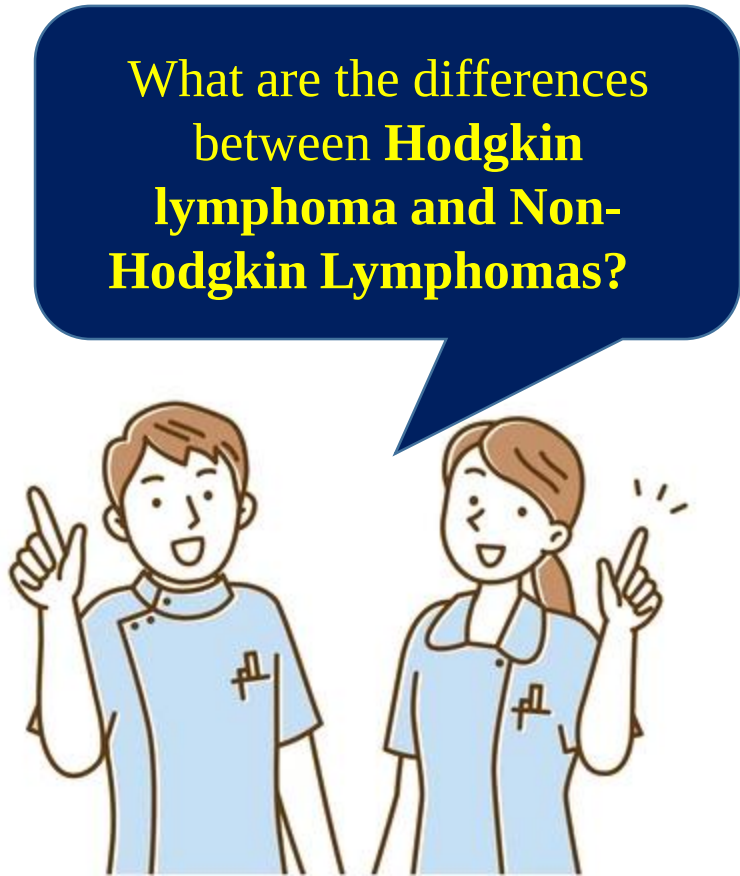
- Chemotherapy causes **systemic side effects** (e.g., myelosuppression, nausea, hair loss, risk of infection)
- Radiation therapy causes **specific side effects** that are limited to the area being irradiated. For example, patients receiving abdominal radiation therapy may experience diarrhea but not hair loss.
- Regardless of the type of treatment, all patients may experience fatigue

Non-Hodgkin Lymphomas

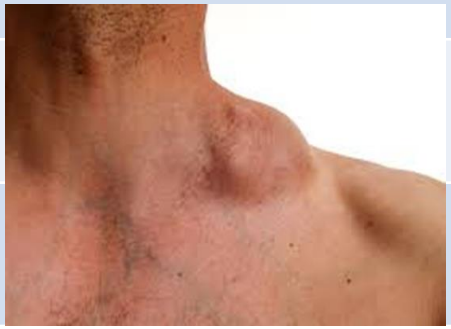


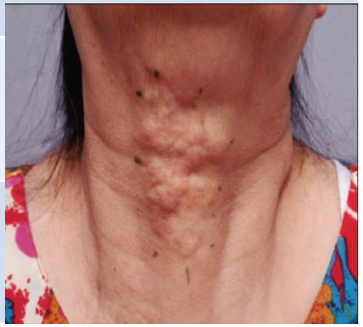
The NHLs are a heterogeneous group of cancers that originate from the neoplastic growth of lymphoid tissue.

The spread of these malignant lymphoid cells occurs **unpredictably**; true localized disease is uncommon. Lymph nodes from multiple sites may be infiltrated, as may **sites outside the lymphoid system** (i.e., extranodal tissue).



Hodgkin lymphoma	Non-Hodgkin Lymphomas (NHLs)
Presence of **Reed–Sternberg cells**	Absence of Reed–Sternberg cells
Usually arises from **B lymphocytes**	May arise from B cells, T cells.
Spreads in a **contiguous (orderly)** manner from one lymph node group to another	Spreads in a random pattern
Often in the **neck**	May involve **extranodal sites** (GI tract, skin, brain, etc)
Skin over the mass is normal	Skin over the mass is **red, hot dilated vein**
Mass is rubble	Mass is hard
Mobile mass	Non-mobile mass





Types of Non-Hodgkin Lymphomas

Indolent	Aggressive
Cutaneous T cell	Anaplastic large cell
Follicular	AIDS associated
Gastric MALT	Burkitt
Lymphoplasmacytic: Waldenstrom macroglobulinemia	Diffuse large B cell
Marginal zone B cell	Mantle cell
Small-cell lymphocytic	Peripheral T cell

Nursing Diagnosis

- Impaired skin integrity related to radiation therapy.
- Impaired nutritional status associated with nausea and vomiting.
- Grief associated with loss; altered role functioning.
- Risk for infection associated with inadequate defenses related to myelosuppression secondary to radiation or antineoplastic agents.

Nursing Management

- Apply topical treatment as prescribed.
- Maintain adequate oral hydration.
- Avoid long hot showers or baths, harsh soaps and laundry detergents, perfumes.
- Encourage verbalization of fears, concerns, and questions regarding disease, treatment, and future implications.
- Check vital signs every 4 hours.

Cont.

- Patients need to be informed that Hodgkin lymphoma is often curable. The nurse should encourage patients to reduce factors that increase the risk of developing second cancers, such as use of tobacco and alcohol and excessive sunlight.
- Patients need to be educated to minimize the risks of infection, to recognize signs of possible infection, and to contact their primary provider if such signs develop.
- Monitor white blood cell (WBC) count.
- Inspect all sites that may serve as entry ports for pathogens (IV sites, wounds, and oral cavity).

Cont.

- Importance of patient avoiding contact with people who have known or recent infection or recent vaccination.
- Instruct all personnel in careful hand hygiene before and after entering room.
- Adjust diet before and after drug administration according to patient preference and tolerance.
- Prevent unpleasant sights, odors, and sounds in the environment.
- Use distraction, music therapy, relaxation techniques, and guided imagery before, during, and after chemotherapy.
- Administer prescribed antiemetics, sedatives, and corticosteroids before chemotherapy and afterward as needed.


Thank
you