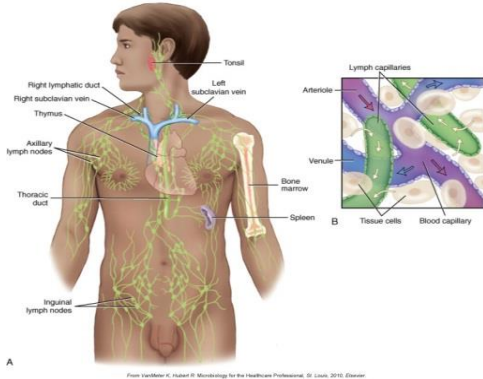


BIOS 2015 ... CHAPTER 11- Lymphatic System Disorders

Page Note



The lymphatic system starts in the interstitium with lymphatic capillaries that collect fluid from the interstitium.

These drain into progressively larger lymphatics vessels that eventually dump the lymph fluid into the blood stream via the subclavian veins.

The duct on the left is dominant and is called the **"thoracic duct"**

- In addition to draining the interstitium, the lymphatics drain the intestines collecting lipids absorbed from digested food. If you take a blood sample after a fatty meal, the lipid absorbed and dumped by the lymphatics into the blood will be visualized in the blood.



In addition to draining the interstitium, the lymphatics drain the intestines collecting lipids absorbed from digested food. If you take a blood sample after a fatty meal, the lipid absorbed and dumped by the lymphatics into the blood will be visualized in the blood. The tube on the left is before a fatty meal (serum is clear). The tube on the right is several hours after a fatty meal (serum is cloudy due to lipids (chylomicrons) absorbed from the intestines).

Lymphoma:

Lymphoma is a malignancy of lymphocytes.

In classifying lymphoma we start by separating Hodgkin's Lymphoma from Non-Hodgkins Lymphoma (NHL). The classification scheme for NHL is complicated and diagnosis requires many specialized tests. It is important to precisely diagnose lymphoma because the different types have different treatments.

Hodkin's Lymphoma is characterized by a diagnostic finding on microscopic exam. This finding is the Reed Sernberg cell.

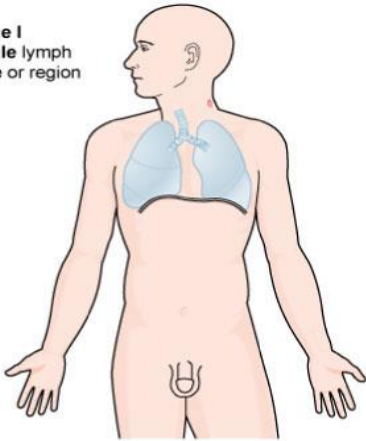


Hodgkin's lymphoma often presents as a painless enlarged lymph node and generalized signs of cancer like weight loss, anemia, low grade fever, night sweats, and fatigue.

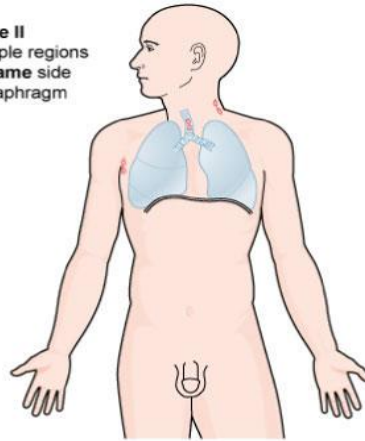
Staging looks to see if it is local, multifocal and on one side of diaphragm, on both sides of the diaphragm or widespread.

Treatment involves radiation, chemotherapy and surgery.

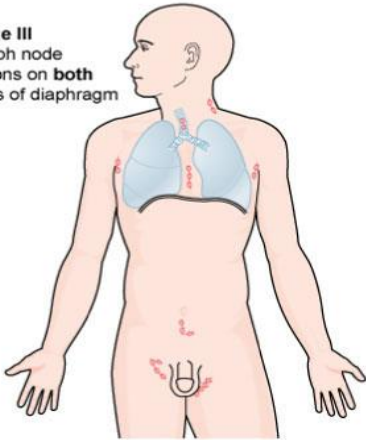
Stage I
Single lymph
node or region



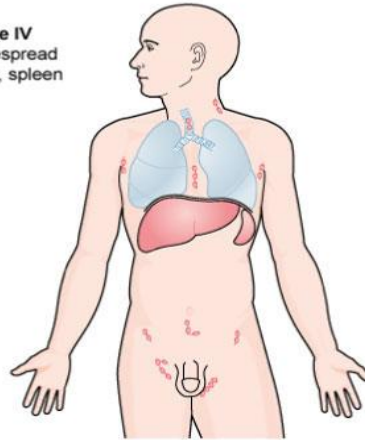
Stage II
Multiple regions
on **same** side
of diaphragm



Stage III
Lymph node
regions on **both**
sides of diaphragm



Stage IV
Widespread
Liver, spleen



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LYMPHEDEMA:

- Caused by lymph fluid build up in tissue due to failure of lymphatics to drain the fluid.
- Often the cause is a genetic disorder.
- treated with diuretics (drugs that promote fluid loss via urination), bed rest, massage, and elevation of the affected extremity.

Elephantiasis:

- a disease of massive edema of legs, breasts, and/or genitalia caused by a parasitic infection that blocks the lymphatics. In Africa and Asia, filarial worms are spread by mosquitoes and cause the disease (see the life cycle below, just for interest).

Filariasis

(*Wuchereria bancrofti*)

