Non-Hodgkin's malignant lymphomas

Non-Hodgkin's malignant lymphomas are tumors of the lymphatic tissue. The cause is not fully known, but is probably related to retroviruses such as HBV and HIV. The main symptoms are:

- long-lasting enlargement of the nodes in the neck, armpits and inguinal area, which are stiff and **painless** to the touch,
- itchy skin,
- **dull pain** in the enlarged nodes, which appears a few minutes after drinking alcohol,
- later blood abnormalities.

Classification:

- from a precursor cell / from a mature cell,
- B-lymphoma / T-lymphoma / NK-lymphoma,
- nodal / extranodal.

Prognosis:

- from architecture − nodal / diffuse (worse),
- from size − from large cells (worse) / from small cells.

Division

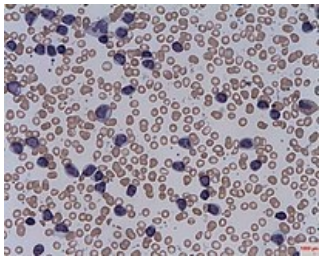
We divide them according to the type of tumor cell into **T-lymphomas**, **B-lymphomas** and **NK-lymphomas**. CD-labeled antibodies with the appropriate number are used to distinguish the cell line. Mature B-cell tumors account for 85% of all non-Hodgkin's lymphomas worldwide.

Tumors from mature NK- and T-cells are relatively uncommon. They differ from Hodgkin's lymphomas- unlike them, they lack their features (a large number of *background cells* called inflammatory cells, the tumor cells are large and have a large nucleus and an eosinophilic nucleolus - Hodgkin cells, Reed-Stenberg cells).

B-non-Hodgkin´s lymphoma

Chronic lymphocytic leukemia (CLL)

The disease occurs more often in elderly patients (over 50). It usually takes place slowly over several years. Patients may be asymptomatic or may experience fatigue, lymph node enlargement, hepatosplenomegaly (small lymphocytes with low mitotic activity infiltrate the spleen and portobiliary spaces of the liver), autoimmune hemolytic anemia and peripheral blood leukocytosis. It can progress to diffuse large B-cell lymphoma.



Chronic lymphocytic leukemia (CLL)

Follicular lymphoma

It is a tumor that originates from the cells of the germinal centers of lymphatic follicles (it consists of tumor centrocytes and centroblasts). It occurs in adulthood and older age. Patients are often asymptomatic and arrive at an advanced stage. The average survival time is 6-8 years. According to the number of centroblasts, tumors are divided into three stages:

- I − follicularly arranged tumor cells have a medium size and appearance of centrocytes, but also contain small amounts of centroblasts
- II − is similar to I, but contains more centroblasts,
- III − mainly large centroblasts predominate. Chromosome 14 and 18 translocations and overexpression of the bcl-2 oncogene, which prevents apoptosis, are typical. It can progress to diffuse large B-cell lymphoma.

MALT Lymphoma (Mucosa Associated Lymphatic Tissue)

These include lymphomas that arise in the extranodal lymphatic tissue. They most commonly occur in the stomach, where lymphatic tissue is not normally present, but is formed in chronic gastritis caused by Helicobacter pylori. Sometimes it is enough to kill Helicobacter to cure it. It is a low-grade lymphoma that grows locally and does not spread to the environment.

Mantle cell lymphoma

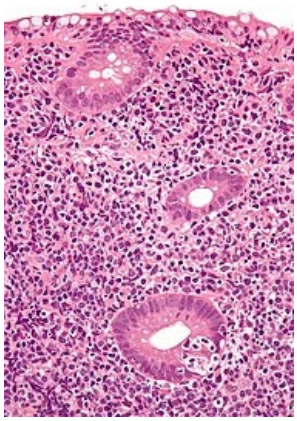
It occurs mainly in older adult men. Lymphatic follicle mantle cell proliferation occurs. It has a bad prognosis. The average survival time is 3-5 years. Chromosome 11 and 14 translocations and cyclin D1 overproduction are typical.

Diffuse large B-cell lymphoma (DLBCL)

It is one of the most common lymphomas. It occurs in the elderly, but can also occur in children. It can arise de novo, but also from low-grade B-lymphomas. It grows aggressively, but potentially responds well to treatment. In about 40% of cases, it also occurs outside the nodes.

Burkitt´s lymphoma

Highly aggressive childhood tumor, which often occurs extranodal and consists of a population of small B-lymphocytes, macrophages and apoptotic bodies. The histological image resembles a *starry sky*. An **endemic variant** occurs in Africa and New Guinea, where it affects the jaw and bones of the face. EBV and malaria play a certain role here. The **sporadic variant** mainly affects the GIT, ovaries, breasts and kidneys and is more common in adults. A **variant** associated with **immunodeficiency** (often in AIDS patients, patients have infiltrated bone marrow and nodules).



MALTOM in GIT

T-non-Hodgkin´s lymphoma

T-cell extranodal lymphoma

Necrotizing lymphoma, especially in adults. It occurs in the nasal cavity and in the surrounding tissues. It is often associated with EBV.

Peripheral T-cell lymphoma

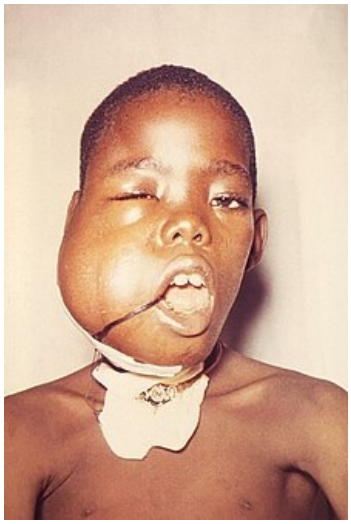
It mainly affects the nodules. He has a poor response to treatment and a poor prognosis. About half of T-cell lymphomas belong to this group.

Mycosis fungoides

Chronic lymphoma that lasts for several years. Red patches form on the skin. Later, it spreads to the internal organs (spleen, lungs and liver).

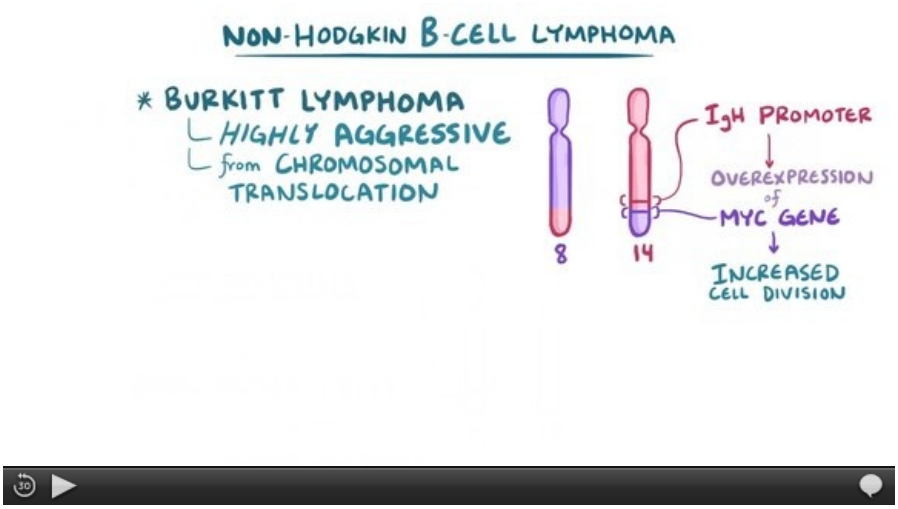
Sezary syndrome

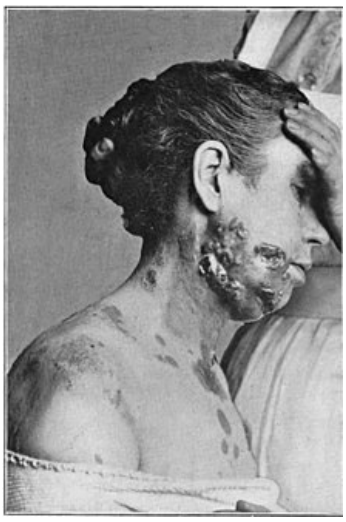
It is a more aggressive disease like mycosis fungoides. In addition to the skin, tumor infiltrates are also found in the lymph nodes and blood. It has a bad prognosis.



Burkitt's lymphoma

Summary video





Mycosis Fungoides

Links

Related articles

- Maligní lymfom
- Hodgkinův lymfom
- Burkittov lymfom
- Mycosis fungoides
- Difuzní velkobuněčný B-lymfom

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