

Differential diagnostics of symptoms and syndroms in hemato-oncological diseases

blood cancers are among the most devastating diseases known to medicine. Combined, the mortality of leukemia, Hodgkin's and non-Hodgkin's lymphomas, and multiple myeloma ranks third after lung cancer and colo-rectal cancer. In the European Union member states alone, more than 95,000 people die each year of hematologic cancers. Given the nature and epidemiology of the diseases, they are most prevalent among some of the most vulnerable European citizens: children and the ageing.

General symptoms

- ❑ **increase of body temperature, febrility**
- ❑ **sweating (profuse)**
- ❑ **loss of body weight**
- ❑ **fatigue**

General symptoms

- ❑ **infectious diseases**
- ❑ **systemic diseases (autoimmune)**
- ❑ **malignant diseases**

hematological malignancies

malignant lymphomas, m. Hodgkin
myeloid metaplasia (sy. of myelofibrosis)
leukemias, multiple myeloma

other malignancies

Grawitz's tumor

- ❑ **endocrinopathies** thyreotoxicosis

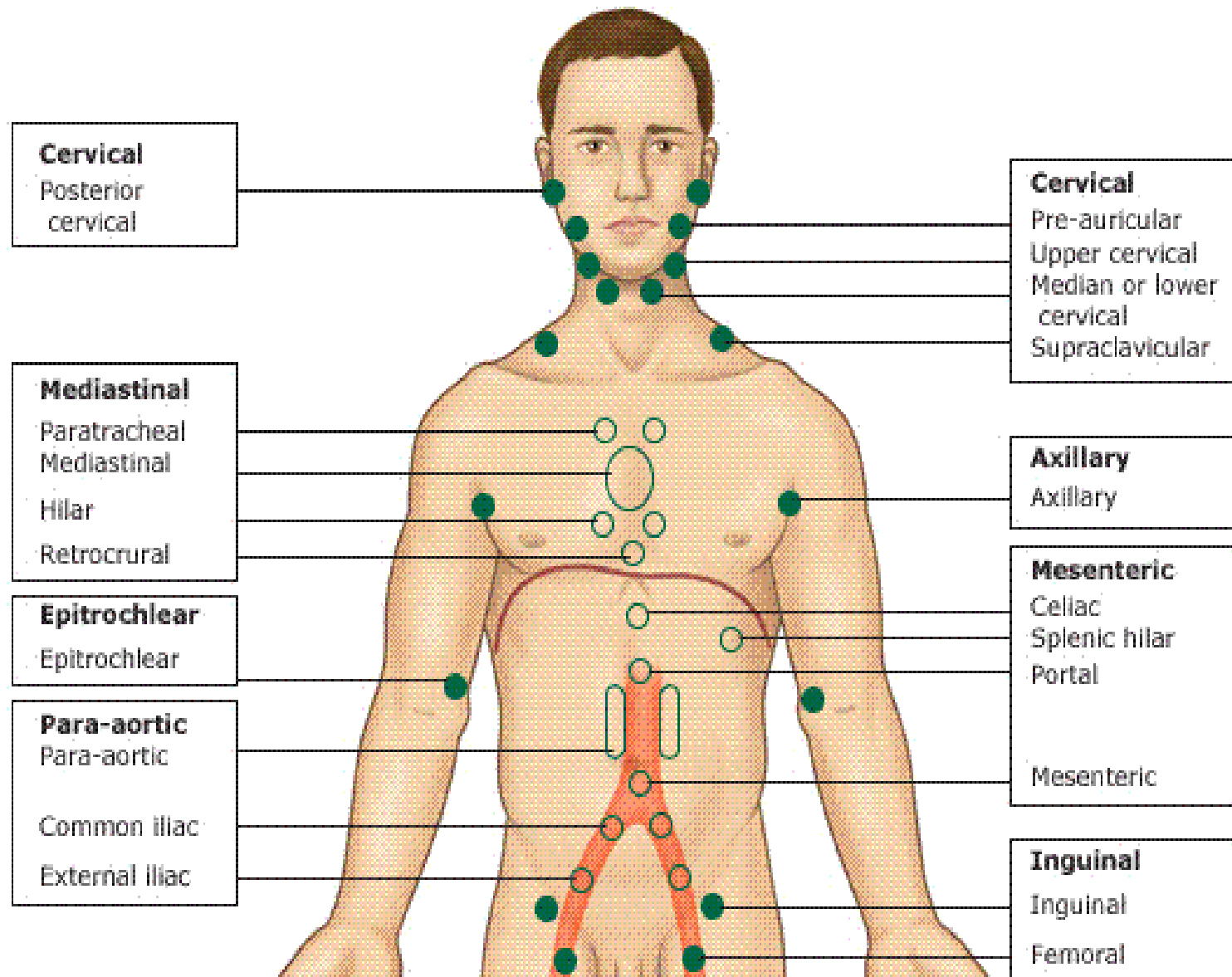
Evaluation of patient's general state - patient's performance status

	WHO scale	Karnofsky index
Full activity without restrictions	0	100
Restricted but ambulatory, able of light work	I	90-80
Ambulatory unable of any work, up more than 50% of waking hours	II	70-60
Only limited self-care, Confined to bed more 50% w.h.	III	50-40
Completely disabled, totally confined to bed	IV	30-20
Dying		10
Dead	V	0

- **The presence of general symptoms**
- **The performance status affection**

are independent prognostic factors

Lymfatické uzliny: periferní a viscerální



Krční adenomegalie



Lymphadenopathies

- **infectious lymphadenitis**

 - acute regional lymphadenitis
 - nonspecific chron. lymphadenitis

 - systemic lymphadenitis
 - lymphotropic virus infections**
 - bacterial systemic lymphadenitis

 - specific lymphadenitis

- **systemic diseases**
 - SLE, rheumatoid arthritis

Lymphadenopathies, inflammatory – cont.

- ❑ allergic lymphadenitis
- ❑ sarcoidosis

Lymphadenopathies – cont.

❑ malignant diseases

hematological malignancies

malignant lymphomas, m. Hodgkin

lymphatic leukemias, chronic, acute

(myeloid leukemias, multiple myeloma)

metastatic lymphadenopathies

carcinomas, sarcomas

❑ histiocytosis

- hemophagic histiocytosis

Lymphatic system - examination

- ❑ **Physical examination**
- ❑ **The imaging methods**
 - Chest x-ray
 - Ultrasonography
 - CT of chest, abdomen and pelvis**
 - Positron emission tomography
 - Nuclear magnetic resonance
- ❑ **The endoscopic methods**
 - Gastrofibroscopy
 - Colonoscopy
 - Bronchoscopy
- ❑ **The biopsies**
 - Lymphnodes,**
 - Trephine biopsy of bone marrow**
 - Other organs or formations

Lymphatic system - examination

□ The laboratory methods

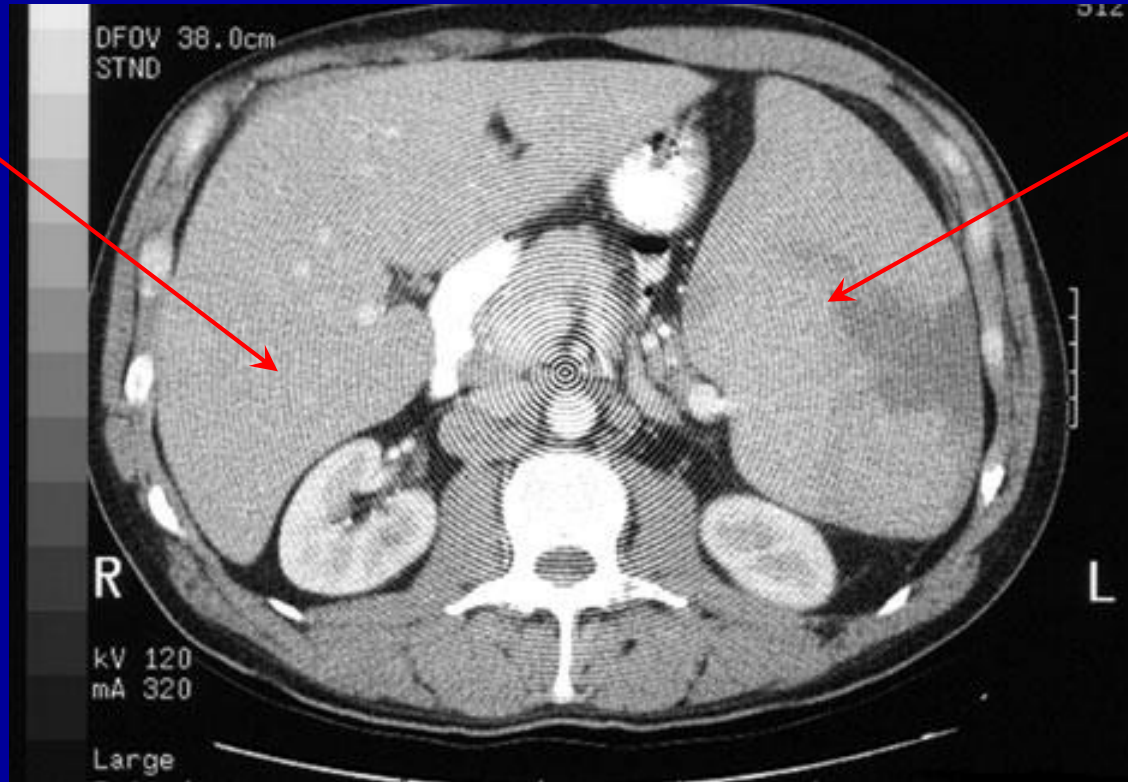
Blood picture with differential count, examination of bone marrow aspirate

Standard biochemical examination (**LDH, beta2 microglobulin**)

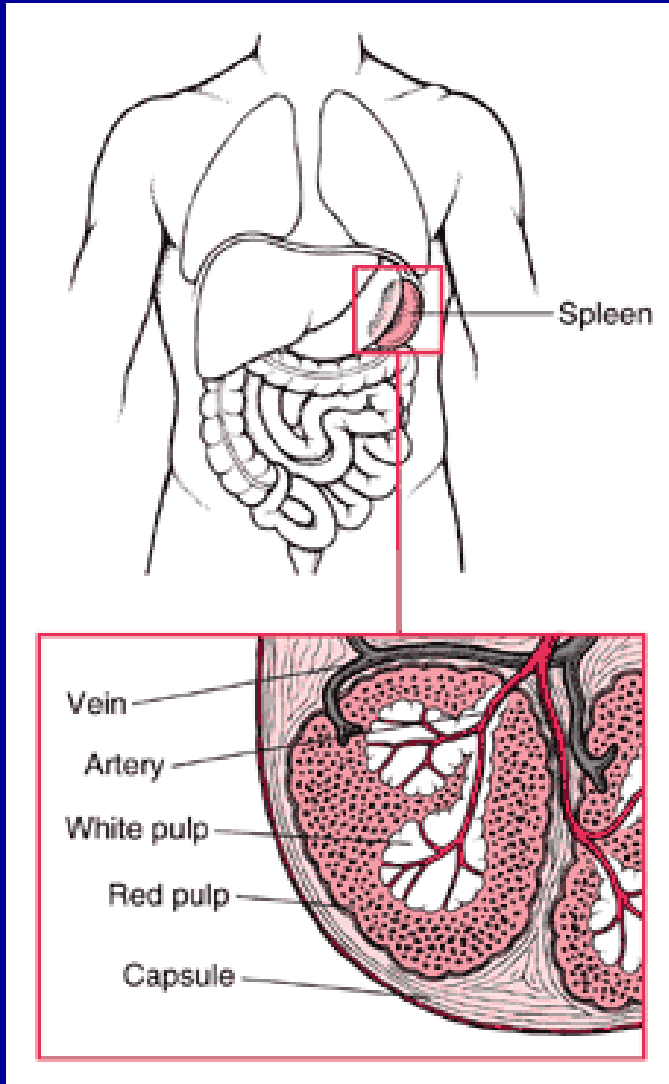
Hepato- splenomegalie

hepar

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SPLENOMEGALIE



Splenomegaly

- ❑ congestive

 - portal hypertension

 - liver cirrhosis

 - thrombosis venae portae

 - right heart failure

- ❑ **inflammatory**

 - infectious diseases

 - systemic diseases

 - SLE, rheumatoid arthritis

 - (Still's disease, Felty's sy.)

Splenomegaly – cont.

- **hematologic malignancies**

- leukemias, myeloid, chronic (acute)
 - lymphatic, chronic (acute)
 - myeloid metaplasia (sy.of myelofibrosis)
 - malignant lymphomas

- histiocytosis
 - hemophagic histiocytosis

- **hemolytic states**

- congenital, aquired

Hepatomegaly

- venostatic

- hepatitis
 - infectious, toxic,
 - acute, chronic
 - liver cirrhosis

- systemic diseases
 - SLE, rheumatoid arthritis

- hemolytic states
 - congenital, aquired

- metabolic disorders
 - congenital: tesaurismosis, glycogenosis,
 - acquired: porphyrias, hyperlipoproteinemias, diabetes mell.,
 - amyloidosis

Hepatomegaly – cont.

❑ malignant diseases

hematological malignancies

leukemias, chronic, acute, myeloid, lymphatic
myeloid metaplasia (sy. of myelofibrosis)
malignant lymphomas

primary liver and biliary tumors

hepatoma, cholangiogenic carcinoma

carcinoma liver metastasis

❑ histiocytosis

- hemophagic histiocytosis

Syndrom of periferal blood cytopenia

□ pathogenetic mechanisms

● due to decreased production

bone marrow hypo-aplasias

myelodysplasias

● due to accelerated destruction

anemias

due to blood losses

autoimmune hemolysis

thrombocytopenia

autoimmune

● redistribution (pooling)

splenomegaly

Syndrom of periferal blood cytopenia

- laboratory and clinical features
 - anemia
 - anemic syndrom
 - leucopenia, neutropenia
 - recurent and resistant infections
 - microbial, mycotic
 - thrombocytopenia
 - bleeding state of primary hemostasis disorder feature