SYLLABUS

I. Department of Clinical Pathomorphology Collegium Medicum Nicolaus Copernicus University, Skłodowskiej-Curie 9, 85-094 Bydgoszcz

II. Head of the unit: dr hab. n. med. Dariusz Grzanka

III. Faculty of Medicine, Medical Program, 3rd year

IV. Course coordinator: Łukasz Szylberg, *MD, PhD*

V. Form of classes: lectures, tutorials

VI. Form of crediting: Exam, 13 ECTS points

VII. Number of hours: Lectures – 64 hours, Tutorials – 96 hours

VIII. Aim of the course

After completing the pathology course student has to know causes, pathomechanisms, clinical course and consequences of the disease and understand morphological and functional changes in specific diseases processes.

IX. Topics of tutorials (THE SCHEDULE FROM PATHOMORPHOLOGY INCLUDING A LIST OF SLIDES)

X. Topics of lectures

IX. THE SCHEDULE FROM PATHOMORPHOLOGY INCLUDING A LIST OF SLIDES FOR YEAR 2018/2019, FIRST PART OF COURSE (2 WEEKS)

I WEEK

1. **Introduce to pathology + autopsy (INT)**
Natalia Skoczylas-Makowska, MD

Topics:

- ⇨ Introduce to pathology. Didactic regulations.
- ⇨ Legal issue related to autopsy.
- ⇨ Audiovisual presentation of autopsy techniques.
- ⇨ Autopsy techniques for haed, neck, chest, abdominal and pelvis examination.
- ⇨ Autopsy demonstration with discussion of autopsy techiques.
- ⇨ Autopsy in special cases – e.g. emphysema, embolisms, poisoning etc.
- ⇨ Signs of death.

2. **Adaptive changes and Hemodynamic disorders.** *Jakub Jóźwicki. MD* **(A+H)**

Topics to prepare:

- ⇨ Cell response to stress and damaging factors,
- ⇨ causes of cell damage,
- ⇨ sequences and mechanisms of cell damage and death,
- ⇨ adaptive changes,
- ⇨ degenerative changes,
- ⇨ pathological calcification,
- ⇨ cell aging,
- ⇨ blood congestion and stasis,
- ⇨ edema,
- ⇨ haemorrhage,
- ⇨ haemostasis and thrombosis,
- ⇨ embolism,
- ⇨ infarction shock

Slides:

1.	Brown atrophy of the heart *atrophia fusca myocardii*	**146**
2.	Cardiac muscle hypertrophy *(hypertrophia musculi cordis)*	**138,150**
3.	Endometrial hyperplasia *(hyperplasia glandularis endometrii)*	**085, 085a, 085c, 085d**
4.	Vacuolar degeneration (hydropic change) of hepatocytes (*degeneratio parenchymatosa hepatis)*	**134**
5.	Epidermal hyperkaratosis (*hyperkeratosis epidermis)*	**135**
6.	C*orpus albicans ovarii*	**143**
7.	Liquefactive necrosis (brain encephalomalacia) (*necrosis colliquativa;* na przykładzie rozmiękania mózgu *[encephalomalatio cerebri])*	**152**
8.	Coagulative necrosis (liver and lung tuberculosis) *(necrosis coagulativa;* na przykładzie: gruźlicy płuc i wątroby *[tuberculosis pulmonum et hepatis])*	**026**

1.	Hemorrhagic cerebral infarction *(focus haemorrhagicum cerebri)*	**127, 133**
2.	Hemosiderosis whitish ovarian body (*haemosisderosis corporis albicantis ovarii)*	**154 + żelazo**
3.	Passive congestion of liver *(hyperaemia passiva hepatis)*	**155**
4.	Chronic venous stasis in the lungs *(venostasis chronica pulmonum)*	**153, 157**
5.	Pale infarction of kidney (*infarctus pallidus renis)*	**059**
6.	Hemorrhagic intestinal infartion (*infarctus haemorrhagicus intestini)*	**160**
7.	Adhering thrombus (*thrombosis parietalis)*	**097, 193**
8.	Recanalization of thrombus *(thrombosis recanalisatus)*	**233**
9.	Pulmonary edema	**062/256**

3. **Diseases of immunity**. *Natalia Skoczylas-Makowska, MD* **(IM)**

Topics to prepare:

- ⇨ Systemic lupus erythematosus
- ⇨ Scleroderma (systemic sclerosis)
- ⇨ Rheumatoid arthritis
- ⇨ Inflammatory myopathies
- ⇨ Sjogren syndrome
- ⇨ Vasculitides
- ⇨ Amyloidosis

Slides:

1.	Renal amyloidosis (amyloidosis renis)	**077 + amyloid**
2.	Rheumatoid nodule (nodulus rheumathoideus)	**174**
3.	Rheumatoid arthritis (ang. rheumatoid artritis)	**082**
4.	Polyarteritis nodosa	**124**
5.	Sclerodermia (scleroderma localisata)	**173, 196 Włókna sprężyste**
6.	Lupus erythematosus – renal changes (lupus erythematosus)	**033, PAS**

3. **Chronic and acute inflammation**. *Izabela Neska-Długosz, MD* ***(INF)***

Topics to prepare:

- ⇨ Definitions and General Features
- ⇨ Causes of Inflammation
- ⇨ Recognition of Microbes and Damaged Cells
- ⇨ Reactions of Blood Vessels in Acute Inflammation
- ⇨ Leukocyte Recruitment to Sites of Inflammation
- ⇨ Phagocytosis and Clerance of the Offending Agent
- ⇨ Termination of the Acute Inflammatory Response
- ⇨ Outcomes of Acute Inflammation
- ⇨ Causes of Chronic Inflammation
- ⇨ Cells and Mediators of Chronic Inflammation
- ⇨ Granulomatous Inflammation
- ⇨ Types of granulomas
- ⇨ Pathogenesis, morphology and clinical changes in syphilis and tuberculosis

Slides:

1.	Lymphnode sinus histiocytosis (histiocytosis lymphonoduli)	***188***
2.	Nonspecyfic lymphadenitis Lymphonodulitis reactiva	***226***
3.	Fibrinoid necrosis on the example of chronic peptic ulcer (degeneratio fibrinoidea; na przykładzie przewlekłego wrzodu trawiennego żołądka [ulcus chronicum pepticum ventriculi])	***144***
4.	Lung abscess (abscessus pulmonis)	***034***
5.	Serum acute appendicitis, appendicitis with lymphoid follicles hyperplasia, suppurative appendicitis, gangrenous appendicitis (appendicitis; [acuta serosa] [follicularis], [purulenta], [phlegmonosa], [gangrenosa],[obliterativa])	***262, 027, 266, 268***
6.	meningitis purulenta	***167***
7.	Miliary tuberculosis of lung (tuberculosis miliaris pulmonis)	***025***
8.	Adrenal tuberculosis (tuberculosis glandulae suprarenalis)	***151***
9.	Tuberculous meningitis (meningitis tuberculosa)	***102***
10.	Lymph node sarcoidosis (sarcoidosis lymphonoduli)	***111***
11.	Leprosy (lepra)	***229***
12.	Inflammatory granulation tissue, foreign body reaction (granulatio, granuloma)	
13.	Scarring after myocardial infarction Cicatrisatio post infarctum myocardii)	***069***

5. **Neoplasms**. *Jakub Jóźwicki MD,* **(NEO)**

Topics to prepare:

- ⇨ nomenclature,
- ⇨ characteristics of benign and malignant neoplasms,
- ⇨ epidemiology,
- ⇨ cancer genes,
- ⇨ genetic lesions in cancer,
- ⇨ carcinogenesis,
- ⇨ hallmarks of cancer,
- ⇨ etiology of cancer (carcinogenic agents),
- ⇨ clinical aspects of neoplasia

Slides:

1.	Epidermal actinic keratoses *(keratosis senilis)*	**177**
2.	L*ichen sclerosus;* (*kraurosis)*	**168**
3.	Benign mammary dysplasia *(mastopathia fibroso-cystica; dysplasia benigna mammae)*	**050, 179**
4.	Seborrheic skin whart *(verruca seborrhoica)*	**243**
5.	Eversion in the cylindrical epithelium of the vaginal cervix, glandular erosion of the vaginal cervix *(ectropion)*	**237**
6.	Neoplasia intraepithelialis cervicalis CINI/ LSIL *(neoplasia intraepithelialis cervicalis; ang. CIN – cervical intraepithelial neoplasia)* **CIN I/ LSIL**	**178**
7.	Neoplasia intraepithelialis cervicalis CIN III/HSIL	**176**
8.	Bowen disease *(morbus Boweni)*	**166**
9.	Basal cell carcinoma of the skin *(carcinoma basocellulare cutis)*	**110**
10.	Squamous cell carcionoma of the skin *(carcinoma planoepitheliale/ carcinoma sinocellulare cutis)*	**022**
11.	Urothelial carcinoma of the bladder (*carcinoma urotheliale)*	**186**
12.	Colorectal adenocarcinoma *(adenocarcinoma coli)*	**279**
13.	Lipoma (*lipoma)*	**195**
14.	Liposarcoma (*liposarcoma)*	**049**
15.	Astrocytoma *(astrocytoma)*	**053, 244**
16.	Glioblastoma multiforme (*glioblastoma multiforme)*	**204, 260**
17.	Sarcoma synoviale – lung metastasis *(sarcoma synoviale)*	**214**

II WEEK

6. **Pathology of heart and vascular diseases** *Natalia Skoczylas-Makowska, MD* **(HV)**

Topics to prepare:

- ⇨ Atherosclerosis
- ⇨ Aneurysms and varicoses
- ⇨ Ischemic heart disease
- ⇨ Myocardial infarction
- ⇨ Right sided heart failure and left sided
- ⇨ Endocarditis, rheumatic fever
- ⇨ Hypertensive heart ant vacular disease
- ⇨ Neoplastic vascular changes - hemangiomas and neoplastic-like vascular changes
- ⇨ Myocarditis, pericardial disease
- ⇨ Myxoma

Slides

1.	Arteriosclerosis (*arterioclerosis centralis)*	**128, 131, 132**
2.	Arteriosclerosis of renal arteries *(renes arteriosclerotici)*	**212 +PAS**
3.	Myocardial infarction *(infractus myocardii)*	**255**
4.	Myocardial scarring *(cicatrisatio postinfractosa myocardii)*	**069**
5.	Heart valve endocarditis (*endocarditis valvularis)*	**216**
6.	Fibrinous pericarditis (*pericarditis fibrinoidea)*	**096**
7.	Acute myocarditis (*myocarditis acuta)*	**163, 250**
8.	Hemorrhoids (*varices haemorrhoidales ani)*	**251**
9.	Hemangioma (*haemangioma)*	**099**

7. **Childhood and infancy diseases.** *Łukasz Szylberg, MD* **(CH)**

Topics to prepare:

- ⇨ Respiratory distress syndrome of the newborn.
- ⇨ Necrotizing enterocolitis.
- ⇨ Neuroblastoma.
- ⇨ Retinoblastoma.
- ⇨ Wilms Tumor.
- ⇨ Rhadbomyosarcoma.
- ⇨ Fetal hydrops.
- ⇨ Sudden infant death syndrome.
- ⇨ Perinatal infections.

Slides:

1.	Testicular hypoplasia (*hypoplasia testis)*	**145**
2.	Neonatal respriratory distress syndrome (*membranae hyalinae pulmonum)*	**159**
3.	Trichinosis (t*richinellosis*)	**164**
4.	Echonococcosis (*echinococcosis cystica pulmonum*)	**106**
5.	Cerebral toxoplasmosis *toxoplasmosis cerebri*)	**139, PAS**
6.	Craniopharyngioma (*craniopharyngeoma*)	**208**
7.	Retinoblastoma (*retinoblastoma*)	**202**

8. **Pathology of the respiratory tract part I.** *Izabela Neska-Długosz, MD* **(RI)**

Topics to prepare:

- ⇨ Pneumonia – morphology and clinical features
- ⇨ Pulmonary vascular diseases
- ⇨ Obturative and restrictive diseases of lung
- ⇨ Chronic obturative disorders of lung.
- ⇨ Pathology changes in pleura
- ⇨ Bronchiectases
- ⇨ Pneumoconioses
- ⇨ Cor pulmonale

Slides:

1.	Pulmonary artery embolism *(embolia thrombotica ramorum arteriae pulmonalis)*	**156**
2.	Hemorrhagic lung infarction (*infarctus haemorrhagicus pulmonis)*	**060**
3.	Lobar pneumonia (*pneumonia lobaris)*	**198**
4.	Bronchopneumonia (*bronchopneumonia)*	**067, 058**
5.	Chronic bronchitis *(bronchitis chronica)*	**076**
6.	Fungal pulmonary infection (*pneumonia mycotica)*	**115**
7.	Mixed salivary gland tumor *(tumor mixtus; edenoma pleomorphum)*	**031**
8.	Pnemoconioses *(pneumoconioses)*	**272**

9. **Pathology of the respiratory tract part II.** *Izabela Neska-Długosz, MD* **(RII)**

Topics to prepare:

- ⇨ Lung cancer
- ⇨ Cancer of larynx
- ⇨ Nosopharyngeal cancer
- ⇨ Precancerous lesions and neoplasms of respiratory tract (including larynx, trachea, bronchus)

Slides:

1.	Squamous cell lung cancer *(carcinoma planoepitheliale pulmonis)*	**245**
2.	Lung adenocarcinoma *(adenocarcinoma pulmonis)*	**046**
3.	Lung small cell carcionoma (*carcinoma microcellulare pulmonis)*	**040**
4.	Laryngeal squamous cell carcinoma (*carcinoma planoepitheliale laryngis)*	**210**
5.	Bronchial carcinoid and carcinoid of the appendix. *(carcinoidum bronchit et appendicis)* (barw.chromograniną A)	**090, 249**

10. . **Hematopathology**. *Natalia Skoczylas-Makowska, MD* **(H)**

Topics to prepare:

- ⇨ Reactive lymphadenitis, reactive leukocytosis
- ⇨ Definition of lymphoma and leukemia
- ⇨ Clinical manifestations of proliferative diseases of the lymphatic system
- ⇨ Hodgkin lymphoma – definition, types, morphology, clinical manifestation
- ⇨ Non-neoplastic diseases of lymphatic system
- ⇨ Hematological malignances – general features, clasification
- ⇨ Acute myeloblastic leukemia, chronić myelogenous leukemia
- ⇨ Acute lymphoblastic leukemia
- ⇨ Small cell B – cell lymphoma
- ⇨ Follicular lymphoma
- ⇨ Burkitt lymphoma
- ⇨ DLBCL
- ⇨ Plasmocytic lymphoma – Myeloma and dyscrasias
- ⇨ Mycosis fungoides and Sezary syndrome

Slides:

1.	*acute myelogenous leukemia; AML*	**063**
2.	Lymphoma (*lymphoma malignum)*	**180,183**
3.	*Hodgkin lymphoma, lymphocyte depletion type*	**220**
4.	*Hodgkin lymphoma, mixed cellularity type*	**089**
5.	*Hodgkin lymphoma, nodular sclerosis type*	**007**
6.	Multiple myeloma (*myeloma multiplex)*	**055**
7.	Solitary myeloma- rib tumor *(plasmocytoma; plasma cel myeloma)*	**231**
8.	Disseminated Intravascular Coagulation DIC (*microangipatia thrombotica, ang. DIC)*	**211**

!! TEST (exercises 1-10 and lectures 1,2)