

OAP-PA2-T PATHOLOGY 2 - SYSTEMIC - ORGAN PATHOLOGY

Course director:

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8 credit • final exam • Pre-clinical subject for the module • spring semester • recommended semester: 6

Number of hours/semester: **56 lectures + 28 practices + 28 seminars = total of 112 hours**

Course headcount limitations (min.-max.): **5 – 999** Prerequisites: **see your [Recommended Curriculum](#)**

The subject can only be registered in case of a PASSED and valid health aptitude test!

Topic

There is a special emphasis during the course on the clinicopathological view of the diseases, i.e., understanding the relationship of the clinical symptoms, macroscopical and microscopical changes of the diseased organs. By the end of the academic year, a basic clinicopathological affinity and competence in differential diagnosis is required of the students. Fundamentals and major examples of specific, organ pathology are discussed. The systemic pathology course involves the major fields of organ pathology not discussed in Pathology 1: dermatopathology, hematopathology, pathology of the gastrointestinal tract, liver, biliary tract, pancreas, kidney, male and female genital tract, skeletal system, endocrine system and soft tissues pathology. Cardiovascular pathology and pathology of the respiratory tract have been discussed during Pathology 1 course.

The main educational task of the subject:

The pathology course will form the basis for later clinical studies by teaching organ specific pathology knowledge, including the etiology and pathomechanism of diseases and the entire spectrum of pathological diagnostics from macroscopy and microscopy to special ancillary techniques (ultrastructural analysis, molecular pathology) with their clinical relevance.

Conditions for acceptance of the semester

Absences exceeding 15% each of the histopathology and autopsy practical classes will result in denial of signing the gradebook. Maximum absence: two (2x45 min.) Histology and two (2x45 min.) Autopsy practises.

Mid-term exams

The capability of recognising diseases on the basis of gross morphology, interpreting basic clinicopathology and giving differential diagnostics will be examined during the regular autopsy classes of the last (14th) weeks of the second semester. A student whose performance is not found at least satisfactory will get one additional macropreparation during the final exam.

One macropreparation and one histological preparation as well as two theoretical questions will be given to the students during the final examination at the end of the course. The theoretical questions include the entire organ pathology, cardiovascular pathology and pathology of the respiratory tract are included.

Making up for missed classes

Making up for missed classes

Each missed seminar has to be made up for with another group in the same week.

Reading material

- *Obligatory literature*

- *Literature developed by the Department*

Lecture handouts are available on the webpage of the department.

- *Notes*

- *Recommended literature*

S. L. Robins, V. Kumar: Basic Pathology, 9th edition, Saunders Company, 2012

Lectures

- 1 Congenital malformations of face, inflammatory changes, tumor-like conditions and tumours of the oral cavity
Dr. Bogner Barna István
- 2 Inflammatory diseases and tumours of the salivary glands
Dr. Bogner Barna István
- 3 Congenital and acquired diseases as well as tumors of the oesophagus
Dr. Bogner Barna István
- 4 Pathology of the stomach
Dr. Bogner Barna István
- 5 Pathology of the small intestines
Dr. Bogner Barna István
- 6 Pathology of the colon and rectum
Dr. Bogner Barna István

- 7 Circulatory disorders of the liver. Non-viral inflammations in the liver. Drug hepatopathies
Dr. Pajor László
- 8 Acute viral hepatitis
Dr. Pajor László
- 9 Chronic viral hepatitis
Dr. Pajor László
- 10 Cirrhosis and hepatic failure
Dr. Pajor László
- 11 Tumor-like conditions and true neoplasia of the liver
Dr. Pajor László
- 12 Pathology of the extrahepatic bile ducts and exocrine pancreas
Dr. Pajor László
- 13 Renal failure
Dr. Kereskai László
- 14 Cystic diseases of the kidney
Dr. Kereskai László
- 15 Pathogenesis and classification of glomerulonephritides
Dr. Kereskai László
- 16 Tubulointerstitial and vascular diseases
Dr. Kereskai László
- 17 Renal neoplasms
Dr. Kereskai László
- 18 Pathology of the bladder and ureter
Dr. Kereskai László
- 19 Ontogenesis of the lymphoid cells, lymphoid cell populations
Dr. Kajtár Béla
- 20 Reactive lymph node changes
Dr. Kajtár Béla
- 21 B-cell lymphomas
Dr. Kajtár Béla
- 22 T/NK cell lymphomas
Dr. Kajtár Béla
- 23 Hodgkin lymphoma
Dr. Kajtár Béla
- 24 Haemopoiesis. Myeloproliferative neoplasms
Dr. Kajtár Béla
- 25 Acute myeloid leukaemias and myelodysplastic syndromes
Dr. Kajtár Béla
- 26 Malformations of the brain, hydrocephalus, cerebral edema
Dr. Kajtár Béla
- 27 Vascular disorders of the central nervous system
Dr. Kajtár Béla
- 28 Dementias, neurodegenerative disorders.
Dr. Kajtár Béla
- 29 Demyelination disorders, multiple sclerosis.
Dr. Kajtár Béla
- 30 Inflammations of the central nervous system
Dr. Kajtár Béla
- 31 Central nervous system tumors
Dr. Kajtár Béla
- 32 Pathological conditions of the hypothalamo-hypophyseal system
Dr. Tornóczki Tamás
- 33 Pathology of the thyroid gland (developmental abnormalities, hyperplasia, thyroiditis, tumours)
Dr. Tornóczki Tamás
- 34 Pathology of the parathyroid glands
Dr. Tornóczki Tamás
- 35 Pathology of the adrenal gland. MEN
Dr. Tornóczki Tamás

- 36 Pathogenesis of the soft tissue tumors. Fibrous, fibrohistiocytic neoplasms of the soft tissues and tumors of the fat tissue
Dr. Tornóczy Tamás
- 37 Tumors of the smooth- and striated muscle. Tumors of the peripheral nerves, PNET. Synovial sarcoma.
Dr. Tornóczy Tamás
- 38 Pathology of the testis and its appendices
Dr. Semjén Dávid
- 39 Pathology of the prostate
Dr. Semjén Dávid
- 40 Pathology of the penis
Dr. Semjén Dávid
- 41 Pathology of the vulva and the vagina
Dr. Kálmán Endre
- 42 Inflammatory lesions of the female genital tract
Dr. Kálmán Endre
- 43 Sexually transmitted diseases
Dr. Kálmán Endre
- 44 Pathology of the cervix
Dr. Kálmán Endre
- 45 Pathology of the uterine corpus
Dr. Kálmán Endre
- 46 Pathology of the ovaries
Dr. Kálmán Endre
- 47 Pathology of pregnancy I (abnormalities of implantation, gestosis, trophoblastic tumours)
Dr. Kálmán Endre
- 48 Pathology of pregnancy II (transplacental infections, chromosomal aberrations)
Dr. Kálmán Endre
- 49 Pathology of the breast
Dr. Kálmán Endre
- 50 Dermathopathology I
Dr. Gyömörei Csaba
- 51 Dermathopathology II
Dr. Gyömörei Csaba
- 52 Dermathopathology III
Dr. Gyömörei Csaba
- 53 Dermathopathology IV
Dr. Gyömörei Csaba
- 54 Hereditary, inflammatory and metabolic bone diseases
Dr. Kereskai László
- 55 Benign bone tumors
Dr. Kereskai László
- 56 Malignant bone tumors
Dr. Kereskai László

Practices

- 1-28 One autopsy case per week, with detailed clinicopathological discussion

Seminars

- 1 Week 1: Pathology of the gastrointestinal tract 1 -
Preparations: Esophageal diverticulum, Esophageal carcinoma, Penetrating, chronic, ventricular ulcer (penetrating into pancreas), Exophytic carcinoma of the stomach, Pyloric carcinoma
Slides: Pleiomorphic adenoma, Helicobacter pylori infection (Warthin-Starry), Coeliac disease - subtotal/total villus atrophy (Marsh 3c)
- 2 Week 1: Pathology of the gastrointestinal tract 1 -
Preparations: Esophageal diverticulum, Esophageal carcinoma, Penetrating, chronic, ventricular ulcer (penetrating into pancreas), Exophytic carcinoma of the stomach, Pyloric carcinoma
Slides: Pleiomorphic adenoma, Helicobacter pylori infection (Warthin-Starry), Coeliac disease - subtotal/total villus atrophy (Marsh 3c)

- 3 Week 2: Pathology of the gastrointestinal tract 2 -
Preparations: Crohn's disease, Colonic diverticulosis, Ulcerative colitis, Rectal polyp (repetition), Rectal adenocarcinoma (repetition), Linitis plastica and Krukenberg tumor
Slides: Crohn's disease, Carcinoid of the appendix, Rectal adenocarcinoma
- 4 Week 2: Pathology of the gastrointestinal tract 2 -
Preparations: Crohn's disease, Colonic diverticulosis, Ulcerative colitis, Rectal polyp (repetition), Rectal adenocarcinoma (repetition), Linitis plastica and Krukenberg tumor
Slides: Crohn's disease, Carcinoid of the appendix, Rectal adenocarcinoma
- 5 Week 3: Pathology of liver, bile ducts, pancreas -
Preparations: Echinococcus cysts in the liver, Macronodular (postnecrotic) cirrhosis, Focal nodular hyperplasia, Hepatocellular carcinoma, Cholelithiasis, chronic cholecystitis and empyema, Adenocarcinoma of the gall bladder with multiple liver metastases, Pancreatic carcinoma
Slides: HBs-antigen positivism (Shikata-orcein), Alcoholic hepatitis, Hepatocellular carcinoma in cirrhosis
- 6 Week 3: Pathology of liver, bile ducts, pancreas -
Preparations: Echinococcus cysts in the liver, Macronodular (postnecrotic) cirrhosis, Focal nodular hyperplasia, Hepatocellular carcinoma, Cholelithiasis, chronic cholecystitis and empyema, Adenocarcinoma of the gall bladder with multiple liver metastases, Pancreatic carcinoma
Slides: HBs-antigen positivism (Shikata-orcein), Alcoholic hepatitis, Hepatocellular carcinoma in cirrhosis
- 7 Week 4: Nephro- and uropathology -
Preparations: Polycystic kidney (infantile sponge kidney), Polycystic kidney (adult type), Pyelonephritis abscedens. Necrosis of papilla, Nephrosclerosis, Congenital hydronephrosis, Clear cell carcinoma of kidney, Wilms' tumor, Urothelial carcinoma of the bladder
Slides: Rapidly progressive GN with crescents, Hyalinised glomeruli, Kimmelstiel Wilson syndrome, Clear cell carcinoma of the kidney, Urothelial carcinoma of the renal pelvis
- 8 Week 4: Nephro- and uropathology -
Preparations: Polycystic kidney (infantile sponge kidney), Polycystic kidney (adult type), Pyelonephritis abscedens. Necrosis of papilla, Nephrosclerosis, Congenital hydronephrosis, Clear cell carcinoma of kidney, Wilms' tumor, Urothelial carcinoma of the bladder
Slides: Rapidly progressive GN with crescents, Hyalinised glomeruli, Kimmelstiel Wilson syndrome, Clear cell carcinoma of the kidney, Urothelial carcinoma of the renal pelvis
- 9 Week 5: Hematopathology -
Preparations: Burkitt's lymphoma, Multiple myeloma, CML - extreme splenomegaly, Lymphomatous polyposis of small and large intestine
Slides: Toxoplasma lymphadenitis, Follicular lymphoma, CLL/SLL infiltration in lymph node, Diffuse large B-cell lymphoma, Hodgkin lymphoma, CML, CP smear
- 10 Week 5: Hematopathology -
Preparations: Burkitt's lymphoma, Multiple myeloma, CML - extreme splenomegaly, Lymphomatous polyposis of small and large intestine
Slides: Toxoplasma lymphadenitis, Follicular lymphoma, CLL/SLL infiltration in lymph node, Diffuse large B-cell lymphoma, Hodgkin lymphoma, CML, CP smear
- 11 Week 6: Neuropathology 1 -
Preparations: Epidural haemorrhage, Subdural haemorrhage, Subarachnoidal haemorrhage, Secondary hemorrhage of the pons, hemocephalus
Slides: Prion disease, spongiform encephalopathy
- 12 Week 6: Neuropathology 1 -
Preparations: Epidural haemorrhage, Subdural haemorrhage, Subarachnoidal haemorrhage, Secondary hemorrhage of the pons, hemocephalus
Slides: Prion disease, spongiform encephalopathy
- 13 Week 7: Neuropathology 2 -
Preparations: Meningioma, Glioblastoma, Medulloblastoma, Multiple brain metastases, Cerebral atrophy (repetition), Multiple sclerosis
Slides: Oligodendroglioma, Glioblastoma, Senile plaques and neurofibrillar degeneration

- 14 Week 7: Neuropathology 2 -
Preparations: Meningioma, Glioblastoma, Medulloblastoma, Multiple brain metastases, Cerebral atrophy (repetition), Multiple sclerosis
Slides: Oligodendroglioma, Glioblastoma, Senile plaques and neurofibrillar degeneration
- 15 Week 8: Endocrinopathology and pathology of soft tissues 1 -
Preparations: Craniopharyngeoma, Suprarenal cortical adenoma, Papillary carcinoma of the thyroid gland
Slides: Subacute granulomatous thyroiditis (De Quervain), Papillary carcinoma of the thyroid, Graves disease, Hashimoto thyroiditis
- 16 Week 8: Endocrinopathology and pathology of soft tissues 1 -
Preparations: Craniopharyngeoma, Suprarenal cortical adenoma, Papillary carcinoma of the thyroid gland
Slides: Subacute granulomatous thyroiditis (De Quervain), Papillary carcinoma of the thyroid, Graves disease, Hashimoto thyroiditis
- 17 Week 9: Endocrinopathology and pathology of soft tissues 1 -
Slides: Parathyroid adenoma, Pheochromocytoma, Leiomyosarcoma, Myxoid liposarcoma
- 18 Week 9: Endocrinopathology and pathology of soft tissues 1 -
Slides: Parathyroid adenoma, Pheochromocytoma, Leiomyosarcoma, Myxoid liposarcoma
- 19 Week 10: Pathology of male genital tract -
Preparations: Prostate adenocarcinoma, Chronic epididymitis. Hydrocele. Atrophy of the testes, Mixed germ-cell tumor; seminoma and teratoma, Penile carcinoma
Slides: Prostatic adenocarcinoma, Seminoma, Mixed germ cell tumor: teratoma and embryonal carcinoma
- 20 Week 10: Pathology of male genital tract -
Preparations: Prostate adenocarcinoma, Chronic epididymitis. Hydrocele. Atrophy of the testes, Mixed germ-cell tumor; seminoma and teratoma, Penile carcinoma
Slides: Prostatic adenocarcinoma, Seminoma, Mixed germ cell tumor: teratoma and embryonal carcinoma
- 21 Week 11 Pathology of female genital tract 1 -
Preparations: Carcinoma of the cervix, Endometrial polyp, Carcinoma of the uterine corpus, Mucinous, multilocular cystadenoma of the ovary, Thecafibroma of the ovary, Dermoid cyst (repetition), Dysgerminoma
Slides: Endometrial adenocarcinoma (curettage), Serous papillary cystadenocarcinoma of the ovary
- 22 Week 11 Pathology of female genital tract 1 -
Preparations: Carcinoma of the cervix, Endometrial polyp, Carcinoma of the uterine corpus, Mucinous, multilocular cystadenoma of the ovary, Thecafibroma of the ovary, Dermoid cyst (repetition), Dysgerminoma
Slides: Endometrial adenocarcinoma (curettage), Serous papillary cystadenocarcinoma of the ovary
- 23 Week 12: Pathology of female genital tract 2 -
Preparations: Hydatidiform mole, Fibroadenoma of the breast (repetition), Carcinoma of the breast (repetition), Mastitis carcinomatosa, Paget's disease, Serous papillary adenocarcinoma of fallopian tube, Teratoma of the ovary (embryonal)
Slides: Hydatidiform mole, Intraductal papilloma, Paget-disease, Invasive ductal carcinoma, Mucinous carcinoma
- 24 Week 12: Pathology of female genital tract 2 -
Preparations: Hydatidiform mole, Fibroadenoma of the breast (repetition), Carcinoma of the breast (repetition), Mastitis carcinomatosa, Paget's disease, Serous papillary adenocarcinoma of fallopian tube, Teratoma of the ovary (embryonal)
Slides: Hydatidiform mole, Intraductal papilloma, Paget-disease, Invasive ductal carcinoma, Mucinous carcinoma
- 25 Week 13: Dermatopathology -
Preparations: Melanoma of the eye, Metastasizing melanoma, Cylindromatosis (turban tumour)
Slides: Seborrheic keratosis, Basal cell carcinoma, Nodular melanoma, Melanocytic nevus and superficially spreading melanoma, Bullous pemphigoid, Psoriasis

- 26 Week 13: Dermatopathology -
Preparations: Melanoma of the eye, Metastasizing melanoma, Cyndromatosis (turban tumour)
Slides: Seborrhoeic keratosis, Basal cell carcinoma, Nodular melanoma, Melanocytic nevus and superficially spreading melanoma, Bullous pemphigoid, Psoriasis
- 27 Week 14: Pathology of the bone -
Preparations: Osteogenic sarcoma, Chondrosarcoma
Slides: Giant cell tumor of bone (osteoclastoma)
- 28 Week 14: Pathology of the bone -
Preparations: Osteogenic sarcoma, Chondrosarcoma
Slides: Giant cell tumor of bone (osteoclastoma)

Exam topics/questions

PREPARATIONS

I. PATHOLOGY OF THE GASTROINTESTINAL TRACT

1. Esophageal diverticulum
2. Esophageal carcinoma
3. Penetrating, chronic, ventricular ulcer (penetrating into pancreas)
4. Exophytic carcinoma of the stomach
5. Pyloric carcinoma
6. Crohn's disease
7. Colonic diverticulosis
8. Ulcerative colitis
9. Rectal polyp (repetition)
10. Rectal adenocarcinoma (repetition)
11. Linitis plastica and Krukenberg tumor

II. PATHOLOGY OF LIVER, BILIARY TRACT, PANCREAS

12. Echinococcus cysts in the liver
13. Macronodular (postnecrotic) cirrhosis
14. Focal nodular hyperplasia
15. Hepatocellular carcinoma
16. Cholelithiasis, chronic cholecystitis and empyema

III. NEPHRO AND UROPATHOLOGY

17. Polycystic kidney (infantile sponge kidney)
18. Polycystic kidney (adult type)
19. Nephrosclerosis
20. Congenital hydronephrosis
21. Clear cell carcinoma of kidney
22. Wilms' tumor
23. Urothelial carcinoma of the bladder

IV. HEMATOPATHOLOGY

24. Burkitt's lymphoma
25. Multiple myeloma
26. CML extreme splenomegaly
27. Lymphomatous polyposis of small and large intestine

V. NEUROPATHOLOGY

28. Epidural haemorrhage
29. Subdural haemorrhage
30. Subarachnoidal haemorrhage
31. Secondary hemorrhage of the pons, hematocephalus
32. Meningioma
33. Glioblastoma
34. Medulloblastoma

- 35. Multiple brain metastases
- 36. Cerebral atrophy (repetition)
- 37. Multiple sclerosis

VI. ENDOCRINOPATHOLOGY AND PATHOLOGY OF SOFT TISSUES

- 39. Craniopharyngeoma
- 40. Suprarenal cortical adenoma
- 41. Papillary carcinoma of the thyroid gland

VII. PATHOLOGY OF MALE GENITAL TRACT

- 42. Prostate adenocarcinoma
- 43. Mixed germ cell tumor; seminoma and teratoma
- 44. Penal carcinoma

VIII. PATHOLOGY OF FEMALE GENITAL TRACT

- 45. Carcinoma of the cervix
- 46. Endometrial polyp
- 47. Carcinoma of the uterine corpus
- 48. Serous papillary adenocarcinoma of fallopian tube
- 49. Mucinous, multilocular cystadenoma of the ovary
- 50. Teratoma of the ovary (embryonal)
- 51. Dermoid cyst (repetition)
- 52. Thecofibroma
- 53. Hydatidiform mole
- 54. Fibroadenoma of the breast (repetition)
- 55. Carcinoma of the breast (repetition)
- 56. Paget's disease

IX. DERMATOPATHOLOGY

- 57. Melanoma of the eye
- 58. Metastasizing melanoma
- 59. Cyndromatosis (turban tumour)

X. PATHOLOGY OF BONES

- 59. Osteogenic sarcoma
- 60. Chondrosarcoma

SLIDES

I. PATHOLOGY OF THE GASTROINTESTINAL TRACT

- 1. Pleiomorphic adenoma
- 2. Helicobacter pylori infection (Warthin-Starry)
- 3. Celiac disease - subtotal/total villus atrophy (Marsh 3c)
- 4. Crohn's disease
- 5. Neuroendocrine tumor (carcinoid) of the appendix
- 6. Rectal adenocarcinoma

II. PATHOLOGY OF LIVER, BILE TRACT, PANCREAS

- 7. Congenital hepatic fibrosis
- 8. HBs antigen positivity (Shikata orcein)
- 9. Chronic hepatitis
- 10. Hepatocellular carcinoma in cirrhosis

III. NEPHRO AND UROPATHOLOGY

- 11. Rapidly progressive GN with crescents
- 12. Hyalinised glomeruli
- 13. Kimmelstiel Wilson syndrome
- 14. Clear cell carcinoma of the kidney

15. Urothelial carcinoma of the renal pelvis

IV. HAEMATOPATHOLOGY

- 16. Toxoplasma lymphadenitis
- 17. Follicular lymphoma
- 18. CLL/SLL infiltration in lymph node
- 19. Diffuse large B cell lymphoma
- 20. Hodgkin lymphoma
- 21. CML, CP smear

V. NEUROPATHOLOGY

- 22. Oligodendroglioma
- 23. Glioblastoma
- 24. Senile plaques and neurofibrillar degeneration
- 25. Prion disease, spongiform encephalopathy

VI. ENDOCRINOPATHOLOGY AND PATHOLOGY OF SOFT TISSUES

- 26. Subacute granulomatous thyroiditis (De Quervain)
- 27. Papillary carcinoma of the thyroid
- 28. Graves disease
- 29. Hashimoto thyroiditis
- 30. Parathyroid adenoma
- 31. Pheochromocytoma
- 32. Leiomyosarcoma
- 33. Myxoid liposarcoma

VII. PATHOLOGY OF MALE GENITAL TRACT

- 34. Prostatic adenocarcinoma
- 35. Seminoma
- 36. Mixed germ cell tumor

VIII. PATHOLOGY OF FEMALE GENITAL TRACT

- 37. Endometrial adenocarcinoma (curettage)
- 38. Serous papillary cystadenocarcinoma of the ovary
- 39. Hydatidiform mole
- 40. Complex sclerosing lesion
- 41. Paget disease
- 42. Invasive ductal carcinoma

IX. DERMATOPATHOLOGY

- 43. Seborrhoeic keratosis
- 44. Basal cell carcinoma
- 45. Nodular melanoma
- 46. Melanocytic nevus and superficially spreading melanoma
- 47. Bullous pemphigoid
- 48. Psoriasis

X. PATHOLOGY OF BONES

- 49. Giant cell tumor of bone (osteoclastoma)

THEORETICAL QUESTIONS

I. PATHOLOGY OF THE GASTROINTESTINAL TRACT

1. Developmental malformations of the face. Inflammatory and tumorous diseases of the oral cavity
2. Pathology of the salivary glands
3. Diseases of the oesophagus
4. Inflammatory and ulcerative disorders of the stomach
5. The benign and malignant tumours of the stomach
6. Malformations of the small intestine. Malabsorption. Tumors of the small intestine
7. Diverticulosis of the colon. Pathology of colonic polyps
8. Crohn's disease and ulcerative colitis
9. Colorectal malignancies and their relationship to polypous lesions
10. Diseases of the appendix and the peritoneum (appendicitis, mucocele, peritonitis, retroperitoneal sclerosis, pseudomyxoma of the peritoneum).

II. PATHOLOGY OF LIVER, BILE DUCTS, PANCREAS

11. Hepatic lesions caused by circulatory disorders. Nonviral inflammatory diseases of the liver. Drug hepatopathies.
12. Acute viral hepatitis (aetiology, pathomorphology, complicated forms)
13. Chronic viral hepatitis (aetiology, types; pathomorphology and differential diagnostics, detection of virus associated antigens and their significance)
14. Cirrhosis and hepatic failure
15. Tumours and tumorlike conditions of the liver
16. Cholelithiasis (aetiology and complications) and pathology of the extrahepatic biliary tract
17. Acute and chronic pancreatitis. Tumours of the pancreas

III. NEPHRO AND UROPATHOLOGY

18. Renal failure, uraemia. Congenital malformations and cystic diseases of the kidney.
19. Glomerulonephritis: classification according to clinical symptoms. Histologic alterations in glomerulonephritides
20. Nephrosis syndrome: minimal change, membranous glomerulonephritis, focal segmental glomerulosclerosis, membranoproliferative glomerulonephritis.
21. IgA nephropathy, chronic glomerulonephritis. Glomerular lesions associated with systemic disorders (SLE, Henoch-Schönlein purpura, Wegener's granulomatosis, amyloidosis)
22. Nephritic syndrome (acute poststreptococcal glomerulonephritis). Rapidly progressive glomerulonephritis.
23. Acute tubular necrosis (ischaemic and toxic). Druginduced (hypersensitive) interstitial nephritis, analgetic nephropathy, urate nephropathy. Acute and chronic pyelonephritis
24. Benign and malignant nephrosclerosis and diffuse cortical necrosis. Diabetic nephropathy.
25. Renal tumours (oncocytoma, renocellular cancer, Wilms tumor, urothelial carcinoma of the renal pelvis)
26. Cystitides, tumours of the bladder and ureter

IV. HAEMATOPATHOLOGY

27. Reactive lymph node changes
28. Indolent B cell lymphomas (FL, CLL, MCL, MZL)
29. High grade B cell lymphomas (BL, DLBCL). Plasma cell neoplasms
30. Hodgkin lymphoma
31. T/NK cell lymphomas.
32. Nonneoplastic bone marrow disorders (anaemia, leukocytosis and leukopenia, thrombocytopenia)
33. AML and MDS
34. Myeloproliferative neoplasms

V. NEUROPATHOLOGY

35. Cerebral edema, hydrocephalus, malformations of the brain
36. Dementias and neurodegenerative disorders
37. Demyelination disorders
38. Infectious diseases of the CNS
39. Cerebrovascular diseases, intracranial haemorrhages
40. Glial central nervous system tumors
41. Nonglial central nervous system tumors

VI. ENDOCRINOPATHOLOGY AND PATHOLOGY OF SOFT TISSUES

42. Anterior lobe pituitary tumours and their consequences. Posterior lobe syndromes. Disorders associated with hypopituitarism (Sheehan's syndrome, chromophobic adenoma, empty sella syndrome, suprasellar tumours)
43. Inflammatory, tumorous diseases as well as disorders associated with hyperplasia of the thyroid gland.
44. Pathology of the parathyroid glands (hyperplasia, adenoma, causes of hypoparathyroidism). Multiple endocrine neoplasms.
45. Causes and clinical consequences of hyperplasia and atrophy of the suprarenal gland. Cortical tumours of the suprarenal gland (morphology, clinical syndromes) Cortical insufficiency of the suprarenal gland. Tumors of the adrenal medulla.
46. Pathogenesis and frequency of soft tissue tumours. Fibrous tumours and tumourlike lesions. Fibrosarcoma. Fibromatoses. So-called fibrohistiocytic tumors.
47. Tumours of adipose tissue and peripheral nerves, synovial sarcoma.
48. Tumours of smooth and striated muscle (leiomyoma, leiomyosarcoma, rhabdomyoma and rhabdomyosarcoma, types)

VII. PATHOLOGY MALE GENITAL TRACT

49. Congenital malformations, inflammations and tumors of the penis
50. Prostatitides. Hyperplasia of the prostate, complications
51. Tumours of the prostate (pathogenesis, morphology, screening, diagnosis)
52. Cryptorchism, inflammations of the testis, pathology of the testicular capsule and the epididymis
53. Testicular tumours, classification, tumour markers

VIII. PATHOLOGY OF FEMALE GENITAL TRACT

54. Pathology of vulva and vagina. Venereal infections.
55. Inflammations, tumourlike lesions and tumours of the cervix. Carcinoma of the cervix (pathogenesis, pathomorphology, screening).
56. Adenomyosis and endometriosis. Dysfunctional bleedings. Endometrial hyperplasia. Endometritises.
57. Pathology of the uterine corpus and the fallopian tube
58. Cysts and tumours of the ovaries (surface epithelial, germ cell, sex cordstromal tumours, tumours, metastases)
59. Pathology of pregnancy I (implantation disorders, gestosis, trophoblastic tumours)
60. Pathology of pregnancy II (transplacental infections, chromosomal aberrations)
61. Mastitides (lactational, ductus ectasia, fat necrosis, galactocele). Mastopathies (fibrocystic change). Fibroepithelial tumours.
62. Breast carcinoma. Pathogenesis, types, prognosis.

IX. DERMATOPATHOLOGY

63. Melanocytic lesions
64. Epithelial tumours of the skin
65. Inflammatory skin diseases

X. PATHOLOGY OF BONES

66. Hereditary, inflammatory and metabolic bone diseases
67. Benign and malignant bone tumours

XI. CARDIOVASCULAR PATHOLOGY

68. Angina pectoris, chronic ischemic heart disease, sudden cardiac death.
69. Clinicopathology of acute myocardial infarction.
70. Pathology of the valvular disorders (inflammatory and degenerative ones).
71. Cardiomyopathies. Tumors and tumor-like conditions of the heart.
72. Myocarditis. Pathology of the pericardium.
73. Congenital heart diseases.
74. Types and clinicopathology of the aneurysms.
75. Pathogenesis, classification and clinicopathology of vasculitides. Vascular tumours.

XII. PATHOLOGY OF RESPIRATORY TRACT

76. Diseases of the upper airways (inflammations, benign and malignant tumors of the sinonasal tract, inflammations and malignant tumors of the larynx)
77. Congenital anomalies of the lungs, atelectasis, acute lung injury
78. Infectious disorders of the lower airways (examples of nosocomial and community acquired pneumonia, atypical pneumonia, immunosuppression related infections)
79. General characteristics and types of chronic obstructive lung diseases
80. Chronic restrictive lung diseases I: IPF/UIP, NSIP, OP, hypersensitive pneumonitis
81. Chronic restrictive lung diseases II: pneumoconioses
82. Vascular diseases of the lung (types of pulmonary hypertension, Wegener granulomatosis, Goodpasture syndrome)

83. Malignant lung tumors

84. Pleural and mediastinal disorders

Comment: The Department of Pathology reserves the right of minor modifications in the curriculum

Information – The following skills of the Booklet for Clinical Skills shall be accomplished in the framework of the subject

Participants

Dr. Kajtár Béla (SOUO7C), Dr. Kálmán Endre (H4MBX2), Dr. Kaszás Bálint (C6EZUZ), Dr. Kereskai László (C0HFTF), Dr. Pap Anita (DO1ZZP), Dr. Semjén Dávid (D3T05F), Dr. Vida Livia (XJJ5MJ)