

# DISCIPLINE ANNOTATION:

## RELEVANT ISSUES OF CLINICAL PATHOMORPHOLOGY

Relevant issues of clinical pathomorphology is an elective discipline that advances and systematizes knowledge of the etiology, pathogenesis, classifications, course, pathomorphology, complications and basics of modern morphological diagnostics of the most common and urgent diseases, pathological conditions and tumor processes that are not properly reflected in the Pathomorphology course.

**The goal of the Relevant issues** of clinical pathomorphology discipline is to teach students modern methods of morphological research, develop the ability to interpret the etiology, pathogenesis and morphological changes at different stages of disease development, structural foundations of recovery, complications and consequences of diseases and tumors studied during the course, the ability to interpret the etiology, pathogenesis and morphological manifestations of extreme and terminal conditions of the body, the ability to interpret the causes of pathomorphosis of diseases and the etiology, clinical and pathological manifestations of iatrogenic pathology.

**Key objectives of the discipline:** to learn modern methods of morphological examination of biopsy and surgical material and the possibility of their application in the clinic; to master the procedure for collecting and sending material, interpreting the results; to master methods of vital morphological diagnostics in oncomorphology; to master the principles of immunomorphological studies and their importance in the verification of tumors and other pathomorphological processes; to interpret the etiology, pathogenesis, course, clinical and morphological changes, complications and consequences of the most common and most relevant diseases, pathological conditions and tumor processes; to interpret the etiology, pathogenesis, course and morphological manifestations of extreme and terminal conditions of the body; to interpret the causes of pathomorphosis of diseases; to interpret the etiology, clinical and pathological manifestations of iatrogenic pathology.

**Prerequisites of the discipline:** normal anatomy, physiology, histology, pathomorphology, pathological physiology, propedeutics of internal medicine, general surgery.

**Co-requisites of the discipline:** internal medicine, family medicine, obstetrics and gynecology, surgery, oncology, dermatology, infectious diseases.

## **Content of the academic discipline.**

**SECTION I.** Modern problems of clinical pathomorphology. The role of morphological examination of biopsy and surgical material in the diagnosis. Procedure for sampling and sending material, interpretation of results. Modern methods of lifetime morphological diagnostics in oncomorphology. Examination of the latter using evidence-based medicine. Immunomorphology as one of the modern diagnostic methods and its role in the verification of tumors and other pathomorphological processes. The concept of nodular pathology of the thyroid gland. Morphology of thyroid nodules. Modern methods of preoperative diagnostics of thyroid nodules. Tumors of the thyroid gland. Morphological diagnostics of gastric diseases by gastrobiopsy. The role of gastrobiopsy in diagnosing and determining the treatment plan for patients with gastric pathology. Types of intestinal metaplasia. Helicobacter-associated gastritis. Methods of morphological detection of *Helicobacter pylori*. Features of reactive morphological changes in the gastric mucosa in diseases of other organs of the gastrointestinal tract. Morphology of Barrett's esophagus.

**SECTION II.** Pre-cancerous diseases and cervical cancer. Polyps and endocervicosis. Squamous cell intraepithelial lesions of the cervix, their differential diagnostics. The role of human papillomavirus in their development. Study of biopsy and postoperative material. Modern approaches to the concept of lymphoma. Principles of clinical, morphological and cytogenetic classification. Morphogenesis and pathomorphological characteristics of Hodgkin's lymphoma and the main types of non-Hodgkin's T- and B-cell lymphomas. Diagnostic and prognostic immunohistochemical markers. Differential diagnostics and clinical significance of immunophenotyping of lymphomas. Clinical and morphological features of some systemic connective tissue diseases: rheumatism, systemic lupus erythematosus, rheumatoid arthritis, dermatomyositis. Systemic vasculitis. Classification, etiology, pathogenesis, pathomorphology, complications, morphological diagnostics of these diseases.

**SECTION III.** Coronavirus infection. COVID-19. Etiology, epidemiological features, pathogenesis, diagnostics, clinical picture, features of the course and clinical and pathomorphological picture, complications. Tuberculosis. Epidemiology, etiology, pathogenesis, clinical and pathomorphological classification, clinical picture, pathomorphological changes. Features of modern tuberculosis. Pathology of pregnancy. Maternal diseases as a risk factor for pregnancy pathol

ogy. Diagnostics of complications of early pregnancy. Gestosis. Miscarriage of pregnancy. Placental pathology, the impact of pathological changes in the placenta on fetal development. Impact of various factors in fetal development disorders. Classification. Gametopathies, blastopathies, embryopathies. Fetopathies. Critical periods of fetal development. Hereditary metabolic disorders (the-saurismosis). Congenital anomalies of various organs and systems. Birth trauma and birth injuries.

