

MORPHOLOGICAL STUDIES AND THEIR SIGNIFICANCE IN PULMONARY TUBERCULOSIS IN HOSPITALIZED PHTHISIO-PULMONOLOGICAL PATIENTS IN UKRAINE

*I. V. Liskina, O. O. Melnyk, L. M. Zahaba, O. D. Nikolayeva,
A. O. Kozukina, A. F. Grenchyk*

Abstract

The aim was to analyze the effectiveness of morphological diagnostics of biopsy and surgical material and to determine the value of histological diagnostics for establishing a clinical diagnosis, taking into account the forms and phases of pulmonary tuberculosis (TB).

Materials and methods. A retrospective cohort study was conducted, which included 361 patients with confirmed pulmonary TB by microbiology and/or molecular-genetic methods. The general clinical, microbiology and different morphological tests data (cytology and histology) were collected in different years of the study. Descriptive and analytical statistical methods were used in the data analysis.

Results. A gradual decrease in the proportion of biopsies for pulmonary TB was established during the study period. Moreover, the number of histological examinations significantly decreased ($p < 0.05$) in 2023 compared to 2019. The diagnostic efficiency of cytological examination varied within 35–54 % in different years, and histological examination was 71–74 %. In cases of extensive lesions (pulmonary and pleural TB), on the contrary, there was a tendency for the higher rate of histological examinations — from 42.7 to 59.4 % in 2019 and 2023, respectively. The efficiency of pleural cytological examination compared to lung biopsies was lower — 13–35 %. On the contrary, the efficiency of histological examination was 93–97 % in 2019 and 2021 and was slightly lower (74 %), in 2023. In cases of surgical interventions, the morphological degree of activity of a specific process was determined and the clinical form of pulmonary TB was established or clarified. At the time of surgery, a high degree of activity was found in at least one third of the cases: in different years it varied within 30–42 %. The transformation of clinical forms of pulmonary TB was determined according to pathomorphological examination of surgical material compared with the TB form at the time of the first diagnosis in most of these patients.

Conclusion. The total number of lung and pleural biopsies in patients with pulmonary TB is relatively small, and its gradual decrease in recent years has been noted. This is explained by the improvement of bacteriological diagnostics of TB. The importance of morphological study, primarily histological, in cases of surgical treatment of patients with pulmonary TB has been established. It allows to establish objectively the morphological degree of activity of specific inflammation at the time of surgical intervention and to clarify the form of pulmonary TB. The latter is important in terms of further postoperative choice and administration of the optimal treatment regimen, as well as an objective prognosis of the course of the disease in general.

Key words: pulmonary tuberculosis, histological and cytological diagnostics.

Iryna V. Liskina

*SO «National scientific center of phthisiatry, pulmonology
and allergology named after F. G. Yanovsky NAMS of Ukraine»*

Head of Pathomorphology Department

Doctor of medicine, senior researcher

10, M. Amosova str., 03038, Kyiv

Tel.: 380979962212, liskina@ifp.kiev.ua

ORCID: 0000-0001-8879-2345