

NON-NEOPLASTIC SOLITARY FOCAL LESIONS OF THE LUNGS: COMPARATIVE ANALYSIS OF CLINICAL AND MORPHOLOGICAL MANIFESTATIONS

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Abstract

Non-neoplastic solitary focal lesions of the lungs are a fairly common finding during radiological examination. The primary task in the medical management of such patients is to establish the nature of such formations, both in order to rule out a malignant process and for further treatment if necessary.

The aim of the work was to conduct a comparative analysis of clinical, radiological data and the results of morphological diagnostics of non-neoplastic solitary focal lesions of the lungs, taking into account one of the important histological features, namely the absence or presence of a necrotic component in the pathological focus.

Materials and methods. The study was cohort, retrospective and included all clinical observations for the period 2017-2021 years. 126 patients with solitary lung foci of a non-neoplastic nature with morphological diagnosis of these formations were selected. Patients were divided into two groups depending on the presence or absence of necrotic changes in the composition of the tumor, according to histological examination. The available history, clinical, general laboratory data for each patient, the results of a microbiological examination of the lung tissue for the presence of mycobacteria and non-specific microorganisms, the results of molecular genetic analysis for tuberculosis mycobacteria were evaluated. A number of clinical chemistry and immunology were also considered.

Results. Study data are presented in tables. Differences between groups were analyzed. It was established that, in general, females predominate, and formations without necrotic lesions were observed more common in older women. The main differences were related to the diagnostic procedure - in the group without necrotic changes only minimally invasive interventions were performed (47.6 % of cases); in the group with necrotic formations in most cases (83.4 %) the lung surgery was performed. In both groups, the average size of foci was almost the same (16-17 mm), no significant differences were found by radiological signs. The preliminary clinical diagnosis in most patients of both groups was "lesion of unknown origin". Based on the results of morphological examination, it was found that cytology was not very informative in 18-50 % of cases. In 23.8 % of cases a specific inflammatory process was established or suspected when necrotic foci. In other cases an inflammation was determined. Histological examination made it possible to establish the etiology of the pulmonary focus in 91.3 % of cases. Moreover, a significantly larger spectrum of various pathological processes was established in cases of necrotized foci.

Conclusion. A number of significant differences were objectively determined, mainly at the level of morphological diagnosis, between solitary non-neoplastic focal lesions with and without a necrotic component.

Key words: non-neoplastic single lung foci, diagnostics.

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