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PROLIFERATIVE ACTIVITY OF METAPLASTIC EPITHELIUM OF THE BRONCHIAL MUCOSA IN FIBROUS-CAVERNOUS TUBERCULOSIS

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The proliferative activity of the metaplastic epithelium of the bronchial mucosa was evaluated in patients with fibrous cavernous tuberculosis in order to determine the prognostic criteria for the malignancy and pathogenetic rationale for the use of alternative types of targeted therapy. The analysis of the morphological changes of the bronchial mu-

cosa of the macroscopically intact lung tissue verified the presence of chronic recurrent nonspecific bronchitis, and as it progresses, an increase in hyperplastic and dysplastic changes of the epithelial lining. To assess the malignant potential of the metaplastic epithelium, an immunohistochemical study was conducted with a Ki-67 marker based on the expression pattern of which four types of proliferative activity of the epithelium of the bronchial mucosa were distinguished, characterized by a statistically significant increase in Ki-67 compared to the control group. The maximum severity of proliferative activity was recorded in the bronchi with morphological signs of dysplasia in the form of uneven stratification of the epithelium, hyperchromatism of the nuclei, increased nuclear-cytoplasmic ratio, as well as parakeratosis or hyperkeratosis, which indicates a high malignant potential and requires a detailed basement pattern. The isolated increase in proliferative cellular activity of bronchial mucous membrane cannot be a clear diagnostic criterion for the process of malignancy, because is determined not only in dysplastic, but also in hyperplastic and metaplastic epithelium. Establishing the fact of increasing proliferative activity in the absolute majority of large and small bronchi of intact lung tissue with fibro-cavernous tuberculosis allows predicting the presence of a positive therapeutic effect when using targeted molecular therapy aimed at blocking cell proliferation processes.

Keywords: fibro-cavernous tuberculosis, bronchi, epithelium, proliferation, metaplasia, dysplasia