**Abstract**

Tuberculosis is a granulomatous disease with the etiology factor Mycobacterium tuberculosis and is characterized by the formation of caseous granulomas in various organs, mainly in the lungs. M. tuberculosis is known to be a trigger for the development of autoimmune inflammation due to the possible mimicry of proteins of bacteria with autoantigens. Recently the role of the vimentin mesenchymal protein as an autoantigen in mycobacterial infections has been actively discussed. The aim of the study is to determine autoantibodies to various modifications of vimentin in patients with tuberculosis.

**Materials and methods.** The study was conducted in 2014-2017 with the inclusion of 28 patients with pulmonary tuberculosis (group I), 30 patients with autoimmune lung diseases (group II): 15 with granulomatous polyangiitis and 15 with various alveolites. The control group consisted of healthy subjects (n = 40). The concentration of antibodies to mutated citrullinated vimentin (anti-MCV) was measured using ELISA (ORGENTEC, Germany). Patients with elevated levels of anti-MCV were tested for antibodies to cyclic citrulline peptide (anti-CCP) using ELISA (EUROIMMUN, Germany). Statistical analysis was carried out using GraphPad Prism 6 (GraphPad Software, USA), Statistica 10 (Statsoft, USA) using the methods of analysis of nonparametric samples of Mann-Whitney and chi-square, correlation analysis using the Spearman method. Differences were considered statistically significant at a p level of less than 0.05.

**Results of the study.** Concentrations of anti-MCV were significantly higher in patients with tuberculosis (group I, 60.7% of cases, 17/28) than in group II and the control group (23.6% and 25.0% of cases, respectively). There was no statistically significant difference between the results of anti-MVC and anti-CCP levels in the comparison group with the control group (p = 0.18).

**Conclusion.** The high level of anti-MCV antibodies in patients with pulmonary tuberculosis reflects the possibility of developing an autoimmune process in the pathogenesis of the disease. Measurement of plasma concentrations of anti-MCV antibodies may be important for the correction of the therapy, especially in the prescription of immunosuppressive and hormonal drugs.

It has been shown that anti-CCP are not characteristic for the lung diseases.

**Key words:** tuberculosis, vimentin, modified citrullinated vimentin, autoantibodies, анти-MCV.