DETERMINATION OF THE PROFILE OF INFLAMMATORY MARKERS IN PATIENTS WITH ACTIVE PULMONARY TUBERCULOSIS

S. Mäsiarová[1], M. Dohál[2], K. Pršo[1], I. Porvazník[3,4], I. Solovič[3,4], J. Mokrý[1]

[1]Department of Pharmacology, Jessenius Faculty of Medicine in Martin, Slovak Republic

[2]Biomedical Center Martin, Jessenius Faculty of Medicine in Martin, Slovak Republic

[3]Department of Clinical Microbiology, National Institute for Tuberculosis, Lung Diseases and Thoracic Surgery, Vyšné Hágy, Slovak Republic

[4]Faculty of Health, Catholic University, Ružomberok, Slovak Republic

Despite developing new diagnostics, drugs, and vaccines, treating tuberculosis is challenging. Monitoring inflammatory markers can contribute to diagnosing tuberculosis, identifying active and latent forms, or monitoring the success of treatment.

We determined changes in cytokine and chemokine concentrations, which play a crucial role in the inflammatory process. The study was conducted on 20 patients, of which 17 were men and 3 were women. Plasma samples with active tuberculosis were collected before the start of antibiotic treatment, after the first, and after the third week.

The results showed significantly higher ($p<0.05$) levels of FGF, CTACK, HGF, G-CSF, IL-2Rα, IL-4, IL-8, IL-18, IP-10, M-CSF, MIG, MIP - 1α, PDGF-BB, SCGF-β in patients at all three-time points compared to the control group. Moreover, in the case of the cytokines IL-1β, IL-1Ra, GRO-α, eotaxin, IL-12 (p40), IL-13, MCP-1, RANTES, and TNF-α, we observed a significant difference in only one, maximum two points. For GM-CSF, IFN-α2, and LIF, there were no differences from the control group but between individual tuberculosis patient samples.

Our results showed a clinical potential of monitoring the level of specific inflammatory markers in determining the effectiveness of treatment.

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