

Laboratory parameters in the detection of the effect of anticancer therapy on immune system

Summary

We can consider the immune response to cancer cells as the last barrier in carcinogenesis. Chemotherapeutics interfere directly or indirectly with tumour microenvironment. Our work was divided into two parts. The aim of our study was to describe the distribution of lymphocyte subsets in peripheral blood and urinary neopterin in breast cancer patients in relation to the treatment in the part one, and elucidate the correlation between CD14⁺CD16⁺ monocytes, urinary neopterin and risk factors of atherosclerosis in the part two. We show that the changes of lymphocyte subpopulations are present even at the time of cancer diagnosis. The treatment could positively affect the anticancer response. The changes of these lymphocytes subsets during therapy in patients with metastatic stage of disease are less expressed. The restoration of the immune system is a long-term process. The systemic inflammatory response connected with tumour presence could contribute to the accentuated atherosclerosis, possible long-term complication in cancer patients.