Redox status of peripheral blood neutrophils of patients with ovary cancer after polychemotherapy by CAP scheme

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The dynamics of the redox-dependent processes in blood plasma and neutrophils of the patients with ovary cancer of the IIIrd clinical stage by FIGO after polychemotherapy according to the CAP scheme is considered. In the blood plasma, there estimated the values of protein oxidative modification: Carbonyl derivatives at $\lambda=346$ nm, $370$ nm, $430$ nm and $530$ nm; the lipid peroxidation parameters: Malonic dialdehyde, dienic conjugates, ketodiens, shiff’s bases; the fermentative chain of the antioxidant system: Activities of catalase, glutation-transferase. In the peripheral blood neutrophils, there were cytochemically determined the myeloperoxidase activity and the number of the active neutrophils in the spontaneous NBTR-test. After the polychemotherapy according to the CAP scheme, there detected higher levels of the protein oxidative modification products and the products of the lipid peroxidation in the blood plasma of the patients. Simultaneous increase of the activity of the antioxidant enzymes in the blood plasma could be evident of a high level of the lipid antioxidants peroxidation system functioning. After the chemotherapy, there observed a significant and reliable decrease of the total number of the neutrophils. After the second course of the chemotherapy the activity of myeloperoxidase in them in the spontaneous NBTR-test as well decreased. Such a dynamics of the redox-dependent processes in various components of the blood in the tumor carrier was characteristic of the tumor biological picture and required the use of differential multicomponent antioxidant therapy in patients with ovary cancer.

Biography

Gening S O is a Doctor and a Clinical Intern of the Department of Oncology and Radiation Diagnosis of Ulyanovsk State University. She is a Research Engineer at Research Medical-Biological Center and has published over 50 publications and 6 patents.

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