Anti-cancer preparation NSC 631570 (UKRAIN): Modulation of the immune system

Unusual for an anticancer agent NSC 631570 possesses some distinct immune properties. The incubation of peripheral lymphocytes of healthy blood donors with NSC 631570 resulted in the increase of lymphocytes with the T-helper phenotype, decrease of the lymphocytes with T-suppressor phenotype as well as an increase of T-helper/T-suppressor ratio. NSC 631570 was administered to nine advanced stage cancer patients (4 with liver cancer, 4 with head and neck carcinomas, and one breast cancer). In three cases the tumors responded partially on the therapy, in one case a minimal response was noted, in 3 cases the disease was stable, and in 2 cases the tumors did not respond on the treatment. After the therapy, the number of T-helper cells (CD4), as well as the CD4/CD8 ratio, increased. In eight oncological patients’ immune parameters were compared before and after the treatment with NSC 631570. It was revealed NSC 631570 affected basically the thymus-dependent cells (T-cells). The number of rosette-forming T-lymphocytes was significantly higher after the treatment. No significant changes were observed in the humoral immune parameters. In nine male lung cancer patients lymphocytes subpopulations were determined before and after the therapy with NSC 631570. The therapy resulted in increased total T-cells and a reduced T-suppressor fraction. The helper-suppressor ratio normalized. There was no sign of the activation of NK cells, T-helpers as well as B-cells. The restoration of the cellular immunity correlated with the better clinical course of the disease. The effect of NSC 631570 on the functional activity of monocytes from 20 patients with lung cancer or peritonitis was studied using nitro blue tetrazolium chloride test (NBT-test). The authors reported on the positive effect of NSC 631570 on the functional activity of the macrophages as well as antioxidant systems of monocytes and erythrocytes. 23 patients with various tumors were treated with NSC 631570 and the immune e parameters were evaluated before and after the therapy. The authors observed the increase in lymphocytes and the decrease of the blood sedimentation rate. Following immune changes were also noted: increase of T-lymphocytes, T-helpers, NK- cytotoxicity, phagocytic activity, normalization of the T-helper/T-suppressor ratio, and occurrence of large granular lymphocytes.

Biography
Wassil Nowicky, Dipl. Ing., Dr. Techn., DDDr. H. C., Director of “Nowicky Pharma” and President of the Ukrainian Anti-Cancer Institute (Vienna, Austria). Has finished his study at the Radiotechnical Faculty of the Technical University of Lviv (Ukraine) with the end of 1955 with graduation to “Diplom Ingenieur” in 1960 which title was nostrificated in Austria in 1975. He became the very first scientist in the development of the anticancer protonic therapy and is the inventor of the preparation against cancer with a selective effect on basis of celandine alkaloids “NSC-631570”. He used the factor that cancer cells are more negatively charged than normal cells and invented the Celandine alkaloid with a positive charge thanks to which it accumulates in cancer cells very fast. Author of over 300 scientific articles dedicated to cancer research. He is a real member of the New York Academy of Sciences, member of the European Union for applied immunology and of the American Association for scientific progress, honorary doctor of the Janka Kupala University in Hrodno, doctor “honoris causa” of the Open international university on complex medicine in Colombo, honorary member of the Austrian Society of a name of Albert Schweizer. He has received the award for merits of the National guild of pharmacists of America, the award of Austrian Society of sanitary, hygiene and public health services and others.

Notes:
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