Radioprotective effects of the anti-cancer preparation NSC631570 (UKRAIN)

When NSC 631570 has been used in the clinic, it was observed that the patients treated with this drug tolerate the concomitant radiotherapy much better. The adverse effects of this aggressive treatment modality were significantly reduced to minimal. This gave reason to study radioprotective properties of NSC 631570 in the \textit{in vitro} and \textit{in vivo} tests. The radioprotective effect of NSC 631570 has been confirmed by the infection models in mice where its effect was superior to the effect of the known radioprotector cysteamine. Compared to other agents, NSC 631570 exerted a strong radioprotective effect similar to such of lymphokinin. These radioprotective properties of NSC 631570 were confirmed in further studies in rats at the Institute of Applied Cell Culture (Munich, Germany). Ukraine normalized the level of nuclear thyroid hormone receptors influenced by short-term whole body gamma-irradiation of rats with 1 Gy, beginning on the first day after administration of the drug. Thus, the authors concluded Ukraine can minimize the consequences of irradiation on the endocrine system of experimental animals. The radioprotective effect of NSC 631570 was also studied and confirmed on \textit{in vitro} models on the human skin fibroblasts HSF1 and HSF2 as well as lung fibroblasts CCD32-LU. Differential effects of NSC 631570 in modulating radiation toxicity of human cancer cell lines and its protective effect in normal human fibroblasts suggest that this agent may be beneficial for clinical radiochemotherapy.

Biography

Wassil Nowicky, 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. 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, 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: