

Presentation

FEATURES OF SENSITIZATION IN — INCREASING EFFICACY OF — RADIOTHERAPY

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Radiation therapy

- One of the components of methods in the complex therapy of malignant neoplasms is the use of ionizing radiation to increase the mortality of cells affected by a malignant tumor
- Task 1-development of drugs that help protect healthy tissues surrounding the tissue affected by cancer;
- 2-task development of drugs that reduce the radiosensitivity of affected tissues.

One of the natural radiosensitizers is Lithium.

- Lithium treatment had a proliferative effect on neutral progenitors, but neuronal integration only occurred after it was discontinued.
- Each of these two approaches proceeds from the need to obtain a positive result, resorting to diametrically opposite ways to achieve it. While the first method is designed to provide the possibility of therapeutic use of increased doses of radiation, the second is aimed at achieving a positive effect when using reduced doses of radiation. In our country, chemosensitization techniques in cancer therapy began to be intensively developed more than 30 years ago as part of the All-Union program "Modifier"

Research schemes

- The experiment was conducted in cooperation with the laboratory of immunobiotechnology vniifbip and the medical radiological research center named after A. F. Tsyba.
- The properties of the synthesized lithium salt with oxyglycine were studied. the experiment was conducted on 85 wistar rats aged 6-8 weeks, divided into five similar groups. The animals were irradiated on the gamma-ray installation "Luch". The radiation dose was 7 Gy.
 - The duration of the experience is 30 days.

The survival of animals after irradiation during the application of oxyglycine lithium

Number of days	Number of live animals after treatment with the drug and irradiation with a dose of 7 Gray					
	Doses of the administered drug, mg/kg of live weight				Control	Intact animals
	120	70	40	30		
1	15	15	15	15	15	15
5	13	13	14	15	13	15
10	9	10	10	11	11	15
15	5	6	5	9	9	15
20	3	4	4	7	8	15
25	0	1	0	6	7	15
30	0	0	0	5	7	15

Conclusion.

Against this backdrop of positive properties of lithium salts oxyglycine can convincingly argue that exhibited specific radiosensitisation properties cannot be considered as a consequence of the drug toxicity and its adverse effects on metabolic processes in the animal organism.