

The Table shows that sulfoguanidine and sulfamethoxy-pyridazine have a radiosensitizing effect in the precipitous decrease of the body weight in the first 5 days only. The survivors quickly recovered their weight.

In contrast with these, the other four sulfanilamides show varying degrees of radioprotective activity. The most effective compound was sulfamethazine (2-sulfanilamido-4,6-dimethylpyrimidine).

As to the mechanism of this radioprotection we can only assert, that a healing of the treated animals through the bacteriostatic action of the sulfanilamides is most unlikely, since the postirradiation administration of sulfanilamides is ineffective [2, 3].

As the sulfanilamides are a new class of radioprotective compounds and practically exempt of toxicity, our data seem to be of importance both in clinical radiotherapy and in theoretical researches. Work is now in progress in our laboratories to clear out the mechanism of radiobiological effects of sulfanilamides.

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