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**DYNAMIC OF MORPHOLOGIC AND
MORPHOMETRIC CHANGES IN ORGANS
OF IMMUNE SYSTEM AT FLUDINAT AND
5-FLUOROURACIL ADMINISTRATION**

The study was performed as a part of research work “Fundamentals of designing and studying new antineoplastic and antimetastatic drugs and their combinations” state registration number (06.12 AMH)

ABSTRACT. Background. Fluorouracil is widely used in clinical practice. This effective preparation has high toxicity. It is well known, that fluorouracil injection leads to pronounced alterative changes in organs and systems, first of all, in bone marrow, and other organs. **Objective.** It was of high interest to investigate the effect of fludinat and fluorouracil on most sensitive organs and systems – bone marrow, spleen, thymus. Morphological study of organs of immune system after a new antitumor substance fludinat administration has been performed. **Methods.** White rats were used in the study after intraperitoneal injection of fludinat and 5 – fluorouracil in LD₅₀. The animals were euthanased on the 1, 3, 7, 14 day after injection. Measurement of spleen structures was applied. **Results.** There were shown the unidirectional changes due to fludinat and 5 – fluorouracil administration, qualitative changes of bone marrow, spleen and thymus as well. Morphological signs of alteration were shown on the first day after injection of both remedies. Pronounced signs of spleen and thymus alteration were shown on the first day after 5 – fluorouracil administration, in contrast to its transport form. The most prominent destructive changes were seen on the third day. The gradual renewal of bone marrow structure after injection of both remedies was shown on the seventh day in two weeks after beginning of the experimental study. **Conclusion.** It was considered that fludinat is less toxic than 5-fluorouracil.

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