EFFECT OF A TETRAHYDROISOQUINOLINE DERIVATIVE ON HEMATOLOGICAL PARAMETERS *IN VIVO*

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At present, the evaluation of the safety and efficacy of newly developed biologically active compounds is one of the most pressing issues in pharmacology and experimental medicine. In particular, studying the effects of newly synthesized compounds on hematological parameters is of great importance for assessing their potential toxicity. Isoquinoline derivatives exhibit a wide range of pharmacological activities; however, their effects on the organism have not yet been sufficiently investigated. Therefore, determining the influence of the isoquinoline derivative TGIX-Cl on the formed elements of blood is considered highly relevant.

The study was carried out in vivo using experimental animals. The animals were divided into three groups: an intact control group; a group treated with 1-(2′-chloro-4′,5′-methylenedioxyphenyl)-6,7-dimethoxy-1,2,3,4-tetrahydroisoquinoline (TGIX-Cl) at a dose of 20 mg/kg; and a comparison group receiving the reference drug drotaverine at a dose of 20 mg/kg. Blood analyses were performed at the beginning of compound administration and on day 31 of the experiment.

The numbers of erythrocytes ($\times 10^6/mm^3$) and leukocytes ($\times 10^3/mm^3$) were determined, and the results were statistically processed and expressed as the mean ± standard error (M ± SE).

According to the obtained results, at the initial stage of the experiment, animals in the TGIX-Cl-treated group exhibited a slight decrease in erythrocyte and leukocyte counts compared with the intact control group. However, these changes remained within physiological limits. By day 31 of the experiment, erythrocyte and leukocyte levels increased and approached those observed in intact animals. Similar hematological dynamics were also recorded in the drotaverine-treated group.

These findings confirm that the TGIX-Cl isoquinoline derivative does not exert a significant adverse effect on the hematological system. The results of the study demonstrate that long-term intraperitoneal administration of the TGIX-Cl compound does not negatively affect the parameters of the formed elements of blood. The stability of erythrocyte and leukocyte counts indicates the relative safety of the compound. The

obtained data allow TGIX-Cl to be considered a promising candidate for further pharmacological investigations.