

CORRECTION OF THE GENETIC EFFECT OF DALAPONA (HERBICIDE) WITH THE HELP OF PLANT EXTRACTS

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In animals of the control group, the level of spontaneous mutation in the bone marrow and testis cells was very low. After a 3-month administration of dalapon in bone marrow cells, the number of chromosome aberrations (2.64%) and PChE with micronuclei (5.65%) increased by 5-6 times compared with the control ones (0.41 and 0.91%, respectively). The number of chromosome mutations increased by 7 times, and in spermatocyte cells - by 1.34%; the number of spermatozoa with abnormal heads increased by 9 times (3.70%) compared with the control (0.17 and 0.50%). A number of changes were noted in the histological preparations of the testicles. Animals treated simultaneously with dalapon daily for 3 months, an aqueous extract of plants, 2-3 times decreased the frequency of mutations caused by dalapon. The most effective in suppressing the mutagenic activity of dalapon were extracts from wheat and rose hips: Chromosome aberration (1.02%) and the number of PChE with micronuclei (2.86%) decreased by 3 times compared with animals that received only dalapon (2.94 and 6.45%). Aqueous extracts of spinach, dandelion, green tea also reduced the mutagenic effects of dalapon by 2 or more times.

Marked rearrangements of chromosomes under the action of dalapon were mainly of the chromatid type. Isolocus terminal deletions, chromatid terminal single deletions, chromatid translocations, microfragments were observed. Isolocus



terminal deletions were both with and without fusion. Microfragments can be considered as microrings. The classical concept of the formation of chromosome rearrangements admits the possibility of the formation of a microring as a single-hit rearrangement in a microloop of a chromosome thread.

