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**ABSTRACT BOOK**

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## COMPARISON OF CYCLOPHOSPHAMIDE, DOXIRUBICIN AND CISPLATIN ACTION ON THE MALE SEXUAL FUNCTION IN EXPERIMENT

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**Introduction.** The male sexual and reproductive function decreasing significantly degrades the life quality, social adaptation of older men and men who underwent chemotherapy. The study of various chemotherapeutic agents effects on male sexual function will allow both to more accurately model diseases in the experiment and to individualize patients` treatment and rehabilitation regimens.

**Aim.** To compare the effect of various chemotherapy agents on male reproductive function in experiment.

**Materials and methods.** 4 groups of male Balb/c mice aged 6 months, weighing  $29.4 \pm 0.5$  g were used: 1 group - control animals, 2, 3 and 4 groups - males treated with cyclophosphamide, doxorubicin and cisplatin, respectively. Animals weight, spermogram, myelogram, behavioral reactions, morphological changes in the liver and kidneys were studied at 1, 4, and 8 weeks after drug administration.

**Results.** The cyclophosphamide application led to weight loss, leukopenia, oligozoospermia at 4 weeks and the complete restoration of all indices by 8 weeks, except the number of spermatozoa. Anxiety increased sharply and interest in the female mice decreased. By week 8, behavior restored to 90% of control, except anxiety.

The doxorubicin application led to complete sterilization, expressed toxic changes in the liver and kidneys. Animal mortality increased. Anxiety of animals a week after the administration of doxorubicin almost doubled; they spent 3 times less time with the female. By week 8, sexual behavior was almost restored, but anxiety increased by 3 times compared with control.

The effect of cisplatin was milder: transient oligozoospermia was observed after 4 weeks, by the 8th week the number of spermatozoa was fully restored. Cisplatin practically did not adversely affect the sexual behavior of males. Anxiety, which increased after the administration of cisplatin, tended to decrease by week 8, in contrast to the results obtained with the administration of doxorubicin and cyclophosphamide.

**Conclusion.** Doxorubicin is the most toxic chemotherapy agent for the male reproductive system.

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