

THE STUDY OF TOXICITY EFFECT OF NEW DRUG FOR TREATMENT OF DISEASES OF PROSTATE

Kolodeznaya T., Alexeyenko A., Shapoval O.N.

National University of Pharmacy, Kharkiv, Ukraine

olana666@mail.ru

Diseases of prostate gland like benign prostatic hyperplasia and chronic prostatitis are among the most important problems in modern urology and andrology. That's why one of the priorities of medicine and pharmacy is improving therapy of these diseases through the creation of new drugs. Considering it was generated combined prostato-protector in the form of suppositories and at this time complex of preclinical studies is holding. Complex of preclinical studies of the new drugs necessarily contains study of chronic toxicity: prolonged exposure of the new drug on functional status of organs and organ systems that allows to evaluate its degree of safety for clinical use and prevent the possible side effects.

So, the aim of this work is studying of prolonged exposure of the new prostato-protector suppositories (NPS) on functional status of organs and organ systems of male rats with its introduction in therapeutic dose 168mg per kg and in dose 1680 mg per kg which is in 10 times bigger than the therapeutic dose during one month. Study was held according to the guidelines by Ministry of Health of Ukraine (Ed. O.V. Stefanov, 2001).

It was found that prolonged rectal introduction of NPS in therapeutic dose 168mg per kg and in dose 1680 mg per kg which is in 10 times bigger than the therapeutic dose during one month doesn't cause negative changes from general trophic processes, peripheral blood, functioning of central nervous system, liver, kidneys and cardiovascular system. But it was significantly relative to control group determined that NPS in both dosages causes increasing of the relative weight of the heart in male rats, decreasing in serum ceruloplasmin's activity, level of total lipids and increasing excretion of urea. Changes of some indicators due to specific pharmacological activity of components of the NPS and in disease could have only positive outcome.

So, the results show that NPS in therapeutic dose is save and promising for further application in industrial production and broad medical practice.