

*Materials of Conferences*

**EXPERIMENTAL ESTIMATION  
OF INSECTOACARICID ACTIVITY  
OF VETERINARY PHARMACEUTICALS  
FOR TREATMENT OF LABORATORY  
RATS' COMPLEX EXOPARASITOSE**

Bukatin M.V., Ovchinnikova O.U.,  
Chernikov M.V., Sendryakova V.N.

*Volgograd state medical university, Volgograd,  
e-mail: buspak76@mail.ru*

The most important link in structure of medico-biological experiment is laboratory animals. Requirements of scientists to quality of laboratory animals, to their standardization on a genotype, maintenance and feeding conditions, testability on micro-flora and parasitic organisms now have essentially increased. Laboratory animals are subject to various diseases. For example, very common situations are exogenous parasitoses, such as trichodectoses and sarcoptoses. Frequently sarcoptoses and trichodectoses meet in association. Despite the many new pharmaceuticals for treatment of this exoparasitoses in the Russian veterinary market, there are no accurate schemes of treatment and dosages for rodents. Summarising the above-stated and considering a wide circulation of sarcoptoses and trichodectoses, it was found expedient to investigate a spectrum of insecticid and acaricid activity of preparations accessible in veterinary drugstores of Volgograd (Russia). It is revealed, that the most presented preparations are «NeoStomosan», «Celandin Sprey», «Leopard», «Frontline Sprey» and «Zoopowder Puldis». Three from these («Leopard», «NeoStomosan», «Zoopowder Puldis») have been chosen for estimation of acaricid and insecticid effects. All preparations are recommended for struggle with parasitic invasions of cats and dogs whereas an exact dosage for small rodents is not revealed.

The experiments were carried out on 120 outbreed sexually mature male rats (190-210 g), according to the international norms and rules of work with vertebrate animals (Strasbourg, 1999). It was confirmed clinically and morphologically that all animals were parasitized with the following: sarcoptes bodies, ears, superciliary arches and expressed diffuse trichodectoses. Animals have been divided into 4 equivalent groups. Animals of the first group were exposed by the «Leopard» spray, the second group – by «Leopard» drops, the third group was processed by «Puldis», and the fourth group – by «NeoStomosan». The degree of parasitic invasion was estimated every day on an original scale by «Estimations of an external condition of laboratory animals» within 6 days.

Our results indicate that the activity degree of the investigated preparations can be distributed as: «Leopard» > «Puldis» > «NeoStomosan», and by

efficiency (the speed of full clearing from parasites) – as: «Puldis» > «Leopard» > «NeoStomosan».

The work is submitted to the International Scientific Conference «Fundamental Research», Dominican republic, 13-24 April 2011, came to the editorial office on 10.02.2011

**PROBLEMS OF ADEQUATE ACCESS  
TO A MOUTH OF LABORATORY  
ANIMALS FOR ORAL CAVITY  
PATHOLOGY MODELING**

Bukatin M.V., Krivitskaya A.N.,  
Ovchinnikova O.U., Chernikov M.V.,  
Timoshenko A.N.

*The Volgograd State Medical University, Volgograd,  
e-mail: buspak76@mail.ru*

Experimental researches are a component of many scientific works in all areas of medicine and biology. Various kinds of dental pathology are studied on biological models, new dental technologies are developed. Morphological features of a structure dentoalveolar system of the basic objects of medical and biologic experiments (mice, rats, porpoises and hamsters) create some difficulties at modeling in experimental dental. Thus, working out of methods of adequate access to a mouth of small laboratory animals for modeling of dental pathologies is represented an actual problem.

The purpose of the present research was the estimation of adequacy of access to a mouth of laboratory rodents and creation of designs allowing solving a problem of difficulties of this access. The ways described in the literature, are widely used at anatomization of laboratory animals mouth, and consist in introduction in a rodent mouth the structures allowing accurately fix it (metal dilators are directly in mouth, behind the top and bottom cutters). These ways are simple – dilators are “legs” of surgical tweezers. However, these techniques are inefficient in a therapy. Clamps of jaws are the metal designs which are directly in a rodent mouth and, thus, being additional obstacle of access to it. This is the first main lack of available techniques. The second lack is a mechanical influence on the oral cavity mucous membrane, creating additional trauma of soft fabrics. And, at last, the third physical and biochemical lack consists in occurrence of process of electroplating process in an animal mouth. We had been developed an original design, with the account morphofunctional features of rodents' maxillofacial area which pluses are: an arrangement of clamps of jaws out of an animal oral cavity; clamps are made of a soft material.

Thus, results of our work were technique working out and the design creation, which efficiency in experimental conditions consists in al-