RESEARCH OF SORBENT ON BASIS OF SILOX: DETERMINATION OF TOXICITY PARAMETERS

I. Ya. Kotsyumbas, I. P. Patereha, M. I. Zhyla, O. S. Kysciv, A. S. Kabanec

State Scientific Research Control Institute of Veterinary Medicinal Products and Fodder Additives
11, Donetska str., Lviv, 79019, Ukraine

The article presents the results of studying the toxicity of the drug based on sodium dioxide. It was established that the drug "Atoxil VP" is a low-toxic substance - Grade 4. DL50 for its intra-gastric administration to laboratory animals (white rats) is greater than 5000 mg / kg. "Atoxil VP" for 28-day administration of white rats, regardless of dose, had no effect on biochemical and hematological parameters. The drug "Atoxil VP" for the introduction of laboratory animals in the subacute study did not cause morphological changes in the internal organs.

Mycotoxicosis is a group of non-contagious diseases of farm animals that arise as a result of eating feed contaminated with toxic fungi containing products of their vital functions - mycotoxins.

For treatment of mycotoxicosis in animals Ltd. "Orisil-farm" proposed adsorbent based on silicon dioxide high-disperse - "Atoxil VP".

Atosil VP - enterosorbent with pronounced sorption properties, reveals detoxification, antimicrobial and wound healing effect. Adsorbs from the digestive tract and removes endogenous and exogenous toxic substances of various origin from the body, including food and bacterial allergens, microbial endotoxins and other toxic substances, toxic products formed during the decay of proteins in the intestine.

One of the first phases of the pharmacological study of veterinary drugs is the determination of toxicity, therefore the purpose of our work was to study adsorbent based on silicon dioxide "Atoxil VP" in accordance with the methodological recommendations "Toxicological control of new means of animal protection" (1997), "Preclinical studies of veterinary medicinal products (2006), Preclinical Research of Medicines (2001), OECD Test No. 423, Acute Oral Toxicity, Acute Toxic Class Method.

As a result of the research, it was found that after administration of the drug at doses of 50, 500 and 5000 mg / kg, all animals remained alive. Changes in the clinical status of animals in experimental groups were not observed.

According to OECD No. 423, in terms of determining the acute toxicity of the drug. It was found that after administration of the drug at doses of 2000 and 5000 mg / kg all animals remained alive. Changes in the clinical status of animals in experimental groups were not observed.

The drug "Atoxil VP" is a low-toxic substance - Grade 4. LD50 for its intragastric administration to laboratory animals (white rats) is greater than 5000 mg / kg.

In the study of morphological parameters of blood in rats after oral administration of Atoxil VP in different doses, no probable changes in hematological and biochemical parameters have been established. The drug Atoxil VP for 28 daily administration to rats, regardless of dose, had no effect on biochemical and hematological parameters and did not cause morphological changes in the internal organs.

Keywords: ACUTE TOXICITY, SUB-ACUTE TOXICITY, MYCOTOXICOSIS, FEED ADDITIVE, LABORATORY ANIMALS.