STUDY OF DRUG TOXICITY KOLISTOVET

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Veterinary drug "Kolistovet" active substance is colistin sulphate which is a peptide antibiotic group of polymyxins with bactericidal action against Gram-negative bacteria (*Escherichia coli, Pseudomonas aeruginosa, Shighella spp., Salmonella spp., Actinobacillus spp., Bordetella spp.*), which is used for the prevention and treatment of infectious enteritis in poultry and livestock. The action of antibiotics is provided by fastening the molecule of colistin sulfate in the phosphate group of phospholipids and breaking the lipopolysaccharides of the cell membrane of microorganisms.

Colistin concentrates in the digestive tract, therefore, it retains its effect in it, even in the presence of food and digestive enzymes.

The task of this work was to determine the acute and subacute the toxicity of the drug "Kolistovet" in laboratory animals.

Determination of the acute toxicity of the drug was determined by the degree of toxicity (the magnitude of toxic doses) and the definition of the indicative dose (concentration) for the subacute experiment.

Parameters of acute toxicity of the drug "Kolistovet" were studied on 42 white mice of 2-3 months old, weighing 19-22 g and 42 white rats, 2-3 months old, weight

180-200 g. The drug was administration intra-gastric once, pre-dissolving in water.

Subacute toxicity was studied in 18 white rats weighing 180-200 g. Three identical in number and weight of the group were formed, each of 6 rats, and the group of animals was controlling. They were administration with water. Animals of the other two groups were given Kolistovet in doses: Group II - Therapeutic - 10 mg / kg body weight and Group III — 10-fold therapeutic - 100 mg / kg body weight. In this experiment, "Kolistovet" was administered to rats for 14 days.

In conducting an experiment to study subacute toxicity of death of experimental animals not established, but in all the rats of two experimental groups, the live weight of the body decreases with a possible increase in the weight factors of the kidneys.

In experimental animals, changes from the morphological parameters of blood, in the long term the introduction of the drug was not detected.

Thus we can draw conclusions:

1. The "Kolistovet" drug belongs to the 3rd class of toxicity, that is to moderate toxic substances. LD50 for its intra-gastric administration to white rats (calculation by G.Kerber's method) is 1833 mg / kg and for white mice 2000 mg / kg.

2. Administration of white rats, therapeutic and 10-fold therapeutic dose of this drug leads to a sharp decrease in muscle mass and renal dysfunction.

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