STUDYING THE LEVEL OF TOXICITY OF THE DRUG "PRIMASIN"

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The modern market of pharmaceuticals offers a wide range of drugs for the prevention and treatment of mastitis. One of the remedies for the treatment of mastitis in cows may be Primastin. The active substances of the drug are antibiotics cefalexin monohydrate and gentamicin sulfate, as well as prednisolone. Cefalexin monohydrate is cephalosporin of the first generation, it has antimicrobial effect on the main pathogens of the mastitis. He manifests his effect in relation to *Staphylococcus aureus, streptococcus, E. coli. Gentamicin is an aminoglycoside*. It is effective against gram-positive and many gram-negative bacteria (including *zygomatic sticks, proteins, E. coli, staphylococci, salmonella, etc.*). Gentamicin is slightly adsorbed by the tissues of the udder and excreted with milk. Prednisolone has anti-inflammatory effect, reduces inflammation and swelling of the tissues of the udder. Anti-inflammatory effect is due mainly stabilize cell membranes, inhibition of phospholipase A2 and hyaluronidase, the release of arachidonic acid from the phospholipids of cell membranes (with a reduction in the products of its metabolism - prostaglandins, thromboxane and leukotrienes) and inhibition of cell division and their degranulation (release of histamine, serotonin and bradykinin), synthesis of platelet activation factor and connective tissue proliferation.

In view of the wide range of metabolic effects in the body of animals, the components of the drug-antibiotics and the hormone considered expedient to a deeper study of toxicological studies of the anti-mastitic agent.

The study of the acute toxicity of the drug by the degree of toxicity (the magnitude of toxic doses and indicative dose (concentration) was carried out on white mice and white rats.The drug was administration intragastrically, once. To determine the toxicity of the drug "Primastin" for white mice and rats, doses of 1000, 3000 and 5000 mg / kg of body weight of animals, a dose of 5000 mg / kg was re-administered in duplicate animals, and after administration of the drug, 14 days of laboratory animals were observed. the administration of the drug at doses of 1,000, 3,000 and 5,000 mg / kg all the animals remained alive.The short-term inhibition of

laboratory animals given a dose of 5000 mg / kg was due to the **admission** to the body of white mice and white rats of a large amount of the drug. The preparation of changes in the clinical condition of animals in experimental groups was not observed, and the death of animals was not detected. Thus, the LD50 drug "Primaustin" is greater than 5000 mg / kg, the drug belongs to the IV class toxicity (low toxicity substances)

The study of toxicity of the drug "Primastin" in a subacute study was carried out on white rats. Animals and experimental groups introduced "Primastin" in therapeutic doses, and the second group of experimental group -10-fold therapeutic dose . In the subacute study, Primastin was administration to rats for 14 days. Animal deaths are not registered. On the 14th day of the experiment in two experimental groups, a significant increase in the weight of the liver and a decrease in the mass of animals were detected, and in the 2nd experimental group (10-fold therapeutic dose), a significant increase in the mass of the two kidneys, the heart and the decrease in the mass of the spleen were revealed.

Hematologic studies have revealed in animals of both experimental groups the inhibition of protein synthesis, the intensification of catabolism due to the content of glucocorticoids in particular, prednisolone with long-term administration. This is manifested by weight loss and atrophy of the muscles taken in animal experiments. Glucocorticoids cause leukopenia, but stimulate the production of erythrocytes as evidenced by an increase in hemoglobin and hematocrit in the blood of experimental animals. An increase in the dose of Primastin 10-fold therapeutic dose leads to an increase in the blood of rats in the total protein and activity of AlAt.

In general, we can assume that the anti-mastitis drug "Primastin" due to increased catabolic processes, exchange of mineral substances, water allocation, weight loss, able to exhibit anti-mastitis.

Keywords: LABORATORY RATS, DRUG OF "PRIMASTYN", TOXICITY, HAEMATOLOGICAL, IMMUNOLOGICAL AND BIOCHEMICAL INDEXES.