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MECHANISMS AND TYPES OF TOXIC EFFECTS OF PESTICIDES ON THE ANIMAL BODY

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Abstract
The article presents an overview of the current widespread use of pesticides in agricultural enterprises and other veterinary institutions, as well as measures to study their toxic effects on the body of animals and its prevention.

Keywords: LD (lethal dose) pesticide, neurotrope, choleinesterase, atropine sulfate.

Introduction

Currently, global pesticide consumption, driven by their widespread use throughout the development of civilization, amounts to 1.25 million tons. On average, 200-300 grams of pesticides are used per gram of soil. The implementation of measures aimed at the safe use of modern pesticides in animal husbandry and veterinary medicine makes it possible to achieve the production of environmentally friendly food products.

Ecologically clean food production can be achieved by implementing measures aimed at the safe use of modern pesticides in animal husbandry and veterinary medicine. However, today its use without knowledge of its pharmacological components has led to the poisoning of many animals and people.

There are many types of pesticides, and they are classified differently depending on their use (insecticides - against insects, fungicides - against fungal diseases of plants, defoliants - against falling leaves of plants, herbicides - against weeds, bactericides - against bacteria, acaricides - against worms, zoocides - against rodents, oocytes - against larvae, and worms are the most common, in toxicological studies, mainly clinical, laboratory blood tests, experimental (biotests), physicochemical chromatography, spectrophotometry, titrimetry, etc.

It is known that when teaching the scientific foundations of environmental protection and the rational use of natural resources, it is necessary, first of all, to study their essence, the structural aspects of each equipment and preparations used, as well as to reduce the harmful effects on the human and animal body. Today, many farms widely use organophosphorus compounds, which have a strong toxic effect on humans and all warm-blooded animals. Therefore, it is extremely important to understand the need for their rational use and study of the mechanisms of toxic action in accordance with the standards. Pesticides are widely used in agriculture and public health to control pests. However, improper handling or excessive exposure can lead to acute or chronic poisoning in humans and animals. Laboratory diagnosis plays a crucial role in the identification, confirmation, and management of pesticide exposure. Types of Pesticides Relevant to Laboratory Diagnosis. Pesticides are classified according to their chemical nature and biological action. The

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most commonly analyzed groups include. Types of Pesticides Relevant to Laboratory Diagnosis. Pesticides are classified according to their chemical nature and biological action.

The most commonly analyzed groups include: Organophosphates, carbamates, organochlorines, pyrethroids, herbicides and fungicides

Each group requires specific laboratory methods due to differences in metabolism and toxicity mechanisms.

Laboratory diagnosis is an essential component in the detection and management of pesticide poisoning, the use of modern analytical techniques increases diagnostic accuracy and contributes to effective prevention and treatment strategies.

In the Toxicology and Therapy Laboratory, experiments were carried out on 9 rabbits using these "entopic" pyrethroids in three different ways, and the lethal dose of herpes was determined. Entopix Superherpicity is a chemical product effective for killing annual weeds growing in wheat fields. It is a concentrated emulsion, has a mild effect on humans and animals, and is classified as a Level III hazard, meaning it does not have a cumulative effect.

Lethal doses (LD50) were used in the experiments. For this, the rabbits were divided into 3 groups (3 animals each). Group 1 received grass sprinkled with Entopic Super Herpetic; Group 2 was kept in separate rooms, sprayed in cages, and received a normal grass (alfalfa) diet; Group 3 received an orally administered LD50 (0.05 ml) of Entopic Super Herpetic. All rabbits in the experiment were under control. All rabbits were fed Herpicit using an aerogen and an aerosol. One liter of emulsion contains 240 IU, the dilution ratio is 1 liter per 0.3 ml.

Group 1 rabbits were given ENTOPIK herpes with their food, after which the LD50 toxicity level was determined for all rabbits. While 1 liter of ENTOPIK herpes has a toxicity of 240 g/ml, diluting 0.3 liters of ENTOPIK emulsion in 1 liter of water yields a toxicity of 0.055 g per milliliter (0.055 g/ml), a solution containing 72 g of active substance in 1.3 l was sprayed on 0.08 kg of alfalfa using 0.5 l of this solution for 42 days.

If the volume of the solution for one day is 12 ml, then the amount of active substance in it is 0,66 g.

Due to the delicate nature of rabbits, they consume 50% of the feed, and the toxin content in it is approximately 50%. Therefore, the LD50 (M) toxicity level for rabbits poisoned with feed, weighing an average of 800 g, is 0.413 g / kg at the highest calculation and 0.017 ml / kg at the lowest calculation.

In conclusion, taking into account the sensitivity of rabbits and their lower resistance to the external environment compared to rats, the value was 0.017 ml / kg.

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