INFLUENCE ON THE AUTONOMIC NERVOUS SYSTEM IN CATTLE CONSTITUENT ELEMENTS

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Annotation. *The scientific article extensively discusses the elements affecting the autonomic nervous system in cattle. The methods of preventing and treating several diseases occurring in cattle are presented with scientific evidence.*

Key concepts: *Formaldigides, test tubes, neuroliptic elements, medicinal substances, organophosphorus reagents, central nervous system, afferent nervous system, saline solutions, chemical preparations.*

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Substances that stimulate the activity of the autonomic nervous system in cattle can be conditionally divided into two large groups. The first group of preparations exhibits a characteristic multifaceted effect on neuronal metabolism and the state of glial tissues, ultimately causing changes in a large part of brain activity.

The second group involves the limited participation of the preparations in specific reflex centers (vascular, respiratory, thermoregulatory, etc.). Their influence is directed towards the environment where synapses are located between neurons. At this point, the nature of the mediator and the structure of receptors, where the nerve fibers of the membrane synapses are located, differ.

When medications are used, changes in the body begin to occur gradually. These changes include changes in the chemical composition of brain tissue that come into contact with medications and their ability to overcome histogematic barriers

By changing the synthesis state, accumulate a neurotransmitter in the synaptic structure of the synapses. Activate the release of the neurotransmitter from the synaptic space. Attach the neurotransmitter itself or its hydrolyzed product in the synaptic space with enzymes and recovered synaptic fibers. Create a response state between the synaptic membrane and protein receptors to stimuli.

For medicinal preparations of this group, differing in chemical structure, preparation, action, and use, a common pharmacological feature is the active effect on various centers of the central nervous system. Such an effect stimulates and excites the activity of the central nervous system, activating and stimulating passive centers. Moreover, such stimulators have the ability to quickly restore the activity of the central nervous system, even restoring the life of a dying organism.

In pharmacological practice, the following groups of these medicinal products are used: caffeine group, camphor group, carasol and cordiamine, strychnine group, respiratory center stimulators, substances that increase the body’s general tone. For example, caffeine activates the cerebral cortex centers to varying degrees, while camphor and carazol groups activate the medulla oblongata centers, and strychnine groups activate the spinal cord centers to varying degrees.

Caffeine – Coffeinum. The alkaloid content in tea tree leaves and coffee tree fruit is 2-3%.

It can also be obtained artificially. Discovered by Runge in 1819 White needle-like, odorless, spicy powder. Effect The autonomic nervous system has a complex mechanism of action.

It has a wide range of effects on many organs and systems. It dissolves slowly in cold water (1:60), poorly in hot water (1:2), and poorly in alcohol (1:50). It is at a temperature of 1000 C.

By strongly affecting the centers of the cerebral cortex, it activates its psychosensory and psychomotor functions, directly affecting brain cells, and enhancing the excitation process in the cerebral cortex. At high doses, the cerebral cortex becomes highly agitated, leading to restlessness and insomnia.

Local anesthetic agents Anesthesia (from the Greek *an* meaning “in vain,” *aesthesis* meaning “to feel”) is the loss or cessation of all types of sensation. Sensory loss can be general or local. General anesthesia is characterized by impaired central nervous system function, while local anesthesia is characterized by the cessation of impulses coming from receptors to the central nervous system. Tools that induce the loss of local sensation are called local anesthetics.

They selectively affect the area of the nerve in contact with it and are used to block the excitability of afferent nerves. Only 187.

All local anesthetics are esters with a complex chemical structure and aromatic acids.

These substances are used in surgical operations and in the treatment of various diseases.

The mechanism of action of these substances is not fully understood. However, it has been established that under the influence of these drugs, the conduction of excitation along sensory fibers is blocked, insignificant protein denaturation in the nerves, changes in conductivity, etc. are observed. These changes in the nerves indicate that anesthesia is associated with changes in the conductivity of the membrane of nerve fibers. Furthermore, these medications inhibit nerve tissue respiration, resulting in a decrease in its excitability.

Currently, these substances are used in various ways: field, conductive, filtration, spinal, intraosseous, and intravascular blocks. It’s important to remember that these substances are toxic to animals in large doses, so they should be used in precise doses.

1. Cocoa hydrochloride is a white powder with a bitter taste.

Cocaine also has a resorptive effect, meaning it strongly affects the central nervous system.

When some parts are stimulated, others are suppressed. Application: A 2-4% solution of cocaine is used in ophthalmology, for anesthesia of the mouth and nose (5-10%), and for foot strabismus. Novokaine is a white crystalline powder, readily soluble in water. Its effect is to paralyze sensitive nerve endings and fibers upon contact and induce anesthesia. It has low toxicity, does not constrict blood vessels, does not rub against the skin, and rubs against mucous membranes very gently. It acts in place for 30-60 minutes and dissolves.

REFERENCES

1. Sokolov V.D. "Pharmacology" St. Petersburg 2010
2. Azizova S.S. "Pharmacology" textbook. Tashkent, 2000
3. Farmonov N.O., Salimov Yu. "Methodological Guide for Practical and Laboratory Classes in Pharmacology" Samarkand, 2007.

4. Klyuev M.A. et al. Medicines used in medicine, Tashkent, 1995.
5. Mahkamov S.N. et al. "Technology of Finished Medicines" Tashkent 1996
6. Mashkovskiy M.D. "Medicinal Products," 1998. Journal "Zooveterinary," Tashkent.
7. “Zooveterinariya” journal, Tashkent.