ZOOLOGY AND VETERINARY MEDICINE

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PROBLEMS OF ENDOCRINOLOGY OF REPRODUCTION OF FARM ANIMALS

The reproduction function of farm animals is regulated by a complex hierarchical neurohumoral system consisting of 4 stages (hypothalamus, pituitary gland, ovaries, uterus). Currently, a number of techniques have been developed that allow a certain way to influence various levels of the neurohumoral system for regulating the reproduction function of farm animals. The use of Progestogens allows you to regulate the flow of LH into the blood and thereby significantly lengthen the duration of the sexual cycle. The use of derivatives of metallura delaying the production and secretion of pituitary gonadotropins. The use of exogenous gonadotropins increases the level of gonadotropins in the body of farm animals and thereby regulates the number of maturing follicles and their subsequent ovulation. The introduction of estrogens can significantly affect both the nerve centers and the hypothalamus [2].

Thus, zootechnical endocrinology has a whole set of techniques that can be used to influence individual parts of the neurohumoral system for regulating the reproduction function of farm animals.

In recent years, the greatest progress in this direction has been achieved in pig breeding, when we can already talk about the introduction of biotechnical methods for influencing the reproduction function in pork production technology (stimulation of hunting and ovulation in the main sows, synchronization of hunting in repair uterus). These methods are organically linked to the technological regime, are predicted and set the rhythm of production.

In the field of directed regulation of the reproduction function of farm animals, there are still many complex and unresolved issues. These include issues related to the impact on the Central nervous system in order to change the hormonal status of the body through the use of a number of pharmacological and biologically active substances (novocaine, vitamins PP, C, B and B6) [1]. It is known that the old cortex (archocortex) and the amygdala (archistiatum) have a significant inhibitory effect on the sexual behavior of animals. The destruction of these brain formations causes the phenomenon of hypersexuality [3]. Unfortunately, there is very little data on this issue regarding farm animals, although it is already known that when large groups of heifers are kept, their sexual activity significantly decreases.

Other endocrine glands, in particular the epiphysis, which secretes antigonadotropic hormone into the blood, have a great influence on the sexual function of animals. It is established that the epiphysis plays an important role as a regulator of biological rhythms, including the sexual cycle. It is likely that seasonal anestria in sheep is associated with increased epiphysis function and increased release of an antigonadotropic factor into the blood, and this ultimately causes inhibition of ovarian function.

Zootechnical endocrinology faces complex tasks related to the study of the features of neurohumoral regulation of reproductive function in different types of farm animals, which is an important link in the development of measures to intensify various branches of animal husbandry.

References:

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