METHODS OF HORMONAL CORRECTION OF SEXUAL FUNCTION IN KARAKUL SHEEP

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ABSTRACT

There are studies, data on the reproduction of seep are described, the methods of hormonal function of the ovaries regulation of the reproductive function of the ovaries and the elimination of infertility in animals are outlined. The methods of using prostaglandin in veterinary practice are outlined as well.

Key words: Follicles, granulosa, atrophy, hypofunction, desquamate, reduction, luteum, gonadotropin, astutely, clatraprostin preparation of complex, ovulation, atresia, dose, infertility.

INTRODUCTION

A prerequisite for the development of agriculture is the transition to intensive methods of animal husbandry with maximum use of the reproductive potential of the breeding stock of farm animals, including sheep.

In Central Asia, including Uzbekistan, the most common Karakul sheep farming, which, in addition to meat, produces high-value Karakul and karakulchu. However, the reproductive potential of these animals is not used enough. This is evidenced by the presence of infertility and maleness in sheep, insufficient production of lambs and valuable fur.

The main reasons for this situation, in addition to creating conditions that meet the evolutionarily developed physiological needs of the body, are insufficient knowledge of the genetic potentials of intensive use of productive and reproductive properties of the body, as well as the lack of scientifically based methods for correcting the reproductive function of sheep, which would allow the most effective use of the biological characteristics of animals and prevent their infertility.

MATERIAL AND METHOD OF RESEARCH

The work was performed in 2016-2019 at the Department "Internal non-contagious diseases and obstetrics" Samarkand institute of veterinary medicine.

Research and production experiments were conducted in «TIM-Agronchorvadorlari»: LLC in Nurabad district of the Samarkand region of the Republic of Uzbekistan.

Under the experiment there were 228 sheep of the Karakul breed at the age of 3-5 years, body weight of 30-40 kg, average fatness. Farms are safe for infectious and invasive diseases.

In the farm where scientific and production experiments were conducted, it is customary to keep sheep in sheepcote, in which the animals are kept loose, in groups on walking and feeding grounds equipped with shady canopies, group feeders and drinkers. The content of pasture, stable. Active exercise was not used. Feeding, water supply and manure cleaning are not mechanized on the farm.

There is 1 point of artificial insemination. There is a room for producers and testers, an indoor arena with machines for insemination, a room for on-duty staff and checking the quality of sperm, a room for feed, harness and equipment, a large courtyard with a cooking (paddock) for the diagnosis of hunting, pregnancy and infertility by reflexological method, a veterinary first aid kit.

In experiments on testing estufalan in doses of 0.25 ml (62, 5 mcg), 0.5 ml (125 mcg), 1 ml (250 mcg) and 2 ml (500 mcg), 60 sheep were included, which were distributed into 5 identical groups. The drug was administered to 50 animals intramuscularly against the background of a functioning yellow body. Two animals of each group served as controls, they did not use drugs.

To study the dynamics of progesterone and estradiol – 17 beta in animals of each group, blood was taken before administration and 12, 24, 48, 72 and 96 hours after administration of various doses of the above drug.

In experiments on testing clatraprostin in doses of 0, 25 ml (12, mcg), 0.5 (25 mcg) and 2 ml (100), 60 sheep were included, which were distributed into 5 groups. The drug was administered to 50 animals intramuscularly based on the active substance (cloprostenol) in 1 ml of 50 mcg. Two animals in each group served as a control, the drug was not applied to them.

In experiments to determine the optimal doses and clatraprostinfor synchronization of sexual hunting to organize touring lambing we and testing alone or in combination with gonadotropin FLC (gravogormonum) for the treatment of infertility were included 70 ewes, which were divided into 7 groups of 10 animals each. Sheep 1 group were injected astutely at a dose of 0.5 ml(125 µg of active principle), 2 groups were injected intramuscularly clatraprostin at a dose of 0.5 ml (25 µg), 3 groups of ewes were used, one of gravogormonum a dose of 1000 M. E., 4 groups of animals were injected subcutaneously in gravogormonum at a dose of 1000 M. E. and intramuscular – clatraprostin, at a dose of 0.5 ml sheep 5 group used graphogame at a dose of 750 M. E. and clatraprostin at a dose of 0.5 ml, 6 the group of ewes injected gravogormonumat a dose of 500 M. E. and clatraprostin at a dose of 0.5 ml. of 7th group of animals the drugs are not introduced, they served as a control.

The experimental animals were constantly monitored with the detection of phenomena of the stage of excitation of the sexual cycle.

In order to study the dynamics of macroscopic changes in the ovaries, selective animal slaughter was performed 12, 24, 48, 72 and 96 hours after administration of these drugs. Macroscopic examination established the size of the ovaries, determined the number and size of follicles, yellow bodies, cysts and corpus atreticum.

In the study of sheep, special attention was paid to the state of the genitals. The genitals were examined by external examination and vaginoscopy. The external study took into account the state of the pelvic ligaments, the genital fissure, and the skin of the vulva.

The basis for the use of the tested drugs in these doses was the positive results obtained in experimental studies. This took into account the effectiveness of insemination, the number of days of infertility and the economic efficiency of the work performed.

RESEARCH RESULT

We found that as a result of the development of hyperplastic and hypertrophic processes in the connective tissue membrane, it increases in volume and becomes the only active structure that can provide the formation of the yellow body after ovulation of the follicle.

Our results showed that sexual hunting after the use of prostaglandins alone or in complex with gravogormonum came within 48-72 hours, and after the introduction of one gravogormonum on the 4-6 day, 100% effect was achieved from integrated application of PGF-2 alpha (ectoplan, clatraprostin) at a dose of 0.5 ml and gravogormonum the dose of 500 M. E.

Satisfactory results (80%) of sheep insemination were obtained after complex application of gravogormonum at a dose of 750 m. e. and PGF-2 alpha (estufalan, clatraprostin) at a dose of 0.5 ml

A relatively low percentage (60%) of sheep entering the hunt was observed after injection of gravogormonum at a dose of 1000 m.l. and PGF-2 alpha (estufalan, clatraprostin) at a dose of 0.5 ml, which is associated with luteinization of unripe follicles due to the combined endogenous and exogenous action of large doses of gonadotropin.

This is confirmed by macroscopic and histological examination of the ovaries. The ovarian sections showed pre-ovulatory follicles with proliferating tecal tissue and reduced granulosa and ovum in a state of

dystrophy. The introduction of one gravogormonum at a dose of 1000 m. e. also gave a low effect (50%), which is associated with the use of the drug in 50% of sheep against the background of functioning yellow bodies. In the other sheep, the ovaries were in a state of hypofunction.

The most common synchronization of estrus in sheep by ovarian dysfunction is observed in complex use of gravogormonum at a dose of 500 M. E. and PGF-2 alpha (estufalan, clatraprostinat a dose of 0.5 ml (125, 25 µg). The use of prostanoids alone to synchronize sexual hunting is effective in the presence of yellow bodies in the ovaries of sheep. When ovarian hypofunction occurs, the syncing effect of prostaglandins is reduced.

Conclusions. 1. it was Found that follicular-luteogenesis in the ovaries is a single process regulated by the gonadotropic function of the pituitary gland and is carried out by activating trophic and plastic processes in the tectonic tissue, ensuring the growth and maturation of eggs and follicles, their ovulation and the formation of yellow bodies.

2. the Formation of yellow, atretic bodies and luteal cysts is carried out from proliferating cells of the inner tissue of the follicles. Granulosa undergoes desquamation and reduction.

3. to synchronize sexual hunting in the breeding season in sheep of the Karakul breed, estufalan is used at a dose of 125 mcg, and clatraprostin at a dose of 25 mcg or 0.5 ml of each of these drugs. After the introduction of drugs, the arrival of sheep in the hunt is observed in 48-72 hours. At this time, it is necessary to detect sexual hunting in sheep twice, in the morning and in the evening, and inseminate them. If the sheep do not come to the hunt, one of these drugs is administered again in 10-11 days, also in a dose of 0.5 ml, with subsequent detection of sexual hunting and insemination.

4. Barren ewes in condition anaphrodisia, one of prostanoid drugs at a dose of 0.5 ml (estupinan – 125 ml, estufalan, clatraprostin- 25 µg) injected simultaneously with subcutaneous injection of gonadotropin in the dose of 500 M. E. Sex hunting is detected twice a day (morning and evening) with the subsequent insemination of sheep according to existing instructions.

For sheep that do not come to the hunt, PGF-2 alpha is re-administered in 10-11 days at the same dose (0.5 ml), followed by detection and insemination.

REFERENCES

1. Nurmukhamedov B. M., Khaitov R. H. «Биологическиеособенностигенеративнойфункциияичниковиприменениеметодовгормональноерегуляцииполовойфункции», Moscow (October 17-19, 1996) First Russian Congress on pathophysiology. P. 336.
2. Nurmukhamedov B. M., Eshmatov G. H., Yakhyaev B. S. Особенностигормональнойкоррекциивоспроизводительнойфункциияичниковукоз. / / Materials of the international scientific and practical Conference-Problems and prospects of development of perfect reproductive technology, Cryobiology and their role in the intensification of animal husbandry. – Moscow. Dubrovitsy, 24-27 April 2017 P. 416-421.
3. NurmukhamedovB. M. Совершенствование методов гормональной регуляции воспроизводительной функции у коров и овец.Samarkand 2017. Pp. 175-216.
4. NurmukhamedovB. M., EshburievS. B., SidikovB. Синхронизация половой охоты у овец и коз с применение ПГФ-2 альфа и гравогормона// Veterinarymedicine-2018g. # 9. P. 31-32
5. CheremisinovG. A. Закономерности в генеративной функции яичников и гормональные методы повышения плодовитости животных // BulletinofagriculturalSciences, 1986, no. 6

6. Kuldac E., Arendarcik J. The excretion of pituitary qonadotropine in urine of cows during normal and synchronized cycles. Inst. nat. Rech. Argon. Paris