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Morphological Indicators of Sheep Ovary

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Abstract: *The article presents the results of research on the morphological changes of the ovaries of sheep from the newborn period to adulthood. They allow us to conclude that the system of reproductive organs grows intensively during this period, and the increase in the mass of these organs occurs less intensively than the body mass of animals.*

Keywords: *postnatal ontogeny, ovary, growth factor, sheep.*

Introduction

Solving the problems of animal reproduction and knowledge of the development of the reproductive system remains one of the most important problems of biology and is considered to be of great theoretical and practical importance.

As a result of their research, it was found that many pathological changes occur in the uterus of cows after giving birth, and when electroneurostimulation and vibromassage procedures are used to prevent them, the diseases observed in these organs are drastically reduced. The authors recommended that these preventive treatments should be applied to all cows on time.

In scientific studies, it has been proved that when calves live in a state of hypodynamia, negative changes occur in their locomotor organs as well as their reproductive organs. When calves are kept in a state of hypodynamia for a long time, a significant delay in sexual intercourse, destructive changes in the ovaries, swelling of the mucous membrane of the uterus, and a delay in the readiness of other reproductive organs to be born have been noted.

On the basis of hypofunction of the ovary, alimentary factors, i.e. lack of microelements in the diet, violation of the balance between protein, fat and carbohydrates, lack of exercise, violation of preparation of the animal for birth, presence of gynecological diseases delay the involution of the reproductive organs of cows, as a result of which the sexual cycle is disturbed and repeated insemination is not effective.

It has been found that the inflammatory process in the uterus of cows has a negative effect on the pregnancy process, creates unfavorable conditions for the viability of sperm cells and egg cells, and causes the fetus to die. The authors note that repeated insemination does not work in cows with latent chronic endometritis.

In the postpartum period of sheep, intensive involutional changes occur in the uterine wall, which is directed to faster preparation for the next pregnancy. On the 30th day after the birth of the animal, the reproductive organs are completely restored, but the uterus does not return to its initial state by 10-15%. Specific features of the lymphatic system of the urinary and reproductive organs of herbivorous domestic animals were studied, in particular, the functional-structural unit of the lymphatic vessels of the bladder was determined. The authors found that dogs and cats have different lymphatic vessels and regional lymph nodes of the urinary bladder depending on the type and age of the animal. The authors found that

the wall of the lymphatic capillaries of the urinary bladder has a single layer of endothelial cells without a basement membrane, and the wall of the lymphatic postcapillaries of the bladder is morphologically similar to the wall of the lymphatic capillaries. Therefore, it is noted that postcapillaries of lymphatics differ from lymphatic capillaries by the presence of valves.

Primary, or primordial, resting follicles are a first-order oocyte surrounded by a single layer of follicular cells. Secondary, or growing, follicles are first-order oocytes surrounded by two or more layers of follicular cells. At this stage of folliculogenesis, the egg is actively growing and is covered with a transparent membrane. Tertiary, or vesicular, cavitary, Graafian follicles - contain a micro- or macroscopic cavity filled with follicular fluid. Their wall is lined from the inside with multilayered follicular epithelium, from the outside - with internal and external layers of connective tissue membrane (theca internata and externata). The cells of the follicular epithelium form an oviparous tubercle, in the center of which the first-order oocyte is located. Tertiary follicles produce estrogenic hormones.

The hormonal activity of Graafian follicles depends on their degree of maturity. The most endocrine active are preovulatory follicles that have entered the final stage of their development. Their number depends on the fertility of the animals. For example, the number of preovulatory follicles of single-fetus animals (cows and horses) can vary from 1 to 2, while multifetus animals - pigs, dogs - can reach 10 or more.

Ovulation is the process of opening the preovulatory follicle and releasing the egg. In most animals, it is spontaneous and occurs at a strictly fixed time in relation to the beginning or end of sexual estrus. In some animals - cats, rabbits, minks, sables, ferrets, camels, llamas - it is induced and provoked by sexual intercourse. In place of the ovulated follicle, a corpus luteum is formed - an endocrine gland of temporary secretion. Cells of the corpus luteum (luteocytes) produce progesterone - a hormone necessary for maintaining pregnancy. A distinction is made between the corpora lutea of he sexual cycle and pregnancy. The corpus luteum of the sexual cycle functions for 15 -17 days, the corpus luteum of pregnancy - the first 180 days of pregnancy. Secondary or additional corpora lutea of pregnancy - of anovulatory nature are formed and function from the 40 th to the 180 th day of pregnancy.

Object and methods of research. Scientific investigation was carried out on ovaries taken from sheep of 3-day, 3-, 6-, 12-, 18-, and 36-month-old stages, raised on farms of Tailoq district, Samarkand region.

General morphological methods were used to determine ovary, morphometric parameters.

All numerical data obtained as a result of scientific investigations were subjected to mathematical processing according to the method of E.K. Merkureva, and the following indicators were determined.Qўйлар постнатал онтогенезида тухумдоннинг абсолют кўрсаткичларини ўзгариш динамикаси

It was noted that the anatomical dimensions of the female reproductive organs of sheep exhibit specific characteristics and dynamics of change at different stages of postnatal development in connection with their function and physiological processes taking place in them.

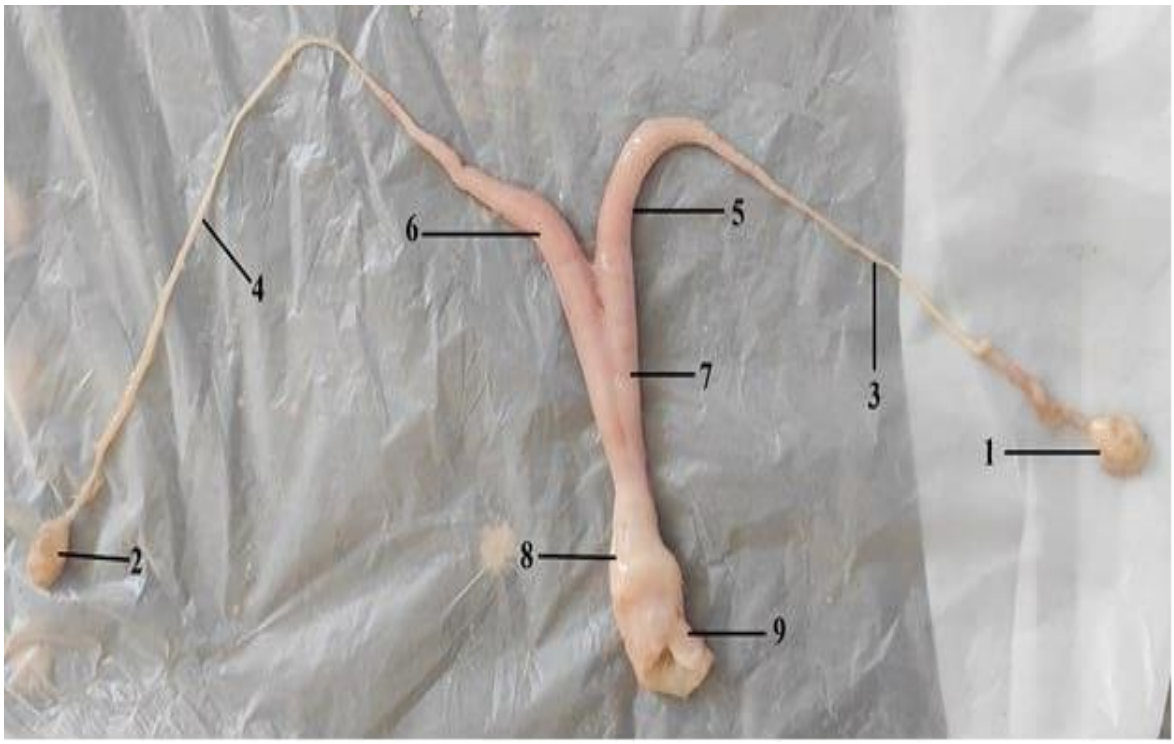
Ovine ovaries develop during different stages of postnatal ontogenesis in relation to their physiological state, the absolute length of the left ovary is 0.9 cm in 3-day-old lambs, up to 0.96 cm in the next 3-month stage of development, and 1.36 cm in the 6-month stage. it was observed that the growth coefficient increased by 1.42 times compared to 3 months, and by 1.66 cm at 12 months, and by 1.22 times compared to the previous stage. This index was 1.77 cm in 18-month-old animals, and 1.98 cm in 36-month-old animals. The coefficient of growth of the absolute index of the length of the left ovary was observed to increase by 2.28 times during the period from 3 days to 36 months of postnatal development.

The absolute index of the length of the right ovary of sheep was equal to 0.59 cm in 3-day-old animals, and in the next 3 months of postnatal development, it increased to 0.64 cm, the coefficient of growth

during this period was 1.08 times. This indicator of the right ovary increases rapidly in the 6-month stage of postnatal ontogeny of animals, it increases by 1.28 cm, and the growth coefficient increases by 2.00 times during this period. This indicator increased to 1.62 cm in 12-month-old animals, and the growth coefficient increased to 1.26 times compared to that of the lower stage. At 18 months of postnatal development, it remained unchanged at 1.62 cm, and at 36 months, it increased insignificantly, i.e. 1.68 cm, and the growth coefficient was 1.04. was observed to be equal to times. It was found that the coefficient of growth of the absolute indicator of the length of the right ovary reaches 2.84 times during the studied stages of postnatal development.

The absolute index of the width of the left ovary of sheep should be 0.39 cm in 3-day-old animals, 0.54 cm in the next 3 months, 1.12 cm in 6 months, 1.29 cm in 12 months, 1.36 cm in 18 months. , and at the age of 36 months, it reached 1.42 cm.

The absolute value of the width of the right ovary was 0.59 cm in 3-day-old lambs, almost unchanged at 3 months (0.63 cm;), 0.86 cm at 6 months, and 1.10 cm at 12 months, and 1, in 18-month-old animals. 18 cm, at 36 months it was observed up to 1.22 cm.



Picture. 1-2 right and left ovaries, 3-4 right and left fallopian tubes, 5-6 right and left uterine horns, 7 uterine body, 8 cervix, 9 vagina.

The conclusion

It was noted that the linear dimensions of the left and right ovaries of sheep increased rapidly from 3 days to 3 months of age, gradually increased until 18 months of age, and showed the highest value at 36 months of age.

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