

SHEEP PSOROPTOSIS

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Annotation: *In agricultural animals, mites in the order Acariformes parasitize scabies and itch-scabies. These diseases are considered to be common arachnoidosis diseases in our Republic, causing great economic damage in livestock farming. Of these, the most common are psoroptosis, sarcoptosis, chorioptosis, demodecosis, otodectosis, knemidocoptosis. Sheep psoroptosis is a disease of arachnoidosis that is accompanied by acute and chronic currents, caused by parasitism of the *Psoroptes ovis canasai* on the skin of animals, the disease is characterized by itchy skin, loose wool, intense weight loss and the death of an animal. The results of the studies showed that ivermectin had a dose of 0.2 mg/kg + 2 ml of Fipronil per subcutaneous administration of sheep once *P. ovis* prevented re-infection with mites for 65-70 days. According to the results of acarological and clinical studies, ivermectin at an external dose of 0.2 mg/kg + 2 ml Fipronil allows you to prevent the psoroptosis of sheep in a single dose under the skin for an average of 65-70 days.*

Key words: *Arthropoda, Arachnoidea, Psoroptes ovis, sheep psoroptosis, sarcoptosis, Psoroptidae, Sarcoptidae, Acariformes, chorioptosis, demodecosis, otodectosis, knemidocoptosis, Sarcoptiformes.*

Introduction. In agricultural animals, mites in the order Acariformes parasitize scabies and itch-scabies. These diseases are considered to be common arachnoidosis diseases in our Republic, causing great economic damage in livestock farming. Of these, the most common are psoroptosis, sarcoptosis, chorioptosis, demodecosis, otodectosis, knemidocoptosis.

Systematics. Scabies and itchy scabies are systematically classified as follows: Arthropoda is a species of arthropod, Arachnoidea is a class of spiders, order Acariformes, order Sarcoptiformes kenja, large family Sarcoptoidea, with two families: Psoroptidae and Sarcoptidae.

Horiptozhi of sheep and goats. It occurs in farms that do not carry out measures against scabies. Dermal mites initially infest the legs, in which areas they initially develop itching, the skin becomes inflamed, the resin forms, and the skin thickens.

The first clinical signs of the disease are observed on the legs, and sometimes they can also spread in other oblasts of the body. A strong itch appears on the affected part, there is a

large amount of depletion of the epidermis shell, and then the skin thickens, folds and becomes covered with resin.

Pathogenesis. Itchy mites cause a severe suppressive disorder in relation to the surface ducts of the skin. They form numerous pathways in the subepidermal layers of the skin in horizontal and ventral directions. Skin damage results in impaired function of most of the body's organs and systems (MNS, RES, cardiovascular system, etc. As a result of injury to a wide area of skin by itchy mites, the animal's body is thickened, its wool is woven and twisted. As a result, the skin's ability to breathe decreases, oxygen deficiency is observed, heat retention decreases. As a result of a decrease in the resistance level of the organism, degenerative processes occur, killing the animal.[1.3]

MAIN PART. Sheep psoroptosis is a disease of arachnosis that is accompanied by acute and chronic currents, caused by parasitism of the *Psoroptes ovis canasai* on the skin of animals, the disease is characterized by itchy skin, loose wool, intense weight loss and the death of an animal.

Structure and biology of the trigger. *Psoroptes ovis*-the body is Oval in shape, the body length is up to 0.8 mm, can be seen with the naked eye, the Khartoum is long, adapted to puncture the epidermis layer of the skin and absorb lymph fluid. Female Canas have segmented sterjenida suckers of the 1st, 2nd, and 4th pairs of legs, with two shields on the 3rd pair of legs. The structure of the male Canes is similar to that of the female canes, the difference being that the suckers on the 4th leg are rudimented. In addition, male opisthomal divisions and two sexual suckers are evident.[2.4]

Cutaneous upper mites enter permanent parasites, that is, they can only develop and reproduce in the body of animals, while in the external environment they live for a much shorter period. Development takes place according to the following stages: egg, larva, protonymph, teleonymph and imago stages. The duration of metamorphosis is different in males and females, slightly different in duration. To the optimal temperature of the external environment, male ticks develop in 14-16 days, and female ticks in 18-20 days. For the development of larvae, a period of 3-6 days is needed in the middle, for protonymphs-3-4 days, for teleonymphs-3-7 and for imago basqichi - 2-3 days.

The firing process takes place in two stages. At first, male Canes are joined by female Canes in the teleonymph stage, and then the teleonymph for the second time after sexual maturity is achieved by pouring the sexual product of male canes into the sexual cavity of female Canes.

Female canines can survive to the 60th day, leaving millions of offspring. In all optimal conditions, where there are enough Canes, external muxit can be stored for up to 65 days, and in pastures in the summer season - only 2 days.

Diagnosis. in a complex way: epizootological data, clinical signs, as well as a sample of scraping are poured on the basis of finding itchy mites. Scraping is done using a scalpel from the center of the wound until blood comes out, it is poured into a solution of paraffin or 10% alkali and examined under a microscope 5-10 minutes later.

Morphology. The body of itchy scabies mites is yellowish-gray-white, oval in shape, not divided into cephalothorax and abdomen, the length of the parasite is 0.2-0.8 mm. Itchy scabies mites in the family Acaridae are the smallest, with a nearly spherical body, resembling

a turtle in shape. The oral organs and legs are short. The outer cover of all scabies mites consists of a soft transverse linear chitin, and some types of mites are covered with hairs, scales and thorns on the dorsal side. At the anterior edge of the body of itchy scabies mites is the oral apparatus - proboscis, which consists of the chelicerae (upper jaws) and the hypostome (lower jaws). The chelicerae are flanked by three-lobed palps (pedipalps). On the abdominal side, nymphs and mature itchy scabies mites have four pairs of relatively short and thick conical five-lobed legs. The digestive tract consists of a short esophagus, stomach (midgut) and short hindgut, ending with an anus on the side of the abdomen at the posterior end of the body, with two pairs of bundles on its sides. The sexual system of females consists of an ovary, an egg passage that opens between the fourth pair of legs with a transverse slit hole intended for laying eggs, and a round hole that is used for copulation. Scabies mites do not have eyes, they breathe the entire surface of the body. **Biology.** In the development of itchy scabies mites, the following stages are distinguished: egg, larva, nymph 1 (protonymph), nymph 2 (teleonymph) and sexually mature individ. Females lay eggs in 3-4 doses. Between clutches, they feed. After laying eggs, the female lives for 2-4 weeks, until the first sexually mature individuals of her offspring appear. Males live for 5-6 weeks. In addition to food, certain humidity and ambient temperature are needed for the normal development of scab mites. Some individuals of itchy scabies can live for a long time in a state of suspended animation. When favorable conditions appear for them, fertilized females begin to feed, and then lay eggs. A large number of offspring that appear after 2-3 weeks causes the scabies to recur.[5.6].

Methods and methods of verification. Laboratory examination. From the chegera of healthy and damaged areas of the skin of the suspected animal, deep scraping is obtained using a scalpel and examined. The investigation is carried out in two ways: the mortal method - in which dead mites or fragments of them are found, and the vital method - in which live motile mites are found.

In initial diagnosis, a mortal method is usually used. The most commonly used of the Mortal methods are the following two methods:

1. The resulting crumb is placed in a watch glass or Petri pan, or transferred to the center of the item glass, poured with sodium or potassium alkali 10% twice as much in size on top and kept for 25-40 minutes to soften and melt the layers in the sample, mixed. In order to speed up the examination, the mixture is heated to 60-70 degrees in an alcohol bottle. It is then taken from ozra and transferred to the glass of the object, covered with a tin mirror (the cover is examined with a small size of a microscope, slightly darkened).

2. Dobichin M.P. method. 1 ml of 10% sodium alkali is taken into the test tube and poured over it from the resulting crumb and slightly heated for 1-2 minutes. Then, after 3-5 minutes, it is filled with a solution of 55%-sugar or 60%-hyposulfite and stored in a quiet place for 5 minutes. After this period, a drop or two is removed from the surface of the sample using a wire loop and transferred to the mirror of the item, the coating is examined microscopically, covering it with a mirror. In this we can find dead mites or their lumps.

The Vital method is not only aimed at finding living mites, it serves to assess the effectiveness of the treatment work carried out by balkim. There are several methods in this.

1. Priselkova D.A. method. The crumb is placed in a laboratory sink or clock mirror, and twice as much kerosene in volume is added to it, and the resulting linings are mixed using a needle. From the prepared material, crushed (crushed) grease is prepared and examined under a microscope. Scabies mites retain their vitality in kerosene for 4 hours.

2. The scraping from the skin is transferred to the watch mirror, placed on it in a large amount of ordinary water eight times in size, and kept in a thermostat for 15 minutes at a temperature of 35-40 degrees. It is then taken from the thermostat and examined on a small lens of the microscope. In heated water, the action of mites is activated.

3. The resulting crumb is placed in a laboratory sink, the top is closed and turned over and stored in a heat source (up to 45 degrees). After 5-10 minutes, the skin from the resin begins to peel off the top and skin, and after 12-15 minutes, itchy mites begin to come out. The laboratory will be examined under a microscope or with the help of flakes, taking the cap of the tabletop.

4. Animals suspected of scabies, the new scrape obtained from the van is transferred to black paper and heated from the bottom (up to 35 degrees). After 3-5 minutes, the Canes move out of the hooks on the rim. In doing so, we can see the motile mites with the naked eye.

We should be able to distinguish scabies and itchy scabies from trichophytia, eczema and dermatitis.

Clinical signs. The incubation period is 14-90 days. With psoroptosis, lesions appear on thick hairy areas: neck, back and sacrum, and then the process spreads to the sides and shoulders. In sick sheep, red spots and nodules can be found during clinical examination and palpation. Thickened skin blisters, pustules, crusts, scabs, cracks and folds. Wool in sheep is tangled and easily pulled out. In some areas, shelled wool fragments are separated from the sheep. In the future, these places will become bald. As a result of severe itching and anxiety, sick animals eat food poorly and begin to lose weight. With a long developed process, a large surface of the skin is affected, fatigue appears as a result of a violation of metabolism in a sick sheep. Sometimes sheep die from psoroptosis. In goats, psoroptosis is less common than in sheep. In goats, mainly the ears are damaged. In the ears, shells accumulate, fill the ear canal, in the form of a cork and a large number of mites at different stages of development. In goats, a weeping surface is formed under the shell. Otitis develops when the pathogen is complicated by microflora. Often in goats, veterinarians should simultaneously diagnose psoroptosis and acarosis.

The object of the strike is a sheep on a farm specializing in red sheep farming in the Fourkol District of the Republic of Karakalpakstan.

The subject of tattooing. Scabies and itchy scabies in sheep can be found in the epizootology of scabies, species composition of the causative agent, distribution, morphology, degree of infestation, study of clinical, patanotomic changes in sheep's organism, and test new drugs.

Methods of tattooing. Laboratory examination. the mortal method and the vital method are commonly used in the initial diagnosis of the mortal method.

Results and discussion. The results of the studies showed that ivermectin had a dose of 0.2 mg/kg + 2 ml of Fipronil per subcutaneous administration of sheep once *P. ovis* prevented re-

infection with mites for 65-70 days. In acarological studies carried out 12 days after the introduction of test drugs, the first and second group of sheep had a dead *P* in the adult stage. ovis mites and live larvae have been found. In the sheep of these groups, itching stopped and there were practically no scratches, the inflammatory process on the skin was at the stage of weakening. In the third group of sheep, *P.* live larvae and adults of ovis ticks have been found; recorded severe itching, scratching and hair loss from affected areas of the skin. In studies carried out 30 and 40 days after the introduction of test drugs, the first group of sheep had a dead *P* in the adult stage. ovis mites have been found, no living larvae have been found. The second group of sheep recorded itching, but there were no scratches on the affected areas of the skin. In the third group of sheep, *P.* live larvae and adults of ovis ticks have been recorded; noted severe itching, scratches and hair loss from the affected areas. In studies carried out 50 days after the introduction of test drugs, adult and tick larvae were not found in the first group of sheep, as in previous studies. Sheep of the second group recorded itching and scratching in the affected areas. The third group of sheep has live larvae and adults of ticks; recorded severe itching, scratches and hair loss from the affected areas. 60 days after the introduction of the test drugs, adult and tick larvae were not found in the sheep of the first group, but although no injuries were detected, clinical signs of severe itching and psoroptosis were noted. *P.* adults and live larvae of ovis have been recorded in the second group of sheep. In the third group of sheep, *P.* many larvae and adults of ovis ticks have been found. In sheep of this group, severe itching, irritation with hair loss from the affected areas of the skin was noted. According to the results of shearing carried out on 65-70 days after the introduction of the drugs, a small number of injuries measuring 2-5 cm were found in the sheep of the first group. The infection occurred after about 65-70 days. Administration of ivermectin under the skin once in a dose of 0.2. The second group of sheep had a large number of skin lesions measuring 5-10 cm. The infection occurred approximately 37-40 days after Ivermectin administration. The third group of sheep has a generalized form of scabies. Thus, in the acarological examination of sheep, *P.* adults and larvae of *Ovis* have been recorded in all groups.

Conclusion. Animal owners to prevent scabies mites from entering sheep (goat) herds:

1. According to the results of acarological and clinical studies, ivermectin at an external dose of 0.2 mg / kg + 2 ml of Fipronil allows you to prevent the psoroptosis of sheep in a single dose under the skin for an average of 65-70 days.
2. Regrouping sheep (goats) without the permission of a veterinarian who provides services to the farm, preventing the formation and regulation of flocks in pastures and wintering.
3. After the sheep (goats) are transferred to the pastures, clean the buildings, foundations and enclosures from manure.
4. Before sending sheep (goats) to remote pastures, arrange for them to be bathed in hexachlorane emulsion. Once the sheep return to their permanent habitat, processing is repeated.

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