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ANOPLOTCEPHALYATOSIS OF SHEEP AND INFORMATION ABOUT THEM**Sh.Kh.Kurbanov**

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Abstract:The article presents new information about the increase in anoplocephalatoses among sheep in the conditions of Uzbekistan, including the increase in the number of species of causative agents of monieziosis and avitellinosis.

Key words: cestode, moniesia, tizaniesia, avitellina, stilesia.

Introduction:Sheep breeding is one of the main branches of animal husbandry, which provides the population of our republic with high-quality meat, milk and fat products, and the industry with leather (cow and other skins) and wool products as raw materials. There are also factors that prevent the development of this field in the full realization of such positive works, which include various parasitic diseases found among animals, including helminthiasis. Due to the wide distribution of helminths among animals, as well as the fact that they cause various diseases in farm animals and poultry, their research undoubtedly creates an opportunity to solve not only the problems of the veterinary field, but also wide-ranging socio-economic issues. The fact that various invasive diseases are hindering the development of animal husbandry and increasing its efficiency, and helminthiasis occupies one of the main places among them, many animals die, productivity decreases, young animals lag behind in growth and development, many ewes become sterile, and the body is resistant to other diseases. It is observed that the ability to fight, i.e. resistance decreases, milk products decrease by 15-30%, and meat products decrease by 10-30%. Taking into account the above, today it is important to carry out research aimed at the study of anoplocephalatoses among sheep.

Anoplocephalatoses are a group of intestinal cestodoses, the causative agents of which are Cestoda Rudolphi, 1808, class Cyclophyllidea Beneden in Braun, 1900. Cestodes belonging to this group differ from the representatives of the class Pseudophyllidae Carus, 1863 by the fact that they develop with the participation of two hosts, the absence of a larval development period in the external environment, the larvae that develop in the intermediate host are in the form of bubbles and are treated with different norms, and the joints made in the strobila are mostly from one copy. The causative agents of monieziosis, tizanieziosis, avitellinosis, stileziosis among anoplocephalatoses have been recorded in ruminant domestic and wild mammals. Accurate diagnosis of each of them requires the study of important anatomic-morphological and some biological characteristics of all cestodes.

Until now, 12 types of monieziosis causative agents, 13 types of avitellinosis causative agents, 1 type of tizanieziosis causative agent, 1 type of tizanomosis causative agent, and 3 types of stileziosis causative agent are known worldwide. All of them belong to the family of flatworms - Plathelminthes Schneider, 1873, cestodes - Cestoda Rudolphi, 1808, Cyclophyllidea Beneden et Braun, 1900, and the subfamily Anoplocephalata Skrjabin, 1933 of this family. Systematically, the causative agents of moniezia from anoplotcephalatoses belong to the genus *Moniezia* Blanchard, 1891 of the family Anoplocephalidae Chlodkowsky, 1902 of the subfamily Anoplocephalata. More than 10 species of this genus are known in science. Among them, *Moniezia expanza* (Rudolphi,

1810), *Moniezia benedeni* (Moniez, 1879), *Moniezia autumnalia* (Kuznetsov, 1967) species parasitize sheep and goats as well as cattle in Uzbekistan. Representatives of 3 genera of Avitellinidae Spassky, 1950 family were found parasitizing sheep in Uzbekistan. They include *Avitellina centripunctata* (Rivolta, 1874) belonging to the genus *Avitellina* Gough, 1911, *Thysaniezia* Skrjabin, the only representative of the genus *Thysaniezia* 1925 - *Thysaniezia giardi* (Moniez, 1879), *Stilesia* Railliet, 1893 belonging to the genus *Stilesia globipunctata* (Rivolta, 1874). Thus, 6 types of anoplocephaly have been identified in the territory of Uzbekistan.

Based on this, the species composition, anatomo-morphology, biology, ecology, epizootological status, diagnosis, development of modern measures for combating and preventing them, determining their economic indicators, and putting them into practice are one of the urgent problems of today. is considered

Materials and methods. In the studies, the role of anoplocephalatoses agents in the systematics, the level of their study was analyzed, and examinations were carried out by the method of helminthological analysis of the small intestines of sheep that died as a result of various diseases and were forcibly slaughtered.

Results and their analysis. Anoplocephalatoses of sheep occurs in almost all countries of the world. They cause great economic damage, especially to young animals with small horns, when the intensity of parasite infestation is high, more deaths are observed among them.

In the conditions of Uzbekistan, studies focused on the prevalence of anoplocephalatoses - monieziosis, tizanieziosis, avitellinosis and their causative agents, their diagnosis and treatment among large and small horned animals have not been studied for the last 40-45 years. According to the latest faunistic studies, until 1974, 2 types of moniezia causative agents - *Moniezia expanza* and *M.benedeni*, one type of tizanieziosis causative agent - *Thysaniezia giardi*, one type of avitellina causative agent - *Avitellina centripunctata*, and in addition to these, a third type of moniezia - *M.autumnalia* were encountered in sheep. recorded. By 1994, the above three types of monieziosis causative agents were known in sheep and goats. In recent years, in the faunistic data conducted by some researchers, it was noted that only 2 causative agents of monieziosis, no tizanieziosis and avitellinosis are found among the 5 types of causative agents of intestinal cestodosis diseases. In our studies, it is noted that not only monieziosis, but also tizanieziosis and avitellinosis are quite common among sheep, as a result of which death cases are observed.

In our research, in the sheep of Samarkand, Jizzakh, Kashkadarya, Navoi, and Tashkent regions, we found moniesia belonging to other species, some of them reminiscent of *M.autumnalia*, except *M.expanza* and *M.benedeni*, which are morphologically distinct from each other. The strobila of some of their adults is very short, and the joints grow rapidly in width. For example, a cestode with a strobila of only 70 cm is sexually mature, its neck is very short (about 1 cm) similar to that of *M.expanza* and *M.benedeni*, but the scolex is very large, the width of the first joints that begin to form from the neck is 1.2 mm, from Joints at a distance of 7-8 cm are 2.5-3.5 mm wide and 0.3-0.4 mm long, and at a distance of 35 cm they are 6.2 mm wide and 0.9 mm long. After that, the joints do not develop uniformly: at first, narrowing in width, they grow a little in height, and then vice versa. Although the last joints are 7-7.5 mm wide and 1.1 mm long, they have a rectangular shape similar to that of *M.benedeni* and have a pear-shaped apparatus structure. If we take another cestode with a strobila of 110 cm, its scolex is not large, but its neck is 8-10 times longer than that of *M.expanza* and *M.benedeni*, accordingly, the formation of joints begins at a distance of 8 cm in the scolex (perceived only under a microscope), but that of the first cestode and after only 5 cm their width increases to 3 mm, after 10 cm to 6 mm, after 20 cm to 9 mm, after 35-50 cm to 10 mm, after 80 cm to 11 mm,

After 100 cm, it becomes 12 mm. After that, the width is slightly reduced (by 3-4 mm), and the last joints do not exceed 10 mm in width and 0.7-0.8 mm in length. Such joints are made, in which you can see the eggs that are just forming. Thus, this cestode is distinguished from *M.expanza*, *M.benedeni*, *M.autumnalia* by these morphological and developmental features. Another 120 cm long cestode with a very short neck, like the first cestode, has joints 7 mm wide in its 30 cm strobila, 12 mm in the 80 cm part, 14 mm in the 100 cm part (length 1.2 mm), and the last joints almost the same size, but they have eggs with a pear-shaped apparatus that is triangular in shape, like that of *M.expanza*. Шуни алоҳида қайд қилиш керакки, бизлар тўплаган цестод коллекциялари орасида мониезиялар ва тизаниезиядан морфологик жиҳатдан кескин фарқ қилувчи жуда ингичка шаклга эга бўлган, бўғимланиш сколексдан сўнг 1-1,5 м масофада ҳам бошланмаган цестодлар кўплаб учрамоқда. Улар орасида *A.centripunctata* ҳам мавжуд. Аммо ундан кескин фарқ қилувчи бошқа турга оид авителлиналар ҳам учрамоқда. Бундай цестодларни Самарқанд, Қашқадарё, Тошкент вилоятларининг қўйларида учратиш келмоқда. Танаси узун, аммо жуда ҳам ингичка бўлган бундай цестодлар ўлган қўйлар ичагида ҳам топилмоқда. Уларнинг нафақат морфологияси, биологияси, балки патогенли хусусияти ҳам ўрганилмаган. Ичак цестодлари орасида *Thysaniezia* авлодига кирувчи яққо ёлғиз ҳисобланувчи *T.giardii* ўзининг морфологик хусусиятларига кўра бошқа цестодлардан кескин ажралиб туради. Жумладан уларнинг бўйинча қисми 30-35 см узунликда бўлиб, унда шаклланаётган бўғимлар, бир хил йўналишда энига ўсиб боради ва энг сўнги жинсий томондан етилган бўғимларнинг эни 7-9 мм га тенг бўлади, бундай бўғимларда кўплаб парутеринли органлар мавжуд, тухумлари кўпинча ноксимон шаклга эга бўлган капсулалар (пиллалар) ичида бир нечтадан жойлашади. Тухумлари майда ҳажмда, уларда ноксимон аппарат бўлмайди. Тизаниезиялар ок, тиник рангда, жинсий тешиқлар мониезияларда бир жуфтдан бўлиб, улар бўғимларнинг чап ва ўнг томонларида жойлашган бўлса, тизаниезияда улар тоқ ва бўғимларнинг бирида чап, иккинчисида ўнг томонда жойлашиб боради. Уй ва ёввойи ўтхўр қавшовчи жуфт туёқли сут эмизувчиларда *Avitellina* авлодининг 13 турининг паразитлик қилиши аниқланган. Аммо улар орасида фақат бир тур авителлина – *Avitellina centripunctata* барча МХД ҳудудида қўйларда рўйхатга олинган.

In the conducted studies, it was found that among the cestodes there are also species that are morphologically different from *A. centripunctata*. Their body is very thin and long, joints are not noticeable. When viewed under a microscope, strobila with a length of 1-1.5 m do not have segmentation, later they can be seen only under a microscope to form, but no joints were found in strobila of 3 m and longer. But in the Kashkadarya region, we found many crushed joints of new cestodes in the dung of young lambs. Their width is 2.5-3.0 mm, length is 1.2-1.5 mm, and we found the presence of cocoons (capsules) with several eggs in each [6].

In the territory of Uzbekistan, *Stilesia globipunctata* belonging to the genus *Stilesia* was found in the small intestine of sheep in Samarkand region in 1946-1948. *Stilesia vittata* was found on camels in Turkmenistan in 1948. According to the literature, the strobila of *S.globipunctata* is very thin and finely structured, its length is about 60 cm, the segmentation is not noticeable, and the width of its joints is about 2-3 mm.

According to literature data, more than half of all intestinal cestodes found in sheep of Samarkand, Kashkadarya, Surkhandarya regions were caused by *T. giardii*, the causative agent of tizanieziosis, and *A. centripunctata* was in the last place in this respect and it was found in a very small amount. *M. benedeni* was the second most widespread, and *M. expanza* was the third. After that, in the literature until 2000, all four types of anoplocephalitis were found in sheep, but their extent of invasion and intensity of invasion were somewhat lower. But in the research carried out in

2000-2005, in the sheep of Tashkent, Samarkand, Kashkadarya, Surkhandarya, Navoi and Bukhara regions, which were examined in a very large amount, only a small amount of parasitism of *M. expanza* and *M. benedeni*, absence of *T. giardi* and *A. centripunctata* were found. shown. Thus, only 2 out of 4 types of anoplocephalatoses causative agents (excluding *S. globipunctata*) were recorded. In our researches, in Samarkand, Kashkadarya, and Navoi regions, anoplocephalatoses are increasing, and the biodiversity of their causative agents is not decreasing, but increasing. All this requires conducting researches in order to thoroughly study anoplocephalatoses not only among sheep, but also among other ruminant domestic and wild mammals.

Conclusion. Currently, among all helminthoses, as well as trematodes, anoplocephalatoses are increasing among sheep, and the species of their causative agents are increasing in number. Therefore, it is important to study the epizootological and faunistic status of the causative agents of these diseases in all ruminants, as well as to develop and implement measures to combat them.

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