

«Диспепсия» терминін алғаш рет 1875 жылы австриялық дәрігер Видергофер ұсынған. Диспепсия – асқазан-ішек жолдарының функционалдық белсенділігінің бұзылуымен жүретін, патологиялық және анатомиялық өзгерістерсіз жүретін клиникалық көрініс.

Зерттеуге материал ретінде шаруашылықтағы жаңа туған 12 бас бұзау алынды. Зерттеуде жас малдардың жас көрсеткіштеріне, азықтандыру, күтіп-баптау ерекшеліктеріне және оларда жаттығулардың болуына назар аударылды.

Зерттеу жұмысы шаруашылықтағы бұзаулардағы диспепсияның этиологиялық себептерін анықтауға және диспепсиямен ауыратын бұзауларға салыстырмалы дозада табиғи стартинді қолдану нәтижелерінің тиімділігін анықтауға бағытталған.

Стартин – біріктірілген дәрілік зат, жалпы салмағы 550 г, үш полиэтилен пакетке салынған ұнтақ тәрізді заттар кешені. Стартин ащы ішекте патогендік микрофлораны басуға көмектеседі, ұлтабарда казеиндік безоарлардың түзілуін болдырмайды, ас қорытуды жақсартады және дененің су-тұз тепе-теңдігін қалыпқа келтіреді.

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THE COMPARATIVE EFFECTIVENESS OF VARIOUS METHODS OF CAUDOTOMY IN LAMBS

ANNOTATION

The results of the study show that performing a caudotomy by unscrewing and breaking prevents various postoperative complications in lambs of the Akzhayk meat wool breed and the healing time of wounds is the shortest in comparison with other methods of caudotomy, whereas with other methods, if asepsis, antiseptics and techniques are not followed, various pathologies are observed in the ventral region of the tail stump and sacrum in animals, also the healing time is longer than in this group. Large deviations of the studied clinical parameters of animals in the first and third groups were due to the fact that in these groups caudotomy was carried out by the bloody method. With the method of elastration with the help of an elastrator, an elastic band inserted into the tail causes severe pain. In groups where bloody caudotomy methods were used, an increase in leukocytes and a decrease in erythrocytes and hemoglobin were observed. With the method of elastration, the indicators of erythrocytes and hemoglobin were lower for up to 7 days. Leukocyte counts were also higher on day 7. Hematological parameters during caudotomy by unscrewing and breaking on lambs were quickly restored. Carrying out a caudotomy by unscrewing and breaking off the lambs of the akzhaiksa meat-wool breed is an effective way.

Key words: caudotomy, lambs, efficiency, sheep breeding, tail.

Introduction. One of the main problems so far remains the provision of the country with meat, milk and wool on the basis of an increase in its own production. The solution of this problem can be most effectively accomplished through the rational use of breed resources of sheep of domestic and imported breeding, a more complete realization of the genetic potential of animals for converting feed nutrients into meat and wool products, maximizing the use of local feed resources, introducing advanced production technologies and biotechnology. Increasing livestock in sheep farming is

considered a strategic objective of the agro-industrial complex of the Republic of Kazakhstan. An important role is assigned to the economic management of sheep [1, 2].

In the West Kazakhstan region sheep breeding is one of the main and promising sectors of animal husbandry. And of all the meat-wool semi-fine-wool breeds and herds of sheep that exist in Kazakhstan, the most productive is the Akzhaik meat-woolly breed with crossbred wool. Sheep of the specified direction most successfully combine high wool and meat productivity, showing good payment of spent feed products [3, 4].

And one of the preventive and economic measures of veterinary surgery to increase and improve wool productivity in sheep breeding, along with the directional breeding work and good feeding of sheep, is of great importance to lamb caudotomy [5, 6, 7, 8, 9].

When breeding meat and wool sheep, along with meat productivity, great importance is attached to the production of cross-bred and cross-bred type of wool and improvement of its quality. It is caused not only by the need to increase the profitability of sheep farming, but also by the deficit of crossbred wool formed in recent years [10, 11, 12, 13].

In fine-fleeced lambs, caudotomy is carried out to prevent wool deterioration due to contamination of the tail and rear surface of the pelvic extremities with urine and feces, since this operation is economic [14, 15, 16].

The aim of our study was to determine the effective method of caudotomy in lambs of the Akzhaik meat-woolly breed.

Materials and methods of research. The material for the study of the effective method of caudotomy was the lambs of the Educational and Scientific Center of the West Kazakhstan Agrarian Technical University named after Zhangir Khan. For this purpose, clinically healthy lambs of Akzhaik meat and wool breed were selected at 3 days old in the amount of 200 heads, which were conventionally divided into 4 groups of 50 heads.

The first group of lambs was tail amputated by a surgical, bloody method; in the second group, lambs were caudotomized by the ampulator A-1, using the “elastration” method, in the third group, a caudotomy was performed with an emaskulyator for the castration of small animals; in the fourth group, a caudotomy was performed by unscrewing and breaking.

Technique of caudotomy in a bloody way. Fingers of the left hand squeezed the tail at a distance of 6-10 cm from the root of the tail and shifted the skin to its base. The end of the tail is cut off with scissors or a knife. After 20-30 seconds, the fingers of the left hand were relaxed and the skin was gently shifted to the tail stump. The wound was treated with iodoform powder or a disinfectant solution, which was used to treat the surgical field (3% solution of carbolic acid, etc.) [17, c. 121].

Technique of caudotomy by elastor. When the tail was amputated in lambs using an elastration method, special forceps A-1 was used to stretch the rubber ring, stretch it and thread the tail, put a ring between 3-4 or 4-5 tail vertebrae. Other instruments, their special (sterilization of instruments, etc.) surgical preparation before conducting a caudotomy using the “elastration” method is not required. The assistant fixed the lamb with two hands in the chest or abdomen area, the surgeon left the tip of the tail through the already stretched ring with his left hand. Then, when the ring between the caudal vertebrae was placed, it was placed under the control of the fingers [18, c. 185].

Technique of caudotomy by emaskulyator for castration of small animals. For the amputation of the tail, an emaskulyator was used for castration of small animals. They put it on the middle of the tail and after 1-2 s were removed. The stump of the tail was treated with iodoform powder [19, c. 215].

Technique of caudotomy by loosening and breaking. The left hand firmly held the tail at a distance of 6-10 cm from the root of the tail, and the right hand twisted through the intervertebral articulation. After subcutaneous rupture and tissue destruction, the tail skin was cut off with a sharp movement [20, c. 166].

The clinical parameters of the animals were examined by conventional methods. Morphological parameters of blood were studied on an automatic hematological analyzer [21, c. 316; 22, c. 265].

Research results and discussion. The results of the study after carrying out different methods of caudotomy in lambs are shown in Table 1 where it is clearly seen that in lambs of the first group 18 (36%) animals had wounds healed by day 7, in 24 (48%) animals by day 14, in 3 (6 %) towards the end of the month, that is, for 21 days.

Table 1 – Comparative efficacy of different methods of lamb meat caudotomy.

Dates, days	Methods of caudotomy, group,%			
	Group 1	Group 2	Group 3	Group 4
3 days	36	66	30	98
7 days	48	32	50	2
10 days	6	2	8	-
Complications after surgery	10	-	12	-

Operational wounds in lambs of the first group were often in contact with the soil. In addition, when the mother licked during the feeding and movement of the stump during sucking the lambs, the tail wounds were contaminated with the dirty wool of the outer surfaces of the sheep's hind limbs. This led to significant contamination of them in the postoperative period and the introduction of soil and purulent-putrid infections. Because of this, in 5 (10%) lambs, various suppurative complications were observed, which, after detection of the pathology, were separated from the group and treated individually. Suppurative processes were observed in the area of the ventral part of the tail stump as early as 4-6 days after the operation.

In the second group, tail amputation occurred through dry necrosis of the tail tissues, mostly without complications, the tail disappeared independently. In 33 (66%) animals, wounds healed by day 3, in 16 (32%) animals by day 7, in 1 (2%) closer by day 10.

In the third group, complications after surgery were observed in 6 (12%) animals. Surgical wounds, like those of the first group of lambs, also touched feces, urine and other impurities. In these animals, after amputation, bleeding from the stump of the tail was observed, in order to stop it, the amputation was repeated, departing somewhat from the tail stump. On the body of the vertebra, the emasculator was applied with a cutting surface to the tip of the tail. In 15 (30%) animals, wounds healed by day 3, in 25 (50%) animals by day 7, in 4 (8%) closer by day 10.

In the fourth group, no bleeding was observed, the wound was covered with skin and healed without complications. In 49 (98%) animals, the wounds healed by day 3, in 4 (2%) animals by day 7.

When performing various operations on animals, it is necessary to pay special attention to the clinical signs of animals, conduct regular examinations, and monitor metabolic processes in the body. In practice, the most accessible clinical examinations, both normal and pathological, include body temperature, pulse rate and respiratory rate.

The second goal of our experience was to identify the influence of various methods of cutting the tail on some clinical indicators of lambs. According to the data given in Table 2, clinical indicators in the physiological normal state of lambs are within the clinical norm of their healthy animals.

Table 2 – Some clinical manifestations of lambs in which a tail incision was made by various methods

Indicators, groups		Research time (days)			
		1	3	7	14
Body temperature, °C		41,5±0,32	41,06±0,17	40,5±1,26	39,02±0,67
		40,9±0,40	40,05±1,05	38,7±0,75	38,5±1,32
		41,6±0,33	41,12±0,25	40,4±1,03	39,05±0,87
		0,6±0,28	38,7±0,15	38,8±0,41	38,6±0,54
Pulse, rate /min		139±1,53	135±0,77	130±0,96	124±0,71
		132±0,69	125±0,23	126±1,26	115±0,80
		138±0,27	136±1,09	131±0,53	126±0,58
		132±1,65	115±0,43	110±0,85	111±0,64
Breathing rate, (rate /min)		24±0,74	23±1,27	22±0,67	16±1,09
		21±1,85	20±0,84	18±0,88	17±0,76
		25±0,95	23±1,32	23±0,53	18±0,94
		20±1,07	16±0,75	15±1,02	16±0,85

As reported by the results of the study in group 1, that is, according to the clinical manifestations of bleeding lambs, the body temperature was higher for up to 7 days. The blood pulse rate began to recover on day 7. Respiratory rate indicators were also at the same level.

As stated by the results of the study in group 2, judging by the clinical manifestations when cutting the tail with an elastrator on lambs, the body temperature normalized for 3 days. The blood pulse rate was restored on day 3. Respiratory rate indicators were also at the same level.

Based on the results of the study in group 3, judging by the clinical manifestations during the bloody excision of lambs with an emasculator, the body temperature was higher up to 7 days. The blood pulse rate began to recover on day 7. Respiratory rate indicators were also at the same level.

According to the results of the study in group 4, judging by the clinical manifestations when cutting the tail with a turn on lambs, there were no significant changes in body temperature, pulse rate, respiratory rate.

The third goal of our research was to analyze some morphological parameters of blood in sheep after cutting the tail by various methods. The study of blood parameters allows an objective assessment of morphophysiological and pathological changes in blood under the influence of tail cutting. The selection of lambs in the experimental group was carried out according to the principle of analogues, clinically healthy animals were used. For hematological studies, blood from the blood vessel of experienced lambs was taken in the morning, mainly before feeding.

According to the data given in Table 3, in the 1st group of animals, that is lambs, if we look at the hematological manifestations during bloody felling, red blood cells were lower up to 7 days. White blood cells were also higher on day 7. The amount of hemoglobin decreased and recovered on day 7.

In the 2nd group of animals, judging by the hematological manifestations when cutting the tail with an elastrator on lambs, red blood cells recovered on the 3rd day. Leukocytes decreased on day 3. The amount of hemoglobin recovered on day 3.

In the 4th group of animals, red blood cells recovered on the 3rd day, if you look at the hematological manifestations when cutting the tail with a turn on lambs. Leukocytes decreased on day 3. The amount of hemoglobin was in the physiological norm.

Table 3 –Blood counts of lambs that had a tail incision made by various methods

Indicators, groups		Research time (days)			
		1	3	7	14
Erythrocytes, mil/mcl; 10 ¹² /l	1	6±0,85	6±0,26	7±0,89	8±0,87
	2	6±0,33	7±0,96	8±0,25	9±0,41
	3	6±0,42	6±0,35	7±0,76	8±0,17
	4	6±0,54	8±0,30	8±0,54	10±0,44
Leukocytes, ths/ mcl; 10 ⁹ /l	1	18±0,61	16±0,57	15±0,51	14±0,72
	2	16±0,84	13±0,29	11±0,28	10±0,59
	3	17±0,87	17±0,63	15±0,47	14±0,94
	4	15±0,55	11±0,60	10±0,45	10±0,62
Hemoglobin, gm/l	1	88±0,34	90±0,84	92±0,52	102±0,49
	2	90±0,58	97±0,42	104±0,20	110±0,36
	3	89±0,96	90±0,93	93±0,58	101±0,78
	4	93±0,41	103±0,72	105±0,63	108±0,83

Conclusion. Deviations of the above clinical parameters in groups 1 and 3 were due to the fact that in these groups excision of the tail was carried out by the method of blood supply. There were plenty of pathologies when using bloody methods. With the method of elastration, an elastic band inserted into the tail causes pain.

In the groups where the incision of the tail was made by bloody methods, an increase in leukocytes and a decrease in erythrocytes and hemoglobin were observed. With the method of elastization, the indicators of erythrocytes and hemoglobin were lower for up to 7 days. White blood cells were also higher on day 7. Hematological manifestations when performing a tail incision by twisting on lambs were quickly restored.

Conducting caudotomy by loosening and breaking prevents various post-operative complications in lambs by almost 100% and the healing time for wounds is the shortest compared with other methods of caudotomy, while with other methods of non-observance of asepsis, antiseptics and technology, various pathologies are observed in the ventral stump region the tail and sacrum in animals, as well as the healing time of them more than in the fourth group.

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ТҮЙІН

Зерттеу нәтижелері көрсеткендей, каудотомияны бұрау және ұзу арқылы жүргізу ақжайық етті-жүнді жүнді қой тұқымының қозыларында әртүрлі операциялық асқынулардың алдын алады және жараларды емдеу мерзімі каудотомияның басқа әдістерімен салыстырғанда ең қысқа болады, ал асептика, антисептика және орындау техникасы дұрыс сақталмаса, жануарлардың құйрығы мен сегізкөздің вентральды аймағында әртүрлі патологиялар байқалады, сонымен қатар олардың емделу мерзімі осы топқа қарағанда ұзақ. Бірінші және үшінші топтардағы зерттелген жануарлардың клиникалық көрсеткіштерінің үлкен ауытқулары осы топтарда каудотомияның қанды әдіспен жүргізілуіне байланысты болды. Эластатор көмегімен серпімділік әдісінде серпімді резеңкеңі құйрыққа салу барысында және одан кейін қатты ауырсынуды тудырады. Қанды каудотомия әдістері қолданылған топтарда лейкоциттердің жоғарылауы және эритроциттер мен гемоглобиннің төмендеуі байқалды. Эластрация әдісімен құйрық кесілген қозыларда эритроциттер мен гемоглобиннің көрсеткіштері 7 күнге дейін төмен болды. Лейкоциттер клеткаларының саны да 7-ші күні де жоғары болды. Қозыларды бұрау және ұзу арқылы каудотомия кезіндегі гематологиялық көрсеткіштер тез қалпына келді. Ақжайық етті-жүнді тұқымды қозылардың құйрығын бұрау және ұзу жолы арқылы каудотомия жүргізу тәсілі тиімді болып табылады.

РЕЗЮМЕ

Результаты исследования показывают, что проведение каудотомии путем откручивания и обрыва предотвращает различные после операционные осложнения у ягнят акжайкской мясо шерстной породы и сроки заживления ран самое короткое в сравнении с другими способами каудотомии, тогда как при других способах при несоблюдении асептики, антисептики и техники выполнения наблюдаются различные патологии в вентральной области культи хвоста и крестца у животных, также сроки заживления у них больше чем в данной группе. Большие отклонения исследованных клинических показатели животных в первых и третьих группах были обусловлены тем, что в данных группах каудотомия осуществлялась кровавым методом. При методе эластрации с помощью эластратора резинка вставленная в хвост, вызывает сильную боль. В группах, где использовались кровавые методы каудотомии наблюдалось повышение лейкоцитов и снижение эритроцитов и гемоглобина. Гематологические показатели при каудотомии путем откручивания и обрыва на ягнятах быстро восстанавливались. Проведение каудотомии путем откручивания и обрыва у ягнят акжайкской мясо-шерстной породы является эффективным способом.