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RESULTS OF LABORATORY ANALYSIS OF MEAT SAMPLES SUSPECTED OF TUBERCULOSIS.

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Annotation: This article describes the results of laboratory analysis of meat samples suspected of having tuberculosis.

Keywords: *extract, indicator, paranitrophenol, Michaelis scale, neutral, keliscope, bubble, acidity.*

Relevance of the topic. The importance of food in meeting the material needs of man as a biological being is immeasurable. It is through food that we obtain the proteins, fats, carbohydrates, vitamins, minerals, and other compounds we need for life. One of the main tasks of the state program "Ensuring food security in our country" is to meet the needs of the population in food. In particular, in the field of animal husbandry, special attention is paid to ensuring the ecological purity and quality of products.

Therefore, it is important to control the transmission of infectious diseases in cattle, including tuberculosis, from animals to humans. Mycobacteria of tuberculosis are exposed to gastric juice when the disease is transmitted through food. When the bacteria survive, they enter the gut, pass into the regional lymph nodes, and then enter the bloodstream. The digestive tract, the oral cavity, the large and small intestines, and the tubercle bacillus can all be gateways to the body. Animals infected with tuberculosis are also a source of infection. Therefore, the causative agent of tuberculosis can be transmitted to the human body through food through uncooked meat and dairy products. Up to 26.5% of people are infected with the mycobacterium tuberculosis virus. In Russia in 2002-2004, 75254-93700 head of cattle tested positive

for tuberculosis, of which 18000-21600 samples were bacteriologically tested. Of these, 63.6% were pathogenic and 36.4% were atypical mycobacteria. 96.5% of mycobacteria are bovis species, 2.7% are M. tuberculosis and 0.8% are M. avium species. [5]

In Uzbekistan, an average of 1,605 head of cattle are tested for tuberculosis annually. This is only 0.016% of the average number of cattle.

Pathogens are very resistant to acid, so fermented milk can be stored for up to 20 days. Disease germs can be stored in cheese for up to 2 months, in butter for up to 100 days, in butter for up to 10 months in cold storage, and in frozen butter for more than 6 years. Germs die quickly at high temperatures. In a liquid medium, the temperature rises to 60 ° C in 30 minutes. [3]

Based on the above, it is important to stop the consumption of meat and meat products from cattle with tuberculosis in the country and to improve the veterinary and sanitary assessment of these products.

The purpose of the study. Examination of meat samples suspected of tuberculosis in the laboratory of veterinary sanitary examination and determination of the results.

Place, object and methods of research. The research was conducted in the laboratory of the Samarkand Institute of Veterinary Medicine, Department of Veterinary Sanitary Expertise and Hygiene, using biochemical methods. Samples of suspected meat from Payarik district of Samarkand region were taken as research material.

The results obtained. To prepare the meat extract, 25 grams of meat were taken from each sample, separated from fat, fat and bone, then divided into 40-50 pieces and placed in a 250 ml flask. Pour 100 ml of distilled water into this flask and mix well. After 15 minutes of stirring (stirring 3 times), the meat mixture was filtered through a paper filter. We used the extract to determine the pH of the meat. The Michaelis scale, a 6-digit comparator, was used to determine the hydrogen ion concentration. Pour 2 ml of the extract of the test meat sample into the test tube number 2 of the comparator and add 1 ml of indicator (paranitrofinol) and 4 ml of distilled water; in the first, third, 2 ml of meat extract and 5 ml of distilled water were added to the test tubes, and only 7 ml of water was added to the fifth test tube. The fourth and sixth chambers of the comparator were selected by comparing the color of the second test tube on the Michaelis scale, which showed the pH of the selected test tube. The pH of the meat samples we tested showed a decrease in acidity on the second and third days compared to the first day of testing. Controlled and pathological samples were stored under the same conditions.

Meat samples	The first day of inspection PH index	PH on the second day of testing	PH on the third day of testing
	±5,8	±5,9	±6,0
2- sample	±6,5	±6,6	±6,9
3- sample	±6,4	±6,6	±7,0
4- sample	±5,9	±6,0	±6,0
5- sample	±6,4	±6,8	±7,0

As can be seen from the table above, the first and fourth samples were taken from healthy animals, and the second, third and fifth samples were taken from diseased animals.

The meat samples we tested were also tested with a formalin reaction. During the examination, 10 grams of meat samples were taken, crushed with scissors, placed in a mortar and placed in 10 ml of saline solution, 10 drops of 0.1% alkaline solution. The meat was crushed and rubbed with a chisel, and the resulting slurry was transferred to a flask using a glass rod and heated to boiling point to precipitate the proteins. The flask was cooled with running water, 5 drops of 5% shovel acid were added to neutralize, and the paper was filtered. Take 2 ml of the prepared meat extract in a test tube and add 1 ml of neutral formalin.

At the end of the reaction, the filtrates from the first and fourth samples were clear, and the filtrate from the second, third and fifth samples was precipitated.

Conclusion.

In summary, the biochemical characteristics of TB-infected cattle differ from those of healthy animals in that they are unfit for human consumption.

Over time, the concentration of hydrogen ions in diseased beef decreases, the acidity decreases and becomes alkaline, making it unfit for human consumption.

Meat and other products from infected cattle must be thoroughly inspected in accordance with veterinary legislation, otherwise people may become infected through the products.

List of used literature

1. Salimov X.S., Qambarov A.A. “Epizootology”, Textbook, Tashkent, 2016.
2. Shapulatova Z.J. “Microbiology”, Textbook, Tashkent 2013
3. Murodov S.M. "Veterinary Sanitary Examination" Samarkand 2006
4. MakrovV.A. “Veterinary Sanitary Expertise with the Basics of Technological Standards for Livestock Products” “Agropromizdat” 1991

Additional literature

1. Худжамшукуров, А. Н. (2021). ТОВУҚ АСКАРИДИОЗИДА АСКАЗИН АНТИГЕЛЬМИНТИГИНИ ҚЎЛЛАШ НАТИЖАЛАРИ. *Интернаука*, (8-3), 44-46.
2. Nurmamatovich, K. A., & Ogli, K. S. I. (2021). Effects of drugs on blood indicators in mixing chicken eimeriosis and pullorosis. *ACADEMICIA: An International Multidisciplinary Research Journal*, *11*(5), 615-617.
3. Maxamadaliyeva, M. U., Abduhalilova, G. I., & Xo'jaxonov, S. I. (2023). BRUTSELLYOZ VA UNING LABORATORIYA DIAGNOSTIKASI. *INNOVATIVE DEVELOPMENTS AND RESEARCH IN EDUCATION*, *2*(15), 41-47.
4. Давлатов, Р. Б. (2023). ТОВУҚ КОЛИБАКТЕРИОЗИ (АДАБИЁТЛАР ШАРХИ). *INNOVATION IN THE MODERN EDUCATION SYSTEM*, *3*(26), 107-111.
5. Давлатов, Р. Б., & Бердиев, Х. Р. (2021). ТОВУҚ КОЛИБАКТЕРИОЗИНИНГ КИМЁПРОФИЛАКТИКАСИДА ОФЛОСАННИНГ САМАРАДОРЛИГИ. *Вестник Ветеринарии и Животноводства*, *1*(1).
6. Бердиев, Х. Р., & Давлатов, Р. Б. (2021). Эффективность Enrovit-O при химической профилактике колибактериоза цыплят.
7. Berdiyevich, D. R. (2023). METHODS OF DIAGNOSIS OF CHICKEN COLIBACTERIOSIS. *AGROBIOTEXNOLOGIYA VA VETERINARIYA TIBBIYOTI ILMIY JURNALI*, *2*(4), 9-13.
8. G'oyipova, M. T. E., Xo'jaxonov, S., & Avliyoqulov, M. (2022). VETERINARIYA SOHASINING CHORVACHILIKNI RIVOJLANTIRISHDAGI O 'RNI VA TAMOYILLARI. *Journal of Integrated Education and Research*, *1*(4), 238-240.
9. Oglu, K. S. I., Zayniddinovich, Z. R., & Oglu, R. J. K. (2022). Review of the literature on sepsis in calves and measures to prevent it.
10. Davlatov, R., Xujaxonov, S., & Berdiyev, X. (2021). ЭФФЕКТИВНОСТЬ ОФЛОСАНА В ХИМИЧЕСКОЙ ПРОФИЛАКТИКЕ КОЛИБАКТЕРИОЗА КУРИЦ. *Вестник ветеринарии и животноводства (ssuv. uz)*, *1*(1).
11. Oglu, K. S. I., & Qizi, K. B. A. (2022). Measures For The Prevention Of Diseases Caused By Disorders Of Bee Nutrition And Feeding Conditions. *Academicia Globe*, *3*(03), 5-8.
12. Zayniddinovich, Z. R. (2022). REVIEW OF THE LITERATURE ON SEPSIS IN CALVES AND MEASURES TO PREVENT IT. *Emergent: Journal of Educational Discoveries and Lifelong Learning*, *3*(1), 1-4.
13. Oglu, K. S. I., Oglu, Y. O. A., & Oglu, J. S. H. (2021). Viral hemorrhagic fever of rabbits ("hemorrhagic pneumonia"," necrotic hepatitis").

14. Subxonovich, H. P., Ergashevna, G. M., & Ogli, K. S. I. (2021). Distribution of helmintosis diseases of one-hoied animals. *ACADEMICIA: An International Multidisciplinary Research Journal*, *11*(10), 880-883.
15. Mahamadaliyeva, M. U., & Agamurodov, O. A. (2021). MEASURES FOR TREATMENT AND PREVENTION OF DISPEPS DISEASE IN CALVES. *Ученый XXI века*, (10 (81)), 12-14.
16. Xo‘jaxonov, S., Xo‘jaxonova, M., & Davlatov, R. (2023). TOVUQ EYMERIOZINING KIMYOPROFILAKTIKASIDA SAMARALI EYMERIOSTATIKLARNI ANIQLASH. *Евразийский журнал медицинских и естественных наук*, *3*(4 Part 2), 75-78.
17. Abduhalilova, G. I., Makhamadaliyeva, M. U., & Khojakhanov, S. I. (2023). FISH BRANCHIOMYCOSIS PREVENTION MEASURES. *International Bulletin of Applied Science and Technology*, *3*(4), 247-252.
18. G‘aniyev, S. S., & Xo‘jaxonov, S. I. (2023). VETERINARIYA LABORATORIYALARIDA SUTNI VETERINARIYA SANITARIYA EKSPERTIZADAN O ‘TKAZISH TALABLARI. *Scientific Impulse*, *1*(8), 586-592.
19. Davlatov, R. (2021). Товуқ колибактериозининг кимёвий профилактикасида антибиотикларнинг самарадорлиги. *Scienceweb academic papers collection*.
20. Davlatov, R. (2021). Бройлер жýжаларида айрим антибиотикларнинг самарадорлик кýрсаткичлари. *Scienceweb academic papers collection*.
21. Xo‘jaxonov, S., Xo‘jaxonova, M., & Davlatov, R. (2023). PARRANDACHILIK XO ‘JALIKLARIDA YUQUMLI KASALLIKLARNI OLDINI OLISH CHORA TADBIRLARI. *Евразийский журнал медицинских и естественных наук*, *3*(5), 77-84.
22. Ibrohimov, U. D., Maxamadaliyeva, M. U., & Xo‘jaxonov, S. I. (2023). OTLARDA OSHQOZON–ICHAK TIZIMI PATOLOGIYASI. *AGROBIOTEXNOLOGIYA VA VETERINARIYA TIBBIYOTI ILMIY JURNALI*, *2*(4), 32-39.
23. G’aniyev, S. S. (2023). VETERINARIYA SANITARIYA EKSPERTIZASI LABORATORIYALARIDA SHAKAR ASALI HAMDA SHAKAR QO’SHILGAN ASAL MAHSULOTLARINI ANIQLASH. *AGROBIOTEXNOLOGIYA VA VETERINARIYA TIBBIYOTI ILMIY JURNALI*, *2*(4), 66-69.
24. Davlatov, R. (2023). TO DETERMINE THE EFFECTIVENESS OF ANTIBIOTICS IN PREVENTING CHICKEN COLIBACTERIOSIS BASED ON EXPERIMENTS. *Scienceweb academic papers collection*.
25. Berdievich, D. R. (2023). PARRANDA ZOTLARI. ZOTLAR KLASSIFIKATSIYASI. *Journal of Integrated Education and Research*, *2*(4), 74-80.

26. Berdievich, D. R. (2023). BROYLER JO ‘JALARI SAQLANADIGAN BINOLARNI TAYYORLASH. *Journal of Integrated Education and Research*, *2*(4), 68-73.
27. Doniyorjon o‘g, I. U. B. (2023). QO ‘YLARDA PARAZITAR KASALLIKLARNI KELIB CHIQISHINI OLDINI OLISH CHORA TADBIRLARI. *Scientific Impulse*, *1*(10), 241-250.
28. Doniyorjon o‘g, I. U. B. (2023). OTLARDA MANQA KASALLIGINI DAVOLASH VA UNI OLDINI OLISH CHORA TADBIRLARI. *Scientific Impulse*, *1*(10), 251-260.
29. Murodjon Turg‘un o‘g, A., & Ergashevna, G. O. M. T. (2023). ASALARI KASALLIKLARI VA ULARNI OLDINI OLISH CHORA TADBIRLARI. *Научный Фокус*, *1*(1), 122-131.
30. HUDUDIDAGI, V. S. E. L. B., BO, A. S. U. S. M., BAHOLASH, Y., & G‘aniyev, S. S. (2023). VETERINARIYA SANITARIYA EKSPERTIZASI LABORATORIYALARIDA BOZOR HUDUDIDAGI ASAL SIFATINI UNDAGI SUV MIQDORI BO ‘YICHA BAHOLASH. Journal of Integrated Education and Research, 2(10), 46-48.
31. Xo‘jaxonov, S. I., & Sharopov, A. U. (2023). IQTIDORLI TALABALAR BILAN ISHLASHNI TASHKIL ETISHNING ASOSIY VAZIFALARI. Journal of Integrated Education and Research, 2(8), 33-36.
32. Berdiyevich, D. R. (2023). QORAMOLLAR SISTISERKOZINING KELIB CHIQISHI, DAVOLASH VA OLDINI OLISH CHORA TADBIRLARI. *Ta'lim innovatsiyasi va integratsiyasi*, *10*(1), 23-30.
33. Berdiyevich, D. R. (2023). GELMINTOZLARGA TASHXIS QO ‘YISH USULLARI. *Ta'lim innovatsiyasi va integratsiyasi*, *10*(1), 3-13.
34. Berdievich, D. R. (2023). PARAZITLARGA QARSHI KURASHISH CHORA-TADBIRLARI. *Ta'lim innovatsiyasi va integratsiyasi*, *10*(1), 14-22.