

ORGANOLEPTIC INDICATORS AND THE PRESENCE OF AMMONIA IN BEEF INFECTED WITH FASCIOLOSIS

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ANNOTATION:

Nowadays, veterinary sanitary examination of products and its control is one of the most important issue. This article gives information about organoleptically changes and presence of ammonia and its effect to cattle infected with fasciolosis.

Keywords: fasciolosis, trematodes, safety, Nessler's reagent, extract, cattle, liver, biliary system.

Аннотация: В настоящее время ветеринарно-санитарная экспертиза продуктов питания и их контроль является одним из самых важных задач во всех странах мира. Это статья даёт информацию о органолептических изменениях, а также наличие и воздействие аммиака на продукты питания при фасциолезе крс.

Ключевые слова: фасциолез, трематоды, безопасность, реактив Несслера, экстракт, крс, печень, желчная система.

RELEVANCE OF THE TOPIC:

Special problems of veterinary and sanitary examination at the present time are: further improvement of veterinary and sanitary examination and evaluation of meat

and meat products obtained from animals with various diseases. Fasciolosis is also one of these diseases. Fasciolosis is one of the most common zoonotic diseases in the world, especially in areas with high humidity. Also, fasciolosis is one of the many parasitic diseases often found in humans.

The most numerous cases of the disease are observed in countries where agricultural activity dominates. Fasciolosis can affect any organ, but in most cases, the dominant position is occupied by damage to the liver and biliary system.

Fascioliasis is still a widespread disease of farm animals, especially cattle. This helminthiasis is widespread in almost all countries of the world; in order to limit the spread, preventive measures must be taken regularly. It was shown that the development of fasciolosis in cattle negatively affects not only their growth, but also the quantity and quality of meat and meat products obtained from them.

To solve this problem, it is necessary to take preventive measures.

Bio helminths are a group of parasitic worms that, in adulthood, parasitize in the so-called definitive (final) host (man, animal), and at the larval stage - in an intermediate host (different animals), in contrast to

geohelminths, which develop without an intermediate host.

MATERIAL AND RESEARCH METHODS:

The research was carried out in a specialized slaughterhouse of the Samarkand region "Sam teri tayyorlov". 24 heads of cattle were examined, and 8 of these slaughtered cattle were found to have fascioliasis. This means that 30% of the animals (cattle) were infested with fascioliasis.

In the course of this work, the post-mortem state of the liver and biliary system, organoleptic indicators, life style (condition of feeding, care and others), the percentage of sick animals and the presence of ammonia in meat were investigated. To determine ammonia in meat during fascioliasis, a reaction with Nessler's reagent was set up. Organoleptic sampling methods and chemical examination were carried out in accordance with the rules of veterinary and sanitary examination.

RESEARCH RESULTS:

Fascioliasis harms not only the health of animals, but also affects the physicochemical parameters of meat and meat products. There is a change in the density of the meat, the smell and other indicators change.

Therefore, a comparison of organoleptic and laboratory results of healthy and fascioliasis-infested animals is of great importance in veterinary and sanitary examination and evaluation of products.

Organoleptic characteristics were examined. During the organoleptic examination, attention was paid to the color, smell, texture, condition and other indicators.

Meat samples from the studied groups of cattle in natural light were red, well bled, and had a weak degree of moisture on the cut. The meat had a firm consistency, and the finger-pressed fossa leveled out quickly.

The cut surface of the muscles was clean, not sticky to the touch, and had a specific smell typical of beef. In clinically healthy and infested cattle with fascioliasis, the surface fat of the meat was white, solid, and slightly crumbled when crushed. The tendons in the carcasses of sick and invaded animals were elastic, dense, the surfaces of the joints were smooth and shiny.

In terms of organoleptic indicators, the meat of healthy and sick animals does not differ much. But in the liver and biliary system of the invaded animals, trematodes can be seen.

The liver, affected by fascioliasis, was enlarged, bumpy, swollen, with blunt edges, sharply compacted in places, easily torn when crushed with fingers. Basically, fascioliasis is were located inside the liver and biliary system. Visually, they looked like yellowish spherical or spherical formations with a dense, elastic and fluctuating consistency. Fascioliasis trematodes were located in different parts of the liver.

When examining the biliary system, a black liquid was found, located both on the surface and in the depths of the organ parenchyma. Fasciolly trematodes were noted in all liver lobes. With a deep location, the trematodes are surrounded on all sides by black nodules and are abundantly developed by connective tissues.

Trematodes in the liver and biliary system are hardly noticeable, that is, the liver is infected.

In addition, we prepared an extract from infested and healthy cattle to compare the difference. For this, samples were taken from all investigated heads of cattle. Prepared meat extract in a ratio of 1: 4. A weighed portion (5 g) of meat, chopped with scissors to the state of minced meat, was placed in a flask, and 20 ml of bidistilled water was added; stirred every 5 minutes for 15 minutes, then filtered through a paper filter.

Table № 1 Extract from the meat of the studied animals

Healthy animals	Infested animals
Good filtration, the extract is transparent, easily passed from the filter	Good filtration, the extract is slightly cloudy, not quickly passed from the filtration

Water extracts from meat of non-infected and infected with fascioliasis were filtered in about the same way. However, the filtrate from the meat of clinically healthy animals was clearer than from the meat of infected sheep.

Additionally, this filtered extract was used to direct the reaction with Nessler's reagent. 1 ml of meat extract was taken into a test tube and 10 drops of Nessler's reagent were added to the extract and mixed.

Reaction with Nessler's reagent Table № 2

Healthy animals	Infested animals
Negative reaction (slightly yellow, transparent)	Positive reaction (yellowish, cloudy)

In Nessler's reaction, you can see the difference between infested and healthy animals. In healthy animals, the meat extract produces a slightly yellow color and the solution remains clear. The reaction is negative. But in invasive animals, the reaction gives a yellowish tint and the extract is cloudy. The reaction is positive.

CONCLUSIONS:

Studies of meat in healthy and infested cattle with fascioliasis have led to the conclusion that the disease affects the quality and nutritional values, and also changes some of the chemical parameters of the product.

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