CLINICAL SIGNS AND PATHOMORPHOLOGICAL CHANGES IN POULTRY PULLOROSIS

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Summary: Complex and profound changes are observed in chickens infected with pullorosis. However, it is very difficult to diagnose this disease and distinguish it from other diseases based on clinical symptoms alone, so a pathological examination is advisable. The clinical signs and pathomorphological changes of chicken pullorosis are very complex; they are fundamentally different from other diseases. But a thorough analysis makes it possible to make the correct diagnosis.

Key words: Chickens, bacteria, pathogens, pathomorphology, dystrophy, catarrhal, hemorrhage, hemorrhage, inflammation, histological changes, pullorosis.

Introduction. In the economy of our republic, poultry farming occupies a special place in agriculture, and great importance is attached to the development of this industry. The development and profitability of poultry farming, which is the main branch of agriculture, depends on factors such as increasing the number of poultry in state, farm and private farms, increasing its productivity, obtaining healthy chickens, proper care for them, and protection from various diseases. Various bird diseases are considered a serious threat to poultry farming. Everyone knows that one of the most important problems of poultry farming is the large economic loss from infectious and invasive diseases, such as avian influenza, Marek's disease, as well as pullorosis, colibacillosis, coccidiosis, ascariasis, which are found among poultry. In the field of veterinary medicine, the lack of biological and chemical drugs further complicates the problem and contributes to the widespread spread of diseases.

The prevalence of pulorosis among poultry, especially among young chickens, causes great damage to the economy of many poultry farmers. The mortality rate of birds infected with this disease can reach 70%. A lot of money is spent on treating sick birds and disease control measures. Chickens that recover from the disease are stunted in growth and development and remain carriers of the disease. No special comprehensive methods and means for diagnosing, treating and preventing this disease have been developed. The use of biological products produced in foreign countries requires a lot of time and money.

The prevalence of salmonellosis (pullorosis) among poultry, especially among young chickens, causes great damage to the economy of many poultry farmers.

That poultry diseases colibacillosis and salmonellosis are widespread and cause great damage - Shukurov Sh.M., Niyazov F.A., Semenova N.V. (2001), Davlatov R.B., Niyazov F.A. (2005), Niyazov F.N., Ibodullaev F.I., M. Yusupov (2008), R.B. Davlatov (2008), A.Ya. Samuilenko, B.V. Solovyova, E.A. Nepoklonova, E.S. Voronina (2006), S.S. Yakovlev, S.V. Lenev, N.A. Drogalina, M.V. Kalmykov, O.N. .Vitkova, Yu.N. Shurahova (2008), S. Ergashev (2010), M. Amin (2008) are given in their data.

Results and their analysis. In order to solve the above problems, as a result of our scientific research, some issues of the spread of poultry diseases were studied. Epizootic strains of these diseases have been identified, their biological characteristics have been determined, and clinical signs and pathomorphological changes in avian pullorosis have been studied.

Pathoanatomical changes in avian pullorosis are quite complex and consistent. At the same time, it is noticeable that the bodies are very thin, not rigid, foamy liquid flows from the oral and nasal cavities, in some cases this liquid is mixed with blood, hyperemia forms on the mucous membranes, especially on

the conjunctiva, the cloaca becomes contaminated with liquid yellow waste, and feathers become discolored. Fullness of blood vessels is observed mainly in subcutaneous cells and in the gastrointestinal tract. All infected chickens have pinpoint hemorrhages in the serous membranes, blood vessels filled with blood.

An enlarged heart and increased pinpoint hemorrhages, accumulation of foamy mucous substance in the bronchial and alveolar spaces of the lungs, as well as the presence of several atelytic foci are noticeable..

The main and persistent changes occur in the spleen, its size increases, spotty and patchy hemorrhages are noted on its surface, and the main changes are observed in the gastrointestinal tract. That is, it is important to have 2-3 wounds of 0.5 cm each in the muscular and glandular stomach.

The disease pullorosis causes swelling in the body of chickens, that is, in the subcutaneous cells around the head, neck, wings and cloaca, a foamy liquid mixed with blood flows from the oral cavity.

At autopsy, all chickens had fullness of blood vessels in the lungs and gastrointestinal tract, and pinpoint hemorrhages in the serous membranes. The lungs are enlarged, pale red in color, with pinpoint hemorrhages on the surface, the liver is greatly enlarged, with pinpoint and spotty hemorrhages on the surface, hyperemia and hemorrhagic processes are observed in the kidneys.

The mucous membrane of the muscular stomach is represented by the presence of a black substance mixed with mucus, small pinpoint hemorrhages, erosions and ulcers. The size of the spleen is slightly enlarged, there are small hemorrhages on the surface, and the cut flesh is dark red.

In the intestine, catarrhal-hemorrhagic inflammation of the intestinal mucous membranes, spotty hemorrhages, especially several ulcers measuring 1-2 cm are found.

Thus, clinical symptoms and pathological changes in birds are very complex and fundamentally different from other diseases. But if you analyze it carefully, the correct diagnosis will be made in time and it will be possible to take disease prevention measures in time.

Pathohistological changes. In the myocardium of birds with pullorosis, the vessels are dilated and filled with blood, and various hemorrhages are observed around the muscle fibers. The spaces around the veins are significantly enlarged and swollen. The cavities of most alveoli are filled with red blood cells, the respiratory capillaries are also dilated and filled with blood elements, in some places there is stagnation of blood and focal hemorrhages. Connective tissues are loose, partially homogenized. The interstitial tissue is infiltrated with fibroblasts, leukocytes, and rarely bacterial aggregates.

Histological changes in the liver are deeper and are characterized by circulatory disorders, degeneration and inflammation of the vascular walls.

The adventitial layer of the vascular wall of the spleen is thickened, partially loosened, its fibers are homogenized. Small areas of bleeding may also be observed.

Hyperplastic processes are highly developed in the lymph nodes. Perivascular tumors form. Characteristic histological changes in the kidneys are often expressed by dilation and filling of blood vessels, diapause hemorrhages. The main changes in the gastrointestinal tract are vasodilation, fullness, focal extravasation, perivascular serous edema.

Catarrhal inflammatory processes in the intestinal mucous membranes develop sharply. Focal erosions and necrosis occur in many parts of the intestine. In chickens infected with pullulosis, the heart vessels are dilated, and around some vessels, where the endothelium is displaced, there are relatively more accumulations of cells consisting of histiocytes, lymphocytes and leukocytes. Although the histological changes in the liver are similar to the diseases of pasteurellosis and colibacillosis, they differ from them in the necrotic nodules that arise in the liver parenchyma. In some areas of the spleen, small hemorrhages and lymphoid accumulations are visible. The trabeculae are swollen, the appearance of the fibers is unclear, hemodynamic and dystrophic changes in the kidneys are highly developed, the capsule is also expanded, filled with fibrinous fluid. Histological changes in the gastrointestinal tract are very

strong and complex. Because the stimulant basically affects these organs more. These changes consist of serous-catarrhal, catarrhal-hemorrhagic inflammation, dystrophic and necrotic processes in the mucous membranes of the glandular stomach and intestines.

In conclusion, it should be noted that with pullorosis in chickens, very complex clinical and pathomorphological changes are observed in the body. Causes dystrophic, necrotic, catarrhal-hemorrhagic inflammation, especially in the intestines and liver.

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