

# POTOMORPHOLOGICAL DIFFERENTIAL DIAGNOSTICS OF PULLOROSIS AND STREPTOCOCCOS DISEASES IN POULTRY

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## Abstract

The article describes the co-occurrence, clinical signs and pathomorphological changes of pullorosis and streptococcal diseases in chickens. Information on pathological changes in the body of birds and their differential diagnosis is given.

**Keywords:** Chicks, bacteria, pathogens, differential diagnosis, pullorosis, streptococcus, pathomorphology, bacteriology, yellow peritonitis, diagnosis, dystrophy, necrotic processes, inflammation.

## Introduction

**Relevance of the topic.** The co-occurrence of infectious streptococcosis and pullorosis among poultry, especially chickens, poses problems for veterinary science and practice. Finding ways to solve these problems and developing countermeasures is an urgent issue of the day. Decree of the President of the Republic of Uzbekistan No. PF-60 of January 28, 2022 "On the new development strategy of Uzbekistan for 2022-2026", No. PQ-4015 of November 13, 2018 "Further development of poultry additional measures on the "Additional measures of state support of the livestock industry", PQ-4576 of January 29, 2020, PQ-5146 of June 14, 2021 No. "On additional measures aimed at the development of poultry farming and strengthening of the network food base", PQ-121 dated February 8, 2022 "On measures for further development of livestock breeding and strengthening of the food base", PQ-187 of March 31, 2022 "On the radical improvement of the personnel training system in the field of veterinary and animal husbandry", PQ-281 of June 15, 2022 "Measures to further improve the state support system of the poultry industry" -events" and other legal and regulatory documents related to this field, researches within this topic serve to a certain extent.

In order to solve the above problems, the main goal of our scientific research is to determine the mixed occurrence of pullorosis and streptococcal diseases in chickens, the level of their spread, the causes of the origin of the diseases, the epizootic status, and to compare their pathomorphological changes and differences from each other.

For the development of the poultry industry, it is necessary to create and implement new measures to effectively fight infectious diseases among chickens. One of the most important problems facing veterinary science is the development, improvement and implementation of measures to diagnose,



prevent and combat infectious diseases that occur among poultry, especially chickens, and cause great economic damage.

Pullorosis and streptococcal diseases of chickens are infectious diseases, septicemia and intestinal disorders in chickens, and latent bacterial carriage in chickens. All types of birds are affected by this disease. The main sources are sick and recovered birds, as well as wild birds, and in hatcheries - rodents, blood-sucking insects and others. The causative agent of the disease is isolated from the discharge from the beak of birds, from internal organs and feces.

Clinical symptoms of the disease, depending on the route of infection, the incubation period can be from one day to one week. In this case, the clinical symptoms of each disease are very complex in poultry. For example, in acute form - lethargy, drowsiness, rapid breathing, general weakness, loss of appetite, nervous conditions, catarrhal-purulent or fibrinous conjunctivitis, clouding of the cornea, diarrhea are observed. The litter is white, sometimes greenish-gray in color and smells very unpleasant. The mortality rate is 70-80%. When the diseases are mixed, sometimes lameness, swelling of the joints, signs of lung damage are noted in chicks.



The process of general clinical examination of chicks.



Pathological anatomical examination process.



Bleeding in the large intestine.



Bleeding in the ovaries.



Pathomorphological changes were detected depending on the age of the chicks and the form of disease manifestation when the internal organs of birds that died of streptococcosis and pullorosis were examined under natural conditions. When chickens were infected with streptococcus, hemodynamic disturbances, degenerative changes and necrosis were observed in the liver, kidneys and heart, followed by the formation of granulomas, hyperemia and edema in the lungs, catarrhal enteritis, additional cuticulitis, catarrhal-fibrinous colitis in chickens co-infected with pullorosis. , hyperplasia of the spleen, degeneration of nerve cells develops. When chicks are infected with pullorosis and streptococcus, there are urine salts in the urinary tract with enlarged kidneys, granular necrotic areas are visible. Foci of necrosis are observed in parenchymatous organs. A hard curd-like blue-white mass accumulates in the cecum. As a result of damage and inflammation of ovaries and fallopian tubes (ovaritis, salpingitis), the presence of yellow peritonitis, cloacitis, gray-white necrosis foci, development of dystrophic changes was observed in chickens.

### Conclusions and Recommendations:

Diseases were diagnosed on the basis of pathomorphological, bacteriological, microbiological, serological and IFA, PCR test results and bioprobe methods. This disease was prevented as a result of timely vaccination with an inactivated vaccine against poultry pullorosis. In the treatment or prevention of the disease, a mixture of two anti-streptococcus drugs is successfully used: sulfamethyl pyrimidine sodium (sulfamerazine) - 10.0 g and sulfaethyl sodium diazole (sulfaethidol) - 10.0 g per 100 ml of distilled water. 5 ml of this solution is added to 1 liter of drinking water every day for 4-5 days. The first drug is quickly absorbed through the intestinal wall, the second is slow and maintains a certain therapeutic concentration.

As a result of the common occurrence of pullorosis and streptococcal diseases among poultry, complex clinical and pathomorphological changes were observed in them. It is also advisable to vaccinate diseases on time. It is better to prevent diseases than to cure them.

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