



Pericarditis, peritonitis and perihepatitis is frequently observed in birds with CRD

Chronic respiratory Disease (CRD) (Airsacculitis)

Cause

The underlying cause of CRD is *Mycoplasma gallisepticum* (Mg). The condition is frequently triggered by respiratory viruses such as ND and IB and subsequently complicated by bacterial invasion. The main agents involved in the infection are *Mycoplasma gallisepticum* and *E. coli*. Stress caused by moving the birds, by debeaking or other operations or other unfavorable conditions e.g. cold or bad ventilation, make the birds more susceptible.

Transmission

The main problem is that parent birds infected with *Mycoplasma gallisepticum* can transmit the organism through the egg to their offspring. In addition, infection can occur by contact or by airborne dust or droplets. The incubation period varies from 4 days to 3 weeks.

Species affected

Chickens and turkeys.

Clinical signs

Young chickens (broiler chicks or layer pullets) will show respiratory distress. The birds frequently show a lack of appetite,

decreased weight gain and increased feed conversion ratios.

In adult birds the most common symptoms are sneezing, coughing and general signs of respiratory congestion. In laying birds a drop of egg production between 20-30 % can occur.

CRD does not normally cause an alarming number of deaths. The effect is more of a chronic nature causing reduced weight gain and feed conversion ratios in broilers and lower egg production in breeders and layers. In this way the overall economic loss can be very great in broilers but less dramatic in breeders and layers.

Internal lesions

A reddish inflamed trachea and/or cheesy exudate in air sacs, especially in complicated cases (e.g. with secondary *E. coli* infections) are observed. In mild Mg infections the only lesion might be slight mucus in trachea and a cloudy or light froth in the air sacs. Turkeys with Mg infection usually have swollen sinuses under the eyes. Diagnosis of Mg infection can be made by blood testing of chickens, post-mortem

examination and ultimately by isolating the causative Mg organism from tracheas or air sacs of affected birds.

Differential diagnosis

Respiratory virus infection (Newcastle disease or infectious bronchitis) with secondary infection (*E. coli*, etc.) can give similar lesions.

Treatment

Treatment of Mg-infected chickens or turkeys with suitable antibiotics or chemotherapeutics has been found to be of economic value. However, control by medication or vaccination and eradication of Mg infections has been by far the most effective method of combating the disease. Fertile eggs from infected birds can be treated with antibiotics such as tylosin to eliminate the *Mycoplasma gallisepticum* organisms. Methods used are the injection of fertile eggs or egg dipping. Blood serum testing of breeder chickens for Mg antibodies has become a routine to test flocks for a Mg infection.