Poultry**health**



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083 - Chicken infectious anaemia II

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Clinical signs

The only specific sign is that of anaemia which peaks two weeks after infection. The anaemia is characterised by a depressed (6-27%) haematocrit. Affected birds are pale and depressed and weight gain loss can occur. Mortality often occurs and can go as high as 30%. Survivors recover well but secondary complications can occur. Morbidity and mortality increase if chicks are co-infected with Marek's disease, reticuloendotheliosis or Gumboro disease due to an induced immunosuppression. Certain strains of reovirus can behave in a similar fashion.

Pathology

Thymic atrophy is seen and this can be almost total. Bone marrow, especially in the femur where it is easily observed, is fatty and paler than normal appearing yellowish or pinkish in colour. Mild atrophy of the Bursa of Fabricius is seen in some birds.

In the haemorrhagic form intracutaneous, subcutaneous and intramuscular haemorrhages may be seen. The first two of these may become gangrenous as a consequence of secondary bacterial infection. Affected chicks may appear to be predisposed to pododermatitis.

Immunity

Most of the protective response comes from antibody formation.

Maternally derived antibodies give complete protection against chicken infectious anaemia in young chicks but these can be reduced by various factors including Gumboro disease virus infection. Impaired immune response following chicken infectious anaemia infection may arise from damage to haematopoietic and lymphopoietic tissues and subsequent lymphoid depletion.

Clinical or subclinical chicken infectious anaemia is linked to increased susceptibility to other pathogens including bacterial and fungal infections, adenoviruses, reoviruses and infectious bronchitis. In commercial broilers there is a significant association between chicken infectious anaemia infection and thymic atrophy and coccidiosis, gangrenous dermatitis and respiratory disease.

Diagnosis

Diagnosis is based on clinical and post-mortem findings coupled to serology and serology of parents.

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