

CHRONIC RESPIRATORY DISEASE



This disease
is known to
occur in
Afghanistan.



1. Definition

Chronic respiratory disease (CRD), caused by a mycoplasma bacteria, is a problem of chickens and turkeys, characterized as an insidious illness, with major signs in the respiratory tract, and resulting in lowered production and major economic losses.

2. Etiology

CRD is caused by *Mycoplasma gallisepticum* (MG), a bacteria. This same organism, in addition to causing CRD in turkeys, will also cause infectious sinusitis in turkeys, with filling of the infraorbital sinus with caseous and purulent exudate. In chickens with CRD, *Mycoplasma gallisepticum* may move further into the respiratory tract to cause, in concert with *E. coli*, airsacculitis.

3. Transmission

Mycoplasma gallisepticum is transmitted from bird to bird by direct contact. Some birds may be carriers and introduce the organism into a flock. A major means of MG transmission is through eggs. Infected hens lay eggs that contain the organism and the chick is infected at hatching.

4. Species affected

Both chickens and turkeys are susceptible to infection with MG.

5. Clinical signs

CRD can be triggered by Newcastle disease or infectious bronchitis. These maladies allow the MG to gain hold within the body and create longer term inflammation. Respiratory signs are often mild and referable to the upper respiratory tract, with nasal discharge, snicking, coughing and sneezing. Growth rate is poor. If the organism progresses into the air sac and teams up with *E. coli* to create airsacculitis, clinical disease can be more severe with dyspnea, depression, marked drop in feed consumption, and rapid weight loss.

6. Pathologic findings

With CRD, the nasal sinuses are filled with catarrhal exudates. If CRD has progressed to airsacculitis, the air sacs can be filled with fibrino-catarrhal exudates.

7. Diagnosis

Tentative diagnosis of CRD is based on flock history, clinical signs and pathologic lesions. Definitive diagnosis is usually via serology - testing for antibodies to MG in the chickens. As with many mycoplasmas, MG is very difficult to grow in the laboratory.

8. Treatment

MG is sensitive to some antibiotics (tylosin, aureomycin, gallimycin, terramycin) and these can be given by injections or through the drinking water or feed. Treatment should be at a high enough level to kill all the organisms. If not, disease may be cleared, but the bacteria will persist to cause problems again.

9. Prevention and Control

Preventing the disease requires attention to new introductions and purchasing hatching stock from known MG-free sources. Once diagnosed, treatment with high levels of antibiotics will help to eradicate

the disease from the flock. MG does not survive well in the environment and is very susceptible to most disinfectants.



Chronic respiratory disease - nasal sinuses contain abundant mucopurulent exudate.