



Ornithobacterium rhinotracheale (OR) Infection

Cause

Ornithobacterium rhinotracheale is a gram-negative rod responsible for causing infections in chickens and turkeys of all ages.

Transmission

Horizontal transmission from bird to bird and by infected fomites. Infected breeder hens may transmit the disease agent vertically to their offspring.

Clinical signs and gross lesions:

OR may cause a respiratory disease in turkeys, usually between 2-6 and 12-20 weeks of age. The birds may show respiratory disease with watery eyes and swelling of the sinus infraorbitalis. Broilers may also show respiratory signs after infection at around 4 weeks of age. A severe purulent pneumonia, accompanied by airsacculitis and pericarditis may be found in broilers as well as in turkeys. Affected birds also show growth retardation. Concomitant viral infections may intensify the severity of the lesions.

Diagnosis

Blood serum testing using a commercially available ELISA for the detection of specific antibodies against OR and the finding of specific lesions are indicative of OR infection. Isolation of the organism and its biochemical determination may be attempted but care

should be taken that these are carried out using appropriate methods in order to avoid unreliable results. Differential diagnose with bacteria causing similar disease patterns is recommended (E. coli, P. multocida, MG).

Treatment and control

OR infections may be treated with broad-spectrum antibiotics with variable degrees of success. An inactivated vaccine for broiler breeders and turkey poults is available.