



Lecture title:

Lecturer Affiliation:

Summary:

Ornithobacterium rhinotracheale (ORT) is an acute highly contagious disease of chickens and turkeys. The infection has been recognized in many countries worldwide and incriminated as an additional causative agent in the respiratory diseases complex. The disease is mostly accompanied with heavy economic losses by increased mortality rates, increased medication costs, increased condemnation rates and drop in egg production. *O. rhinotracheale* is a pleomorphic Gram negative rod which grows well (but slowly) on blood agar plates. After 24 hours incubation at 37 °C in 7.5% CO₂, OR colonies are pinpoint size and show no hemolysis. No growth is observed on MacConkey agar plates.

Susceptibility:

O. rhinotracheale has been isolated from broiler (2-3 weeks) and layer chickens, turkey and chicken breeders, meat turkey game birds, pigeons, pheasants, partridges, and quail. Isolates are most frequently obtained from respiratory sites such as the trachea, sinuses, and lungs.

predisposing factor:

- 1- Bad management.
- 2- Concurrent viral and bacterial infection.
- 3- Vaccines.

Route of Infection and Transmission:

- 1- Respiratory route via aerosol.
- 2- Vertical.
- 3- Animal vectors.
- 4- Wild birds act as a potential reservoir.

CLINICAL SIGNS:

Mild respiratory signs are most frequently observed with only a slight increase in mortality. Older birds may experience more severe respiratory signs with gasping, marked respiratory effort and an increase in mortality.

LESIONS:

Mild sinusitis, tracheitis, or unilateral or bilateral lung consolidation may be observed. Turkeys frequently



have blood-stained mucous in the mouth. Serofibrinous pleuropneumonia and inflammation of the air sacs are noted macroscopically and histopathologically

DIAGNOSIS:

Bacterial culture is required to demonstrate *Ohinotracheale*'s involvement in respiratory disease. Care must be taken to prevent its overgrowth by other bacteria. In turkeys, differentiation from *Pasteurella multocida*, *Riemerella anatipestifer* and/or *Escherichia coli* require bacterial culture

CONTROL:

Little is known on the prevention of *O. rhinotracheale*. It is frequently present in consecutive flocks on the same ranch. Currently, there is no commercial vaccine available but autogenous bacterins have been used with some apparent benefit