



Tikrit University
College of Veterinary Medicine

Infectious Laryngotracheitis

Subject name: Poultry diseases

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Lecturers link

Infectious Laryngotracheitis (LT & ILT)

Definition:

Infectious laryngotracheitis (ILT) is an acute viral disease of chickens, and, rarely, Pheasants and peafowl characterized by marked dyspnea, coughing, gasping, and expectoration of bloody exudate.

Etiology:

This disease is caused by double stranded DNA virus called *Gallid herpes virus* belonging to family *Herpes viridae*, subfamily *Alpha herpes virinae*. This virus surrounded by envelope of lipid substance and can be propagated on CAM (Chorio alloantoic membrane).

Incubation period:

The incubation period varies from 4 to 12 days.

Susceptibility:

Chickens and pheasants are natural hosts for **ILT**.

Transmission:

1. The infection occurs from bird to bird by the respiratory route.
2. Also may it occur by contaminated equipment, visitors, shoes, clothing, egg boxes and cages.

Clinical signs:

1. Watery eyes and conjunctivitis.
2. Coughing, sneezing, wheezing, gurgling sound and shaking of the head to disposed exudate plugs in the trachea follow.
3. Affected chickens extend their head and neck to facilitate breathing.
4. Blood- mucus exudates are expelled from the trachea of affected birds.
5. Many birds die because asphyxiation
6. Egg production is reduced.
7. Although morbidity is high, mortality rates are low.

P.M. lesions:

1. Tracheae are inflamed with excessive the mucus and blood on the tracheal lining.
2. Air sacs opaque and thickened ,it may contain excess blood or fluid.
3. Present cheesy material in the trachea which may lead to block the passage and cause suffocation.

Histopathology

Laryngotracheitis is characterized by the development of pathognomonic intranuclear inclusion bodies in respiratory epithelial cells. Intranuclear inclusion bodies may be detected in tissues stained with Giemsa or Hematoxylin and Eosin.

Diagnosis:

1. Diagnosis of ILT based on demonstration of intranuclear inclusion bodies in the epithelium (cell lining) of the trachea.
2. The fluorescent antibody technique may be used to demonstrate ILT antigen in respiratory mucosa.
3. The ILT virus can be isolated using SPF embryos or tissue culture with identification applying immunofluorescence or serum-virus neutralization.
4. ELISA & Agar-Gel Immunodiffusion (AGID) test.

Differential diagnosis:

ILT must be differentiated from other viral respiratory infections such as Newcastle disease , Avian Influenza, Wet Pox form, Infectious Bronchitis and Mycoplasmosis.

Treatment:

1. Administer antibiotics to control secondary infection.
2. Mass vaccination by the spray or drinking water method is not recommended for large commercial or caged flocks. Individual bird administration by the eye-drop route is suggested. Follow the manufacturer's instructions.
3. In small poultry flocks, use a swab to remove any tracheal plugs from gasping birds, and vaccinate by the eye-drop method.