Infectious Laryngotracheitis

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Infectious laryngotracheitis (ILT) is a highly contagious respiratory viral disease of chickens that has a worldwide distribution and can cause significant financial losses during periodic outbreaks.

The disease was first described in 1925 in a flock of chickens in Rhode Island in the United States. However, other reports indicate that it likely existed earlier.
Thermostability of virus infectivity

Considerable variation has been reported regarding thermostability of the virus including:

- Inactivation in 15 minutes at 55°C or in 48 hr at 38°C.
- Surviving 1 hr at 56°C.
- Inactivation in 44 hr at 37°C (in tracheal tissue within chicken carcass).
- Inactivation in 5 hr at 25°C (in chorioallantoic membranes).
- Early reports indicated stability of virus in tracheal exudates and chicken carcasses for 10-100 days at ambient temperatures of 13-23°C.
Cause

- DNA virus
  - Order Herpesvirales
  - Family Herpesviridae
    - Subfamily Alphaherpesvirinae
    - Genus Iltovirus
    - Species Gallid Herpesvirus 1
Infectious laryngotracheitis virus particle identified by negative-stain electron microscopy in infected cell culture supernatant fluid. An icosahedral nucleocapsid, approximately 100 nm in diameter, is seen to be partially enclosed by an envelope.
53-day-old broiler. Excessive lacrimation (so-called “watery eye”) is a characteristic early clinical sign of ILT.
53-day-old broiler. There is excessive lacrimation. Eyelids and tissues around them are swollen and slightly reddened.
55-day-old broiler. Swelling of eyelids is evident.
Air sac, 42-day-old broiler breeder pullet. Higher magnification of the epithelial cells with intranuclear inclusion bodies in the previous slide.