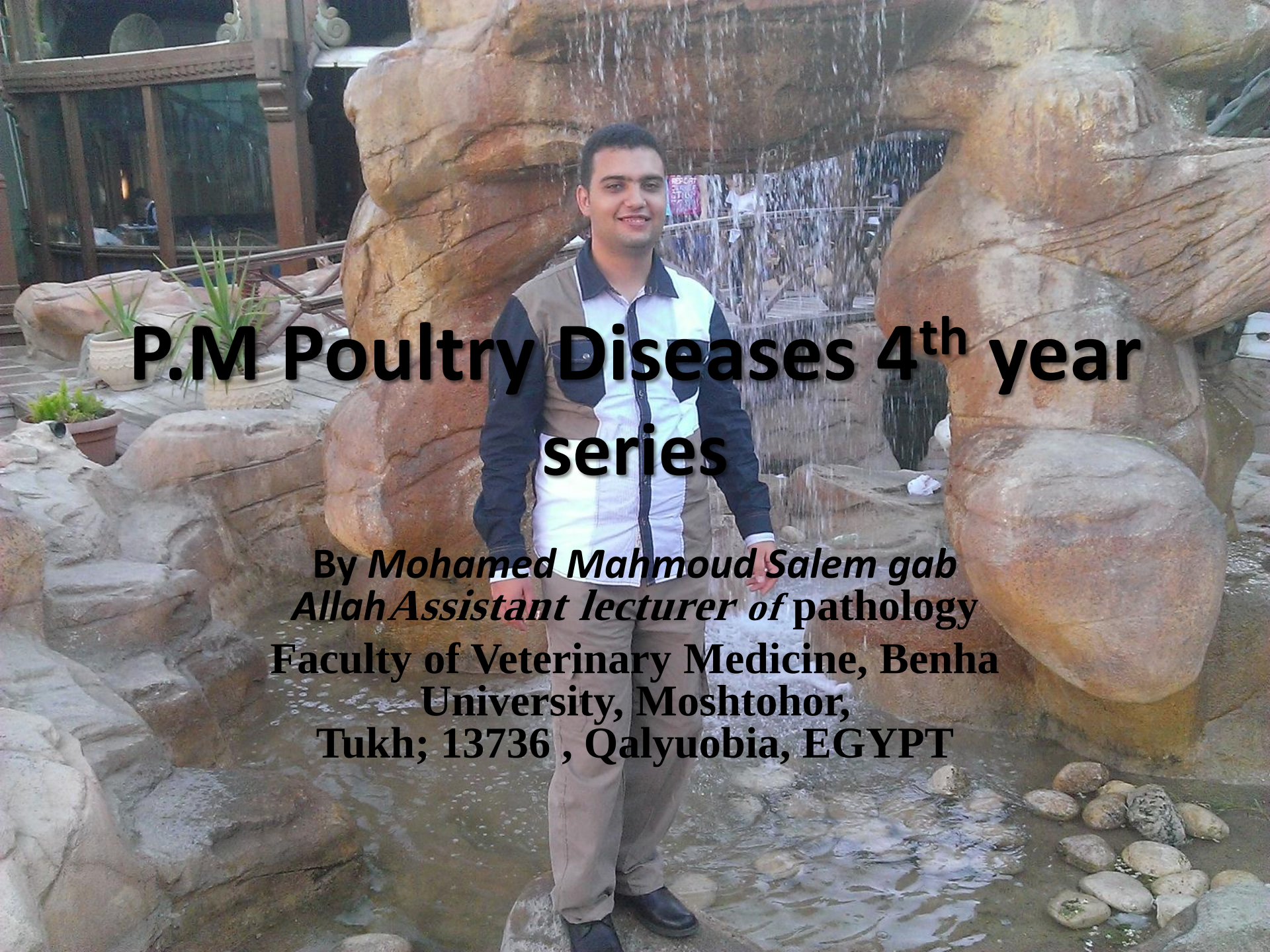

P.M Poultry Diseases 4th year series

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LARYNGOTRACHEITIS

233. The mucous coats of the larynx and the trachea are catarrhally haemorrhagically to fibrinously inflamed. Most outbreaks are encountered between the age of 4 and 14 weeks although the disease affects fowl of any age. LT is caused by a herpesvirus that is relatively resistant.

LARYNGOTRACHEITIS

232. Laryngotracheitis (LT) is a viral infection in hens, pheasants and peacocks characterized by catarrhal haemorrhagic to fibrinous inflammation
of the respiratory tract. It is manifested
in laryngotracheal and conjunctival form. In the laryngotracheal form, suffocation, rales and cough are observed. The head and the neck are strongly extended forward and upward during inspiration.

LARYNGOTRACHEITIS

234. Haemorrhagic laryngotracheitis. The morbidity rate of LT reaches 50-70% and the death rate: 10-20%.

Often, it goes on as a complicated infection after the involvement of *E. coli, St. aureus,* M . *gallisepticum* etc.

LARYNGOTRACHEITIS

235. In some cases, casts of haemorrhagic or fibrinous exudate are formed that could almost completely obturate the larynx and the trachea. Source of the infection are sick and convalescent birds, the latter being prolonged carriers of the virus (up to 1 - 2 years). With this regard, a certain stationarity is observed.

LARYNGOTRACHEITIS

236. In the conjunctival form of LT, wet eyes, tear secretion and oedema of infraorbital sinuses are observed, especially in a complicated infection. The typical clinical and morphological signs are sufficient to assume the presence of LT. The diagnosis is confirmed with the detection of intranuclear inclusion bodies in the trachea throughout the histological study in the early stages of the disease, serological studies (VN, ELISA) etc. LT should be differentiated from I B, SHS, M. *synoviae* infections etc. Premises, contamined with the LT virus, should be freed, cleansed, disinfected and occupied again after 5 - 6 weeks. The vaccination of unaffected birds and these from other premises of the infected farm could protect
and stop subsequent outbreaks

LARYNGOTRACHEITIS

Infectious Laryngeotracheitis

Eye :	conjunctivitis
Nasal sinuses :	catarrhal rhinitis
Larynx :	laryngitis
Trachea :	haemorrhagic inflammation
	necrosis
Lung :	pneumonic foci (secondary)

Formation of intranuclear inclusion bodies

ORGAN : Adult chicken

LESIONS : Respiratory manifestation with extended head and neck (dyspnea)

SUSP.DIS. : ILT

Marked dyspnea due to ILT - commercial pullets, 10 weeks of age.

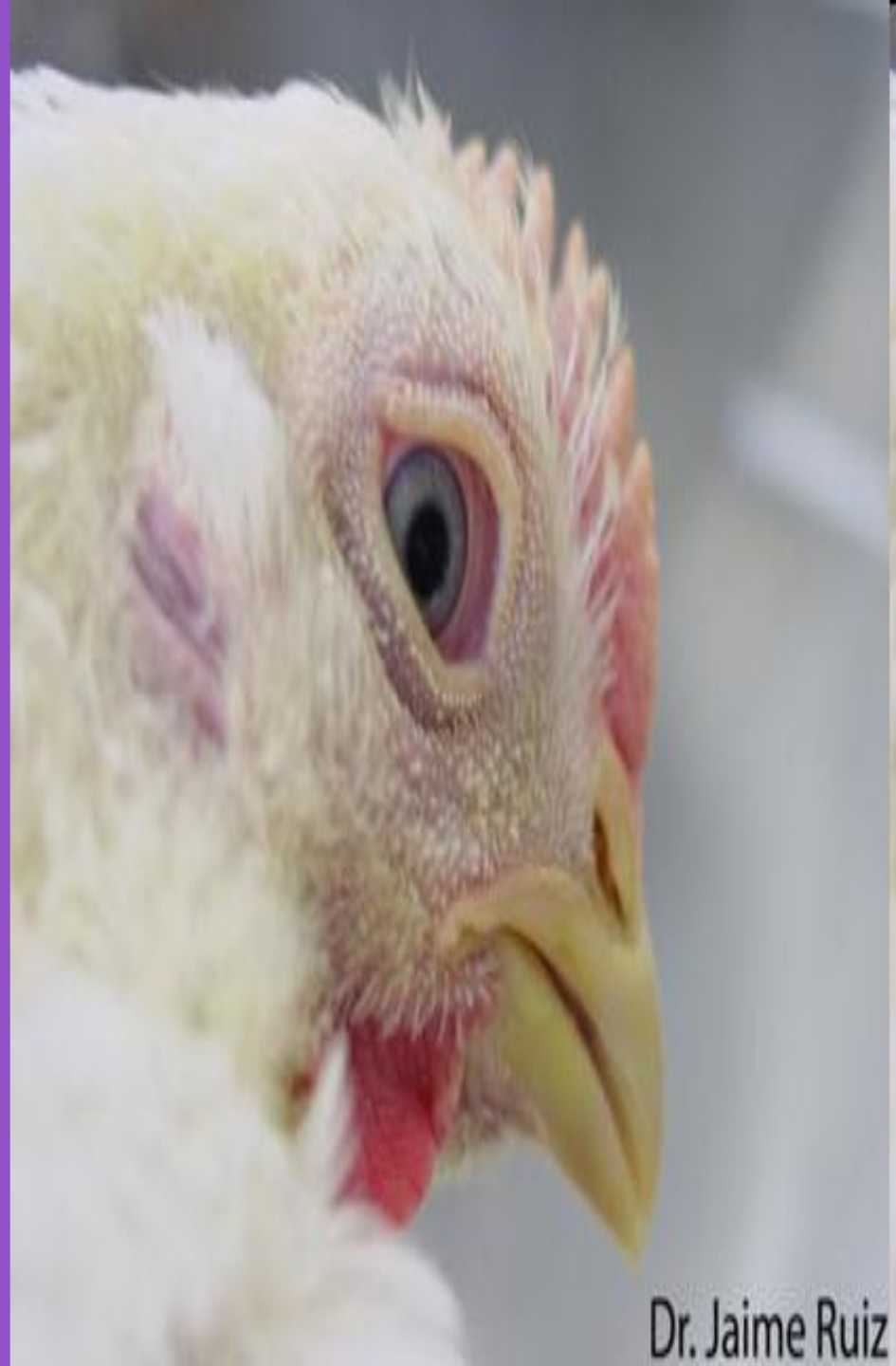
Monolateral adherent eyelids - characteristic sign of ILT (conjunctivitis

ORGAN : Trachea
LESIONS : Hemorrhagic trachities
SUSP.DIS. : ILT

ORGAN : Trachea
LESIONS : Caseous trachitis mixed with blood
SUSP.DIS. : ILT

laryngotracheitis

- Clinical Description
- **The clinical presentation of laryngotracheitis is variable and the severity of signs is influenced by the pathotype of the virus as well as environmental and host factors. In the mild enzootic form of the infection, chickens may become unthrifty, experience drops in egg production, and may develop ocular and respiratory signs. In this photo, the chicken can be seen to have conjunctivitis, excessive lacrimation, and swelling of the periorbital region and infraorbital sinuses. In the uncomplicated mild form of the infection, morbidity is approximately 5% and the mortality is very low.**



laryngotracheitis

- Clinical Description
- **The chicken on the right is exhibiting signs of severe conjunctivitis, with swelling and redness of the conjunctiva and surrounding periorbital tissues as well as copious yellow ocular discharge. Such findings are common in laryngotracheitis. Most chickens will recover from the infection within 10-14 days, if the infection is not complicated by immunosuppression or a secondary infection. A normal chicken is shown on the left for comparison.**

laryngotracheitis

- Clinical Description
- **In laryngotracheitis, conjunctivitus is often accompanied by nasal discharge, as seen here.**

laryngotracheitis

- Clinical Description
- **This chicken with laryngotracheitis infection has conjunctivitis and is exhibiting open-mouth breathing, a sign of respiratory distress. In severe epizootic forms of laryngotracheitis, chickens may show significant respiratory signs including coughing, rales, dyspnea, and gasping.**

laryngotracheitis

- Clinical Description
- **These chickens, infected with laryngotracheitis, are exhibiting open-mouth breathing and other severe respiratory signs. Unlike the mild enzootic forms of laryngotracheitis, the morbidity in the severe epizootic forms of the disease is 90-100% and the mortality is typically 10-20%.**

laryngotracheitis

- Clinical Description
- **In severe epizootic forms of laryngotracheitis infection, expectoration of bloody mucus may occur, as seen here.**

laryngotracheitis

- Clinical Description
- **Cloacal inflammation due to local laryngotracheitis virus replication. This lesion can be observed in cases where the vaccine was administered in the cloaca.**

laryngotracheitis

- Clinical Description
- **The cloacal mucosa has been exposed to show the inflammation resulting from localized laryngotracheitis virus replication in the cloacal tissue. This lesion can be observed in cases where the vaccine was administered in the cloaca.**

laryngotracheitis

- Morphologic Diagnosis
- **Trachea: Moderate acute multifocal hemorrhage**
- Clinical Description
- **There are multiple strains of laryngotracheitis virus, producing a range of mild to severe tissue lesions. On post-mortem examination, the trachea and larynx are the most common areas to find gross lesions. Here the trachea has been opened revealing diffuse inflammation and hemorrhages. These are common gross lesions associated with the more severe epizootic form of the viral infection.**
- Pathologic Description
- **The mucosal surface of the trachea shows numerous small, sometimes coalescing, bright red foci (petechiae.(**

laryngotracheitis

- Morphologic Diagnosis
- **Trachea: Mild to moderate acute hemorrhage**
- Clinical Description
- **This image depicts the varying degree to which laryngotracheitis can produce lesions in the trachea and larynx of chickens. In laryngotracheitis, tracheal lesions can range from mild mucus accumulation in the lumen to varying degrees of inflammation, necrosis, and hemorrhage associated with epithelial damage.**
- Pathologic Description
- **This image shows the trachea of three birds infected with laryngotracheitis. The trachea at the bottom of the image is least affected, while the one at the top of the image is most affected. The mucosal surface of each organ is stippled by varying degrees of bright red hemorrhage.**

laryngotracheitis

- Clinical Description
- **In severe epizootic forms of laryngotracheitis, severe tracheal hemorrhage and necrosis, such as this, can be found.**

laryngotracheitis

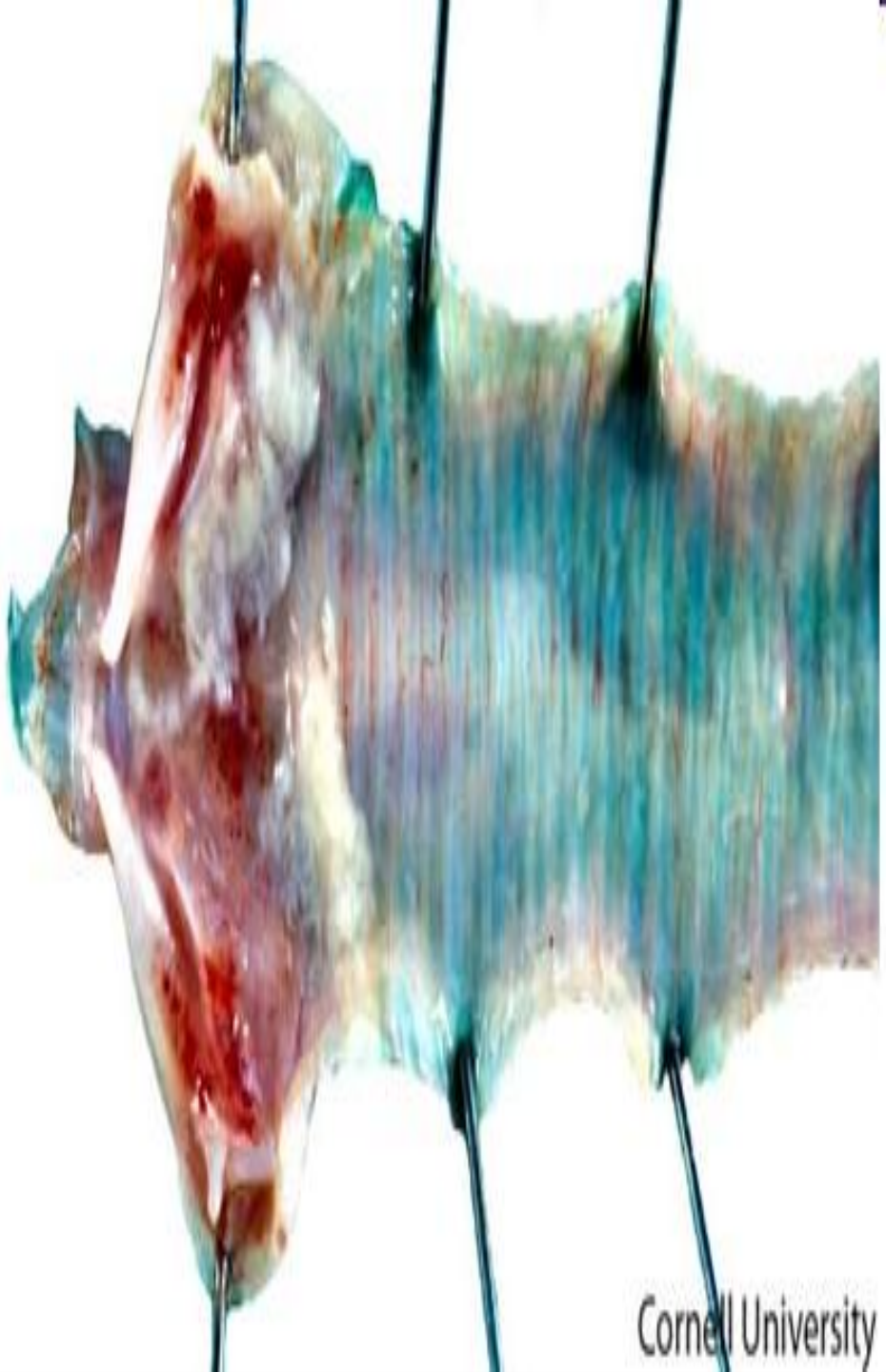
- Clinical Description
- **This photo shows hemorrhagic exudate in the tracheal lumen caused by laryngotracheitis infection. In laryngotracheitis infections, exudate may range from mild mucus accumulations to diptheritic or hemorrhagic casts.**

laryngotracheitis

- Clinical Description
- **Hemorrhages in the trachea related to laryngotracheitis infection. This gross image shows bloody exudate in the tracheal lumen.**

laryngotracheitis

- Clinical Description
- **Mucopurulent exudate in the tracheal lumen and mild hemorrhages in the larynx caused by laryngotracheitis infection.**



laryngotracheitis

- Clinical Description
- **This image shows plugs of caseous exudate occluding the upper trachea of a chicken infected with laryngotracheitis. In cases such as this, birds will show signs of dysnea including open-mouth breathing and gasping.**

laryngotracheitis

- Clinical Description
- **Severe diphtheritic changes in the trachea due to laryngotracheitis infection. These lesions are one of the most common lesions observed with this viral infection.**

laryngotracheitis

- Clinical Description
- **Diphtheritic changes along the entire length of trachea caused by laryngotracheitis infection.**

laryngotracheitis

- Clinical Description
- **Diphtheritic changes in the trachea and focal areas of hemorrhages in the tracheal wall and larynx caused by laryngotracheitis infection.**

laryngotracheitis

- Clinical Description
- **Diphtheritic changes with hemorrhages in the trachea caused by laryngotracheitis infection.**

laryngotracheitis

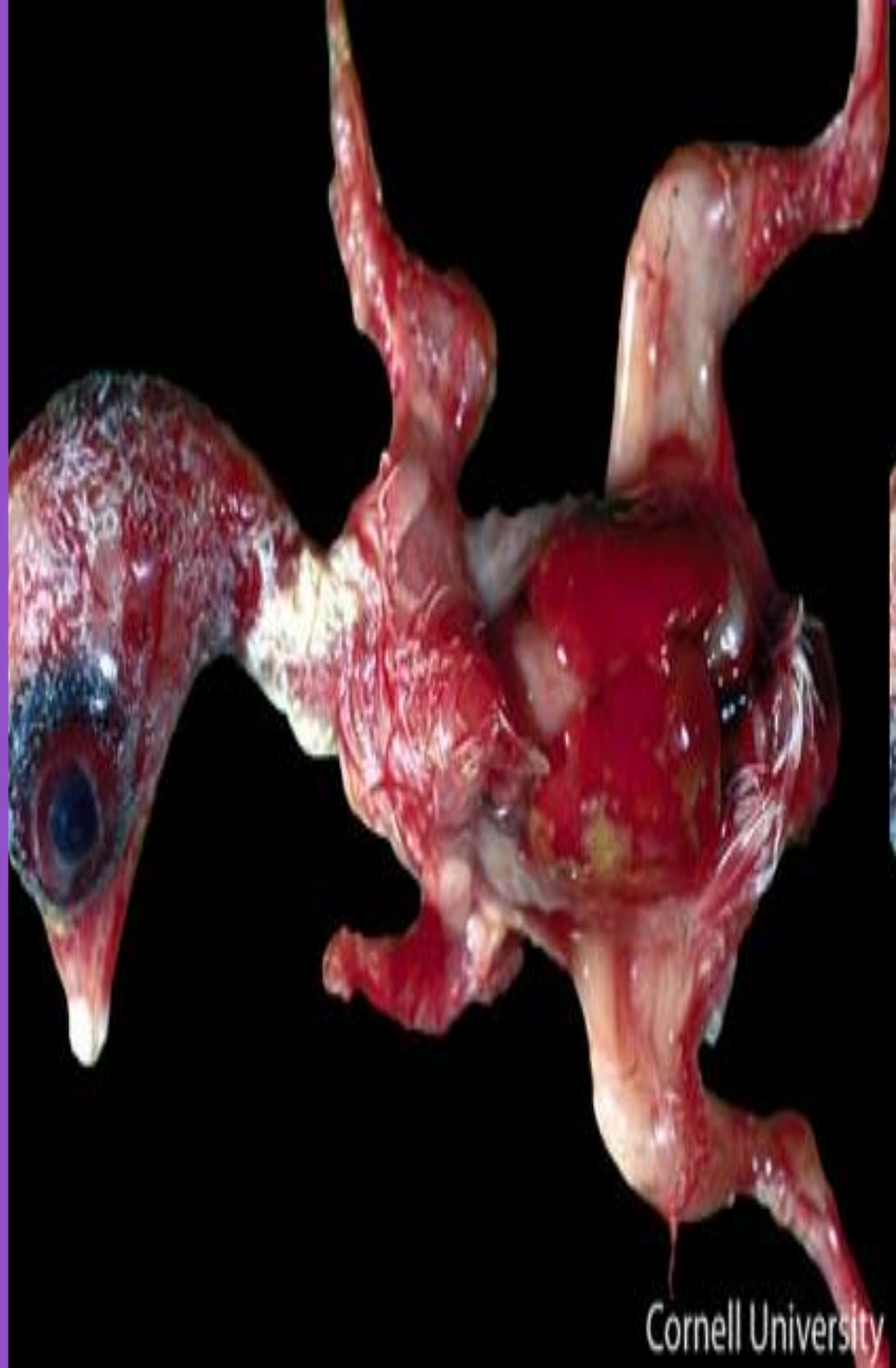
- Clinical Description
- **This photo shows a cross section of the trachea taken from a chicken infected with laryngotracheitis virus. The lumen of the trachea is completely occluded with exudate. A normal tracheal lumen is shown on the right for comparison.**

laryngotracheitis

- Clinical Description
- **This chicken embryo was inoculated with laryngotracheitis virus. Opaque plaques have formed on the chorioallantoic membrane (CAM). These plaques result from necrosis and proliferative tissue reactions. After inoculation of the embryo with laryngotracheitis virus, these plaques can be observed as early as 2 days post inoculation and the embryos may die within 2 to 12 days. The lesions associated with viral replication can be confirmed by performing histopathology of the CAM. This test is performed in the laboratory for viral replication purposes.**

laryngotracheitis

- Clinical Description
- **Generalized body congestion and fibrinous perihepatitis after inoculation of chicken embryo with laryngotracheitis virus.**



laryngotracheitis

- Clinical Description
- **General body congestion and hepatitis after inoculation of chicken embryo with laryngotracheitis virus.**

laryngotracheitis

- Clinical Description
- **White focal necrosis on green discolored liver after inoculation of chicken embryo with laryngotracheitis virus.**

laryngotracheitis

- Clinical Description
- **Areas of hemorrhages and a pale discolored liver following inoculation of a chicken embryo with laryngotracheitis virus.**

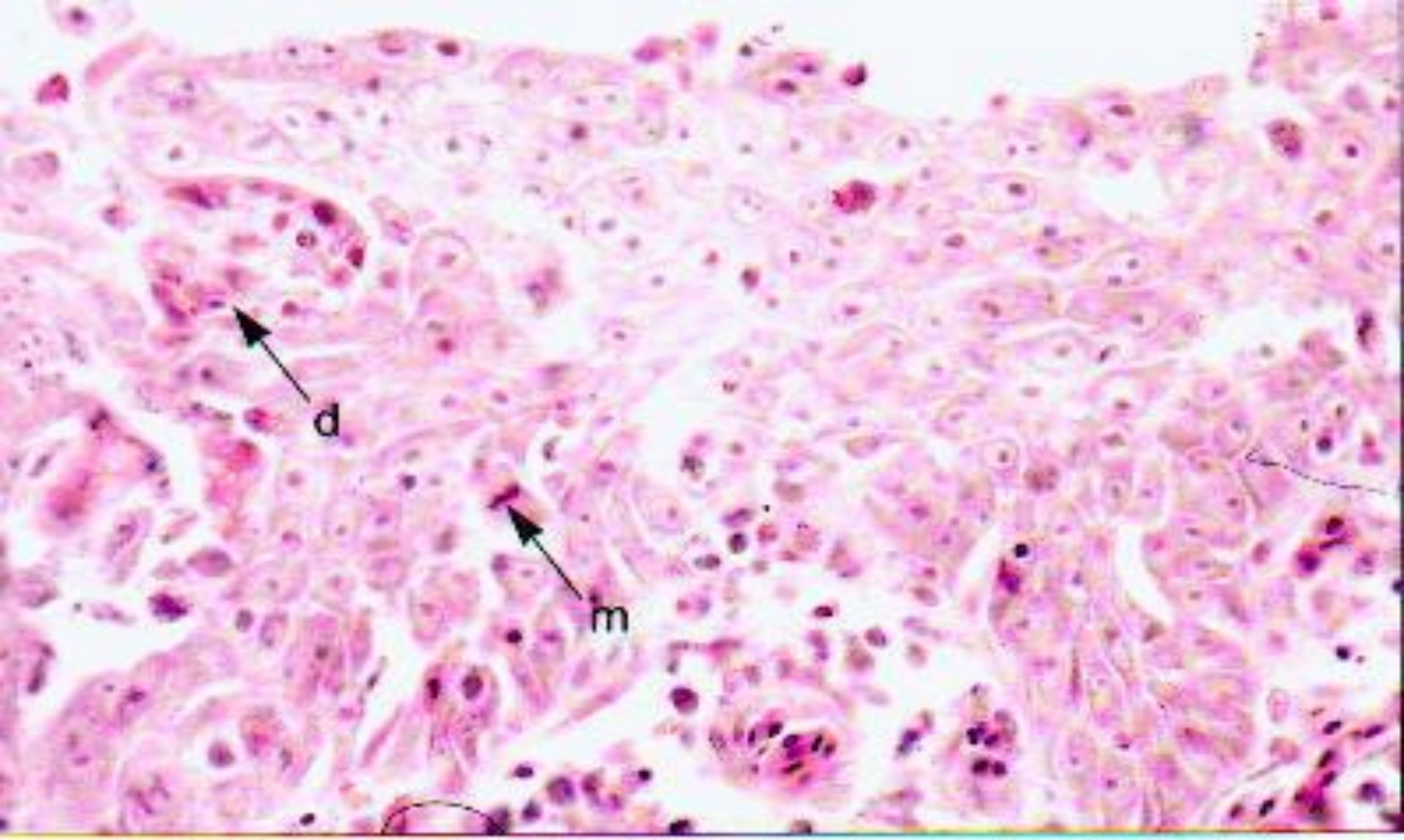
ORGAN : Trachea
LESIONS : Hemorrhagic tracheities
SUSP.DIS. : ILT

Infectious laryngeotracheitis

blood clot in the trachea

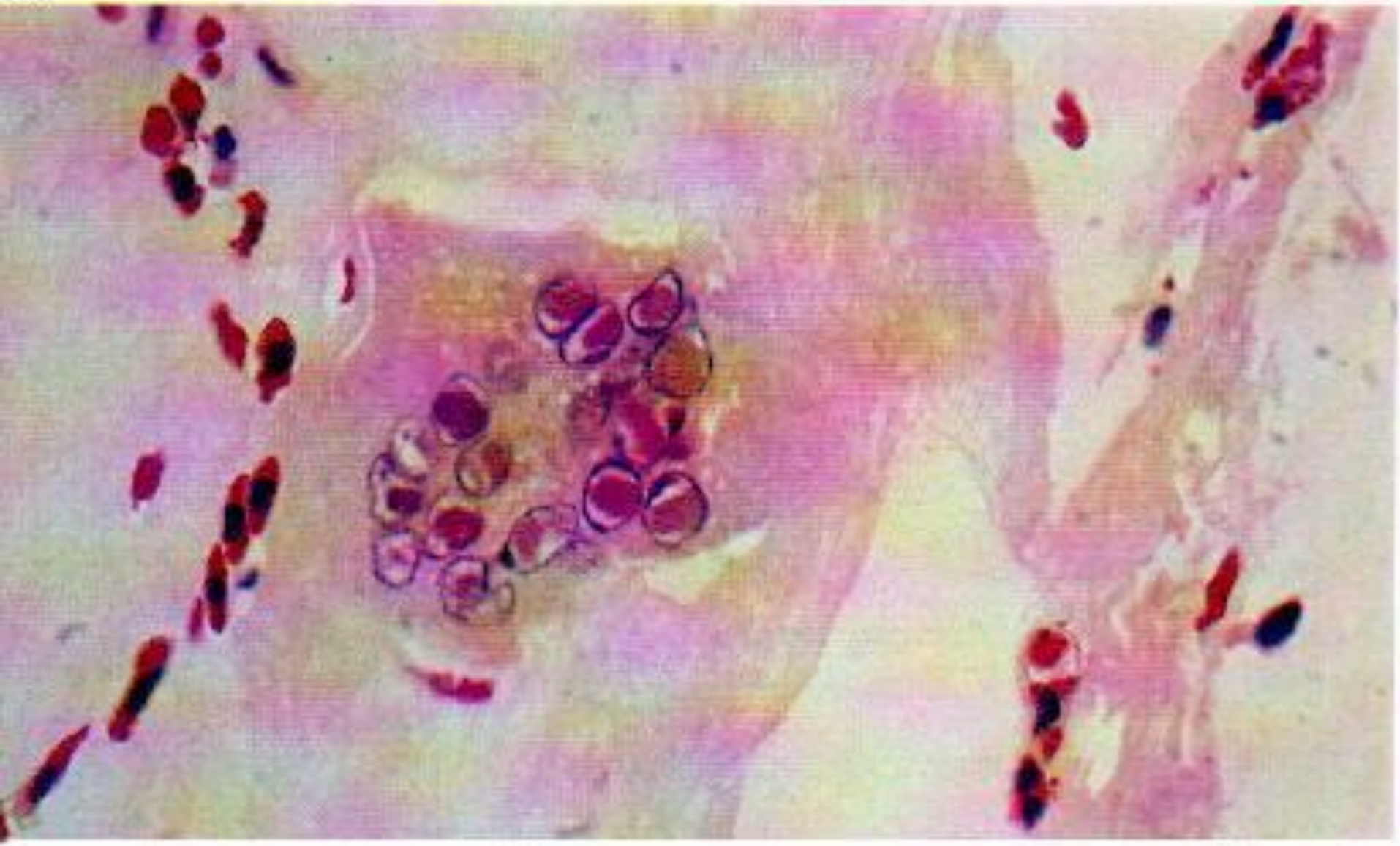
Severe hemorrhage into the tracheal lumen.

Haemorrhages into the lumen of tha trachea. This blood is the cause of asphyxia and death.



Tracheitis (Infectious laryngeotracheitis)

The tracheal mucosa is undergoing repair degenerating cells (d) and plump elongated regenerating cells with mitotic activity (m) are seen



Infectious laryngeotracheitis

a group of desquamated tracheal epithelial nuclei in the lumen of the larynx showing eosinophilic intranuclear inclusions