

PNEUMOVIRUS INFECTIONS

(PV)

by

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Viral infection of upper respiratory tract of chickens and turkey Ch. By respiratory signs, lacrimation ,cellulitis of periorbital sinus and s.c. tissues of head with drop in egg production.

****In chicken → swollen head syndrome (SHS).**

****In turkey -- → turkey rhinotrachitis (TRT).**

VIRUS:

RNA of Genus Pnemovirus related to PMV-group. No HA or Nu enzymes. Virus can be isolated only at early infection from nasal secretion and tissue scraped from .s.c. of eye, head, and trachea

.In chicken embryo- → serial passage → deaths

In TC from tracheal organ culture of chicken or turkey . embryo → cell necrosis and syncytia

**Serologically virus isolates are not related and can
: be grouped according to
: surface GLUCOPROTEIN into 2 groups**



. a. UK isolates.

b. European isolates

complicating factors

Pv needs complicating factors to induce the clinical conditions including :

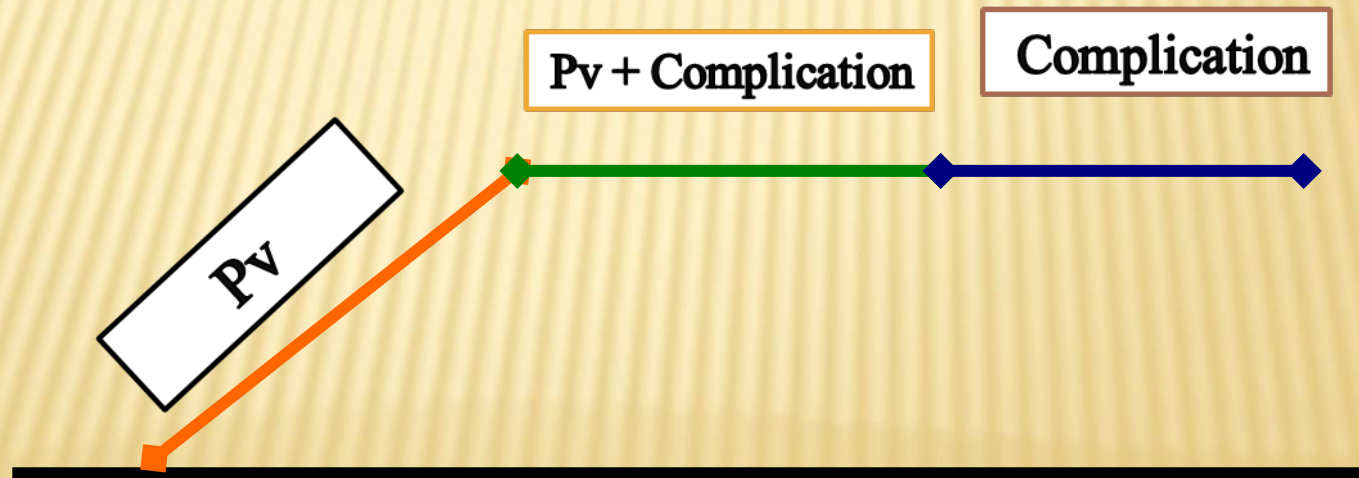
- 1. Bad Hygiene : Ammonia , Humidity....**
- 2. Bacteria: E.coli., Mycoplasma, strept.**
- 3. Viruses : ND , IB...**

***Virus pathogenicity varied according to general health, immunity
.and age***

Transmission:

Direct or indirect contact and droplet infection.

Clinical signs take three fases each about 7 days.



swollen head syndrome

SIGNS:

(SHS)

1. BROILERS:

Severe respiratory signs ,nasal and ocular discharge, swollen of sinus, edema in eye lids and s.c tissue of head.

:BROILER BREEDERS. 2

Swollen of infra- and preiobital sinuses , torticollis, cerebral disorientation and depression in 4% of the flock
Respiratory signs , mortality 1-2 % uncomplicated and 2-.20% in complicated

. Drop in egg production with change in quality

Feathers of wing soiled with nasal discharge

LESIONS:

Mucoid rhinitis, trachitis, s.c. edema of head, wattles, and neck with cellulites. Distention of sinuses with mucoid casinos exudates. Conjunctivitis leads to panophalmitis.

Pericarditis and preihepatitis airsaculitis and pneumonia.



TURKEY RENOTRACHITIS

(TRT)

SIGNS:

:IN POULTS. 1

Respiratory signs ,rales, sneezing, frothy nasal discharge and foamy conjunctivitis, swollen of infraorbital sinus, submandibular edema. Mortality .4-90 % , while morbidity reach 100%

:IN ADULT.2

.Slight respiratory signs, drop in egg production up to 70%

LESION:

days ; grayish 1-7
watery to mucoid
exudates in nasal
, cavity, conjunctivitis

Trachitis, sinus contain
watery to carious
exudates. S.c.
.exudates

After 7 days lesions of
.complicating organism



DIAGNOSIS:

- 1. Isolation of virus at early infection.**
- 2. Inoculation of healthy susceptible poult.**
- 3. Detection of antigen in tissue samples by PCR.**
- 4. Detection of antibody 7-10 dpi. by ELISA or NT..**

Defferential diagnosis:

:Chickens.1

..Wattle form of FC ,IC, vvND , AI , Vit A

: Turkey. 2

.Mycoplasma , AI, ORT

TREATMENT:

- 1. Hygienic measures → Good ventilation.**
- 2. Chemotherapy for complication.**

:PREVENTION

- .Hyagenic measures.**
- 2. Separation of species.1**

:Vaccination.3

- :a. Live attenuated vaccine for young birds**

.Vaccine A → Protection against A&B isolates. 1

.Vaccine B → Protect only against B isolates.2

.Bivalent vaccine A&B.3

.B. Inactivated vaccine for layer and breeder

NB: Use of bivalent vaccine in area where two types are present or untyped virus

**THANK
YOU**