



Tikrit University
College of Veterinary Medicine

Reticuloendotheliosis

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Lecturers link



Reticuloendotheliosis

Introduction

Reticuloendotheliosis (RE) designates a group of pathologic syndromes in several avian species include 1) a runting disease syndrome, 2) chronic neoplasia of lymphoid and other tissues, and 3) acute reticulum cell neoplasia.

Etiology: family *Retroviridae*, subfamily *Orthoretrovirinae*, genus *Gammaretrovirus*

Economic Significance: causing economic loss to certain breeders, economic loss from runting syndrome or chronic neoplasia can occur when REV-contaminated vaccines administered to very young chickens.

Transmission:

High horizontal transmission and low vertical transmission.

Incubation Period: 1-7 days in acute form and 17-43 week in chronic form.

Clinical signs

- 1- Stunted, pale and runt chickens.
- 2- Weights of infected chickens may be 20–50% lower than controls by 3–5 wk after infection
- 3- Abnormal feather development.
- 4- Lameness or paralysis is rare even in birds with gross nerve lesions.
- 5- Mortality is rare in chickens.
- 6- Culling loss of over 50%.
- 7- Newly hatched chickens or turkeys that develop acute reticulum cell neoplasia have mortality rates often reach 100%.

Gross lesions :

- 1- Atrophy of the thymus and bursa of Fabricius.
- 2- Enlarged peripheral nerves.
- 3- Abnormal proventriculitis.
- 4- Enteritis and anemia.
- 5- Necrosis of the liver and spleen.
- 6- Acute hemorrhagic or chronic ulcerative proventriculitis.

Diagnosis

- 1- Presence of typical gross and microscopic lesions.
- 2- Demonstration of infectious virus, viral antigens, and proviral DNA in tumor cells has diagnostic value.
- 3- Detection of antibodies in sera from chickens.

Differential Diagnosis

- 1- Marek's disease and lymphoid leucosis (neoplastic and neural signs).
- 2- ND (nervous form)
- 3- Vitamins and minerals deficiency (B2, vitamin E and selenium).
- 4- Essential amino acids deficiency.
- 5- IBV (stunting).

Prevention and Control Procedures

- 1- Strict biosecurity.
- 2- Control of insect vectors and virulent fowl poxvirus infections.
- 3- Identification of shedder hens.
- 4- Detect RE viral antigen in albumen samples.

Treatment

No treatment for RE is known. Only Vaccination available as a contro