

Adenoviridae:

General characters:

1. Non enveloped, dsDNA viruses.
2. Icosahedral symmetry.
3. Replicate in nuclei, forming intranuclear inclusion bodies.

Genera of Adenoviridae:-

1-hydropericardium hepatitis syndrome (HHS):- is an acute disease of young chickens associated with anemia, hemorrhagic disorders, and hydropericardium.

Transmission:-

- 1-Vertical transmission has been described in progeny from breeder flocks infected with AAV serotypes 4 and 8.
- 2-young chicks in contact with infected chicks .

Clinical Findings:-

specific clinical signs, abrupt onset of mortality, lethargy, huddling with ruffled feathers, and yellow, mucoid droppings may be seen.

diagnosis

1-clinical signs.

2-Viral isolation.

3-restriction enzyme analysis, and PCR.

Treatment and Prevention

1-there is no treatment. Antibiotics may help prevent secondary bacterial infections. Sulfonamides are contraindicated if evidence of hematologic disease or immunosuppression is seen.

2-live and inactivated vaccines are used to control the syndrome.

2-Egg drop syndrome:-

is an aviadenovirus-induced disease characterized by the production of pale, soft-shelled, and shell-less eggs by apparently healthy laying hens.

Clinical Findings

1-pale-shelled eggs, quickly followed by production of soft-shelled and shell-less eggs. The thin-shelled and shell-less eggs are fragile, and the birds tend to eat them;

Diagnosis:

- 1-Clinical signs.
- 2-viral isolation.
- 3-A hemagglutination-inhibition test using fowl RBCs .
- 4-ELISA,
- 5-neutralization test can be used for confirmation.

Control:-

There is no treatment. Inactivated vaccines with oil adjuvant are available.

4- Parvoviridae:-**General characters:**

1. small, non enveloped DNA viruses.
 2. Icosahedral symmetry, single stranded DNA.
 3. Replicate in the nucleus forming intra nuclear inclusion bodies.
 4. Require rapidly- dividing cells for replication.
 5. Resistant to heat 56C for more than 60 minutes also resistant to lipid solvents, pH (3-9)
- Parvovirus: cause of enteric & systemic disease in dogs & cats (Feline pan leukopenia or feline infectious enteritis).

Etiology:- Parvovirus**Transmission:-**

Cats are infected oro nasally by exposure to infected animals, their feces, secretions, or contaminated fomites(eg, shoes, clothing).

Clinical Findings

1-Acute cases show fever ,depression, and anorexia. Vomiting usually develops 1–2 days after the onset of fever. Diarrhea may begin a little later but is not always present. Extreme dehydration develops rapidly. Affected cats

Diagnosis

- 1-clinical signs
- 2-Total WBC counts $<2,000$ cells/ μ L are associated with a poorer prognosis.

3-immunochromatographic test kit intended for detection of fecal CPV antigen.

Treatment and Prevention:-

3- Parenteral, broad-spectrum antibiotic therapy is indicated.

4-Recombinant feline interferon omega

5-inactivated and modified live virus vaccines

Poxviruses

1-brick or oval-shaped viruses

2- large double-stranded DNA genomes.

- Poxviruses exist throughout the world and cause disease in humans and many other types of animals. Poxvirus infections typically result in the formation of lesions, skin nodules, or disseminated rash.
- some poxviruses, such as smallpox (variola virus), no longer exist in nature, other poxviruses can still cause disease. These include monkeypox virus, orf virus, molluscum contagiosum, and others.

Transmission:-

Infection in humans usually occurs due to contact with contaminated animals, people, or materials.