University of Mosul Lecture No.: College of Veterinary Medicine Date:



Unit of Scientific Affairs Website:

Lecture title: Feline Infectious Enteritis (Feline Parvovirus, Panleukopenia Virus, Feline Distemper)

Lecturer Affiliation: Department of pathology and poultry diseases

Summary:

Feline infectious enteritis (FIE) is a disease caused by feline parvovirus (FPV) infection.

Feline parvovirus (FPV; also known as feline panleukopenia virus or feline viral enteritis) is a single-stranded, nonenveloped DNA virus closely related to the canine parvovirus group type 2 (CPV-2) that causes <u>canine parvoviral enteritis</u>.

How is feline infectious enteritis spread?

The virus is spread by either:

direct faecal-oral contact, indirectly after contamination of the environment or objects (for example water and food bowls, grooming equipment, bedding, floors, clothing and hands).

Feline panleukopenia is a highly contagious, often fatal parvoviral disease of cats worldwide. It is characterized by depression, anorexia, high fever, vomiting, diarrhea, and consequent severe dehydration. Kittens are most commonly and severely affected; sudden death is common. Kittens and adult cats develop sudden vomiting and bloody diarrhoea and it isn't uncommon for some cats to die rapidly.

Lesions

few gross lesions are seen with feline panleukopenia, although dehydration and anorexia are usually marked.

On necropsy, bowel loops may be segmentally dilated and have thickened, hyperemic walls. Petechiae or ecchymoses may be present on the intestinal serosal surfaces. Histologically, intestinal crypts are usually dilated and contain debris consisting of sloughed necrotic epithelial cells. Blunting and fusion of intestinal villi may be present. Eosinophilic intranuclear inclusion bodies are evident only occasionally in formalin-fixed specimens. Viral destruction of leukocytes may result in a notable lack of leukocyte . lymphocytic or inflammatory cell infiltration in bowel walls . Perinatally infected kittens may have noticeably small cerebella.

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Pregnant cats (known as queens) that are infected with parvovirus can pass the virus on to their unborn kittens and this can cause problems with brain development. These kittens will be born with a lack of development of the cerebellum, a condition known as cerebellar hypoplasia.

Feline Infectious Peritonitis (feline coronavirus)

Feline infectious peritonitis (FIP) is a viral disease of cats caused by certain strains of a virus called the feline coronavirus. Most strains of feline coronavirus are found in the gastrointestinal tract and do not cause significant disease. These are referred to as feline enteric coronavirus (FeCV).

What is the cause of FIP? FIP is associated with a viral infection called feline coronavirus. There are many different strains of feline coronavirus, which differ in their ability to cause disease.

How does a cat become infected with feline coronavirus?

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Most cats become infected with feline coronavirus through the fecal-oral route (oral contact with infected feces). It is estimated that about one-third of these cats shed the virus in their feces. Most cats only shed the virus for a few months, but a small percentage will shed the virus continuously for life.

Signs of Feline Infectious Peritonitis

Progressive distention of the abdomen due to fluid buildup

Lung involvement and difficulty breathing

Fever lasting 2 to 5 weeks

Loss of appetite

Weight loss

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Depression

History of illness, including longterm fever,, weight loss, and occasionally major organ system failure (kidneys, liver)

Eye and central nervous system signs may occur

About 50% of all cats have signs related to involvement of abdominal organs (kidney, liver, spleen, pancreas, lymph nodes)

Forms of disease:

Dry FIP. The dry form of FIP causes infections and inflammation. This can affect your cat's brain, eyes, liver, kidneys, lungs, and skin. Cats with this form often have seizures and may move in strange or uncoordinated ways. They might also drink and pee a lot, throw up, lose weight, and get jaundice. Wet FIP. This form of the disease causes fluid to collect in the belly, giving the cat a potbellied look. Fluid can also gather in the chest, making it hard for the cat to breathe. Wet FIP harms the blood vessels, leading to inflammation and fluid leaking from the blood into the abdomen and chest.

Note Infected cats can have symptoms of only one form or a mix of both.

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