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134 – Turkey coronavirus II

The disease process

The turkey coronavirus likes to replicate in the cells (enterocytes) lining the tips of the intestinal villi and in epithelial cells of the bursa of Fabricius. Malabsorption, poor digestion and scouring arise from the damage caused by turkey coronavirus to the cells it replicates in. Other impacts in the intestines are also possible.

Research suggests that mortality due to turkey coronavirus infection per se might be minimal and that other factors (see PoultryBYTES 133) including co-infections, such as with E. coli, exacerbate the effects of infection and increase the mortality. For example, antibiotics can reduce mortality in some cases of turkey coronavirus enteritis indicating a role in mortality for secondary bacterial infections.

Immunity

Turkeys recovering from turkey coronavirus enteritis are resistant to subsequent challenges by the same virus. This immunity is usually protective through the remainder of the flock's life. Passive/maternal immunity is not protective.

Diagnosis

As other enteric pathogens can cause similar clinical picture in turkeys, differential diagnosis necessitates the use of laboratory tests – virus isolation, electron microscopy, serology, detection of viral antigen or the detection of viral RNA.

The differential diagnosis of turkey coronal virus enteritis should include other enteric diseases of turkeys that have viral, bacterial or parasitic causes.

Control

Prevention is the preferred approach for controlling this disease. This can be difficult as the causative virus is shed for long periods after recovery.

The turkey coronavirus can be removed from depopulated premises by thorough cleaning and disinfection and leaving premises turkey free for a month.

There is no licensed vaccine and there is no effective treatment for this disease.